The importance of minerals and bubbles:

(1) The internal trigger test: mapping overpressure regimes for giant magma bodies

(2) Developing and incorporating instructional videos and quizzes as a blended and online learning component in an undergraduate optical microscopy curriculum.

By

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TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

THE INTERNAL TRIGGER TEST: MAPPING OVERPRESSURE REGIMES FOR GIANT MAGMA BODIES

Synopsis

Understanding silicic eruption triggers is paramount for modern-day systems. Here, we use phase equilibria modeling to determine to what extent upper crustal magma bodies erupt due to external triggers versus due to internal triggers wherein they naturally evolve until eruption is inevitable. Whole-rock compositions from four rhyolite very large or supereruption deposits are studied using rhyolite-MELTS modeling. By running simulations with varying water contents, we can track the evolution of fluid exsolution during crystallization. Isenthalpic (constrained heat content at constant pressure) models were run for the four compositions. In constrained-enthalpy scenarios, fluid is free to exsolve as crystallization proceeds, and the total system volume can increase or decrease accordingly. Volume changes are most affected as volatiles in the liquid phase exsolve into bubbles. In the scenarios where fluid exsolution is more extensive, we find that internal triggering ensues and a magma can erupt via overpressurization. In the deeper and fluid-undersaturated scenarios, external triggering is more likely because sufficient overpressure is only reached by exsolution once crystallinities are high, >40 wt. %. In comparing crystallinities at modeled eruption overpressures with observed crystallinities, we find that although internal triggering is possible for all systems, external triggering is more likely in fluid-saturated conditions and in magmas stored at 300 MPa or deeper. These results constrain a

window of eruptibility in the crust shallower than ~10 km, where silicic magmas need to be residing in order to reach critical overpressure values for eruption.

Introduction

Constraining the pre-eruptive conditions and evolution of large (>100 km^3) and super-sized (>450 km^3) high-silica magma reservoirs is crucial in anticipating when and how an explosive eruption might transpire. It has been suggested that supereruptions can take place on timescales from a few days (e.g., Bishop Tuff; Wilson & Hildreth 1997) to over months or even years (e.g., Oruanui Tuff; Wilson et al. 2006), which brings questions on how these eruptions are triggered and sustained. Importantly, many silicic magma bodies seem to be stored and erupt from shallow depths – to what extent is this pattern related to the ability of magmas stored at various depths to erupt is not well understood.

It has been argued that internal triggering due to buoyancy driven over-pressurization (Caricchi et al., 2014) and volatile exsolution (Blake 1984, Fowler et al. 2007, Fowler & Spera 2012) can be an important mechanism to induce eruption. In contrast, it has been suggested that external triggering (e.g. earthquakes, magma injection, roof strength failure) is required for eruption (Gregg et al., 2012; Gregg et al., 2015). In this study, we explore the potential role of internal triggering of rhyolitic magma reservoirs by modeling the volume changes due to crystallization and bubble exsolution under fluid-saturated and under-saturated conditions.

In a closed system, the total volume can increase or decrease depending on which phases form during solidification. It is the formation of bubbles that has the greatest effect on volume change. This is because, at low pressure, the difference in density between bubble and melt is greater than the difference in density between crystals and melt, such that the volume increase due to

volatile exsolution can more than offset the volume decrease due to crystallization (Figure 1.). If the volume of the system increases, it will contribute to an overpressurization of the system, priming the magma body for eruption (Blake, 1984). If the pressure increase occurs over a small

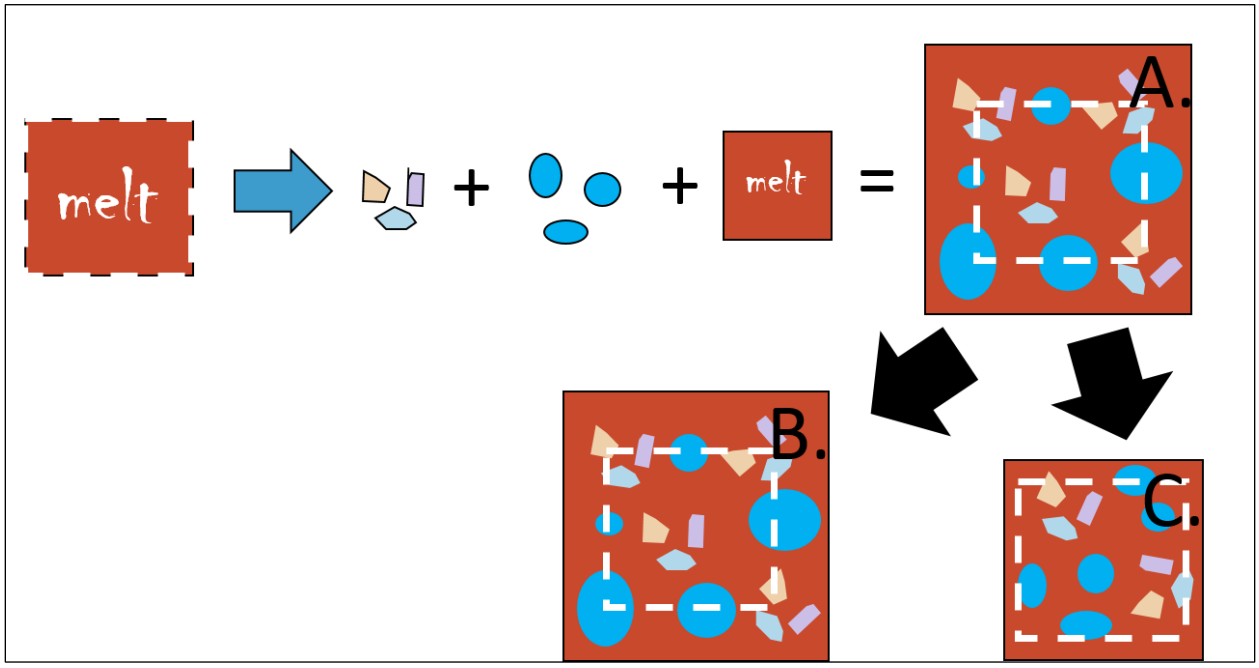

Figure 1. (A.) As a system of a given volume (white dashed square) crystallizes and exsolves fluids into bubbles, the overall system volume will increase. (B.) If the density of the fluid phase is greater, the volume change will be more significant than if (C.) the fluid phase is less dense.

time interval, the surrounding rock may not be able to expand quickly enough to accommodate the expanding magma body, which could lead to eruption (Jellinek and DePaolo, 2003; Caricchi et al., 2014).

Using the phase equilibria calculation tool rhyolite-MELTS (Gualda and Ghiorso, 2015), we model the solidification path of magmas with compositions representative of erupted silicic magma systems, characterized by crystallization at a variety of crustal depths (85 MPa to 350 MPa). We explore the effects of varying water content and pressure in the crust on priming and internal triggering of eruptions.

Methods

Rhyolite-MELTS Calculations

Table 1

	Oruanui	Mamaku	Early Bishop	Late Bishop	Peach Spring	Young Toba	Young Toba
SiO2	75.63	76.20	77.7	75.51	75.08	71.99	74.98
TiO2	0.20	0.18	0.07	0.21	0.21	0.27	0.19
Al2O3	13.37	13.56	12.3	13.00	13.25	15.92	13.3
Fe2O3	0.45	0.39		0.31	0.28	0.60	0.46
FeO	1.22	1.01	0.70	0.73	0.71	1.96	1.44
MnO	0.06	0.06			0.04	0.08	0.07
MgO	0.27	0.15	0.01	0.25	0.26	0.48	0.44
CaO	1.62	0.83	0.45	0.95	0.62	2.08	1.62
Na2O	4.08	3.79	3.91	3.35	3.72	2.8	2.97
K2O	2.96	3.66	4.82	5.55	4.97	3.85	4.54
P2O5	0.02	0.01			0.01	0.03	0.02
H2O	3.05-3.55	3.40-3.85	4.7-5.2	4.5-5.0	5.50-5.85	7.1	7.90
Pressure	85	100	175	175	225	300	354
Crystal %		7-26% (Milner et al, 2003)	(Gualda et al, 2004)	(Gualda et al, 2004)	(Pamukcu et al., 2015)	12-40% (Aldiss and Ghazali, 1984; Chesner, 1998)	12-40% (Aldiss and Ghazali, 1984; Chesner, 1998)
Sample Ref	Bt-free Avg. (Allan et al, 2012)	Type 1 average (Begue et al, 2014)	(Hildreth, 1979)	(Hildreth, 1979)	(Pamukcu et al., 2013)	12A1 (Chesner & Luhr 2010)	23A4 (Chesner & Luhr, 2010)

We use whole pumice compositions from the literature as a proxy for pre-eruptive magma compositions. We assume closed-system crystallization from an initially crystal-free state. Importantly, we are not trying to model in detail any of the selected systems. Instead, we are interested in using the pumice compositions primarily as reasonable magma compositions for each of the studied pressures in the shallow crust. It is important to use different compositions as a function of pressure given the influencing effect of pressure on the composition of silicic melts (Gualda and Ghiorso, 2013).

We chose compositions of five explosive, high-silica, large to super-sized eruptions that have been estimated to have formed at a variety of pressures - from shallow (85-100 MPa, Oruanui and Mamaku) to deep (300-350 MPa, Young Toba Tuff) (table 1). Crystallization pressures were determined previously with the rhyolite-MELTS geobarometer using major-element glass inclusion compositions (Gualda and Ghiorso, 2013; Bégué et al., 2014; Gualda and Ghiorso, 2014; Pamukcu et al., 2015).

We use isenthalpic crystallization sequences (fixed pressure, constrained enthalpy) in this study because equal energy steps allow for better characterization of nearly invariant (i.e. nearly isothermal) crystallization, which is common for silicic systems (see Gualda et al. 2012, among many others). These calculations are equivalent to isobaric crystallization sequences (fixed pressure, constrained temperature), but they avoid the problem of using fixed temperature steps during rapid solidification over 2-3 ºC during nearly invariant crystallization. Rhyolite-MELTS (Gualda et al., 2012) calculations were performed with an updated version of MELTS_Excel (Gualda and Ghiorso, 2015) with which isenthalpic

calculations can be performed, which will be made available at http://melts.ofm-research.org.

For each composition, we determined water solubility at the liquidus using rhyolite-MELTS. We performed simulations at water saturation and using water contents decreasing by 0.1% from this initial value. For each simulation, we chose initial temperatures by determining the liquidus using MELTS_Excel. Starting enthalpy values were calculated by rhyolite-MELTS for the liquidus temperature. We used enthalpy increments of 0.5 kJ to cause progressive crystallization of the system; we interrupted simulations once ~70 wt. % crystals had formed. FeO/Fe_2O_3 ratios were set to yield a delta NNO of 0 at the onset of the simulation, but then we allow f_{O2} to vary over the course of the simulation.

Overpressure Calculations

We are interested in calculating magmatic overpressure as a function of crystallization. We assume a closed-system and allow it to expand or contract while maintaining a constant pressure. To calculate the overpressure (dP) in MPa, we use the relationship:

$$dP = 1/V*dV/\beta \text{ , } (1)$$

where β is the compressibility of the entire system (1/MPa), V is the volume of the closed system (m^3), dV is the change in volume relative to the initial volume.

Rhyolite-MELTS provides the necessary information for these calculations (density, mass, and volume of phases present); values of crystallinity (mass solids/mass system), porosity (volume water/ volume system), and overpressure were calculated from standard MELTS_Excel output (Gualda and Ghiorso, 2015).

Our calculations are limited in two ways. First, they do not take into account the effect of changing pressure on phase equilibria. We are most interested in the behavior of the system with overpressure values of 25 MPa or lower, in which case the effect on phase equilibria is not very significant (e.g. Gualda et al. 2012). Second, our overpressure calculations assume the crust is rigid; in other words, we assume the timescales over which crystallization takes place are faster than the timescales over which the surrounding crust can deform to accommodate the change in volume. There is currently no coupled phase equilibria-crustal deformation model that can properly model the behavior of such systems more realistically; our calculations provide an important end member scenario.

Our simulations use a pure-H_2O fluid, so we adjust water content to achieve fluid saturation or undersaturation. The next most abundant volatile phase in most systems, CO_2, acts as a buffer for the amount of H_2O present in the fluid phase. However, the partial volumes of CO_2 and H_2O in the fluid phase are very similar, so the first-order behavior of a pure-H_2O and H_2O-CO_2 fluid phases will be the same, at least in the context of the calculations performed here.

Results

The results of our models show the evolution of crystallinity and porosity as a function of crystallization and fluid exsolution (figure 2). As crystallization progresses, we find that overpressure varies as magma expands or contracts. We consider first the early-erupted Bishop Tuff composition, as an example (figure 2 a,b), to illustrate some of the key observations. Under fluid-saturated conditions, the volume of the system always increases. In contrast, under fluid-undersaturated conditions, there is initially a period of crystallization that causes a decrease in total system volume and is thus underpressurized (negative overpressure). This is followed by

a system volume (and overpressure) increase after bubbles start to exsolve, leading to kinks in overpressure vs. crystallinity space (figure 2a). In overpressure vs. porosity space, we observe

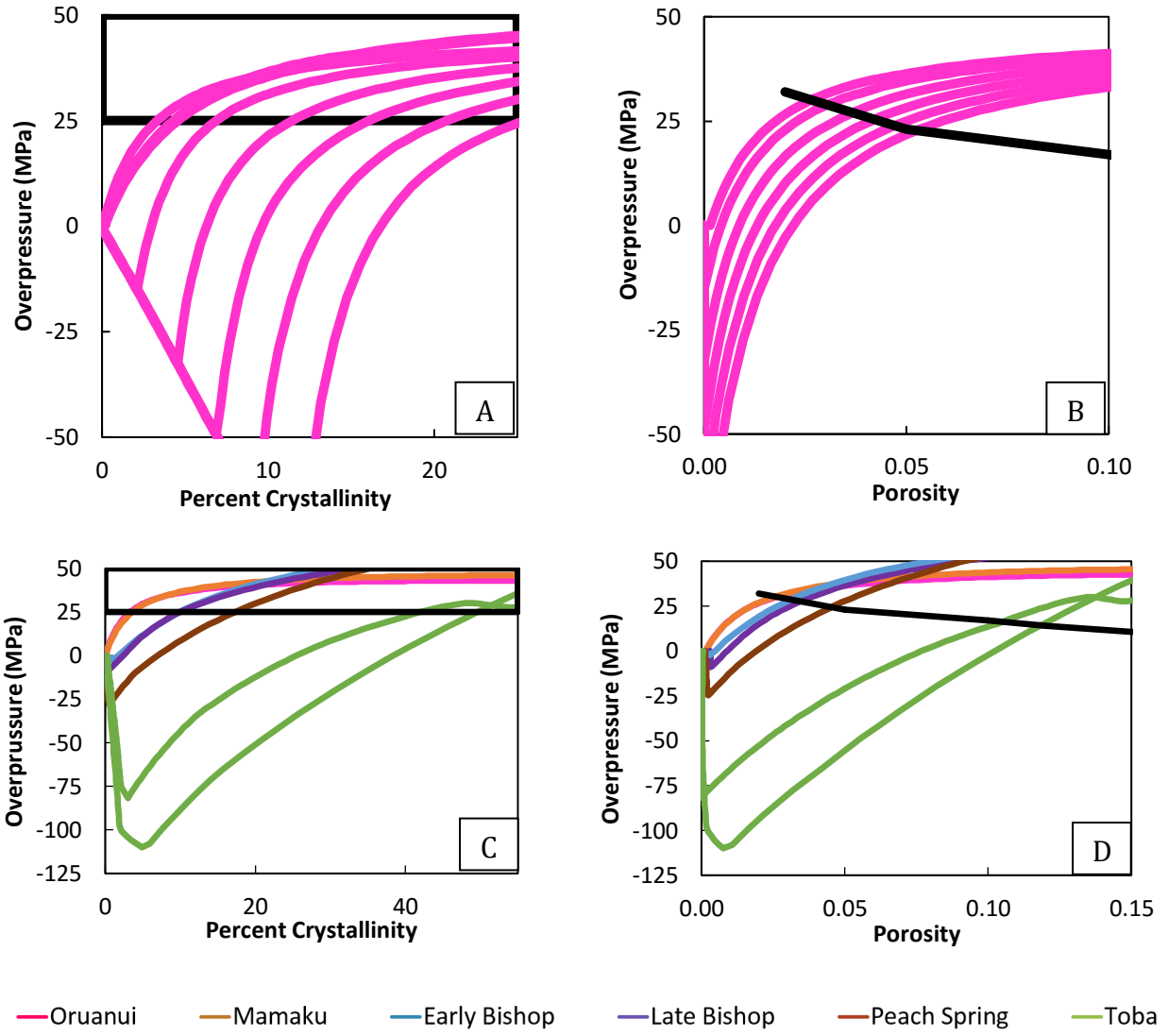

Figure 2. We present our results from the isenthalpic modeling runs. Overpressure thresholds are represented by the black lines, with (A,C) interpreted from Jellinek and DePaolo, 2003 and (B,D) from Spieler et al., 2004. The figures presented represent magma body cooling by crystallization (A,C) and by porosity increase (B,D). Figures (A,B) show the Oruanui composition (at 85 MPa) with each curve representing a different water content. Fully saturated conditions are the top-most curve, with each curve below containing 0.1 wt% less H2O. Figures (C,D) show the fully saturated condition for all magma compositions studied: Oruanui, Mamaku, Early and Late Bishop, Peach Spring, and Young Toba.

that the lower the initial water content, the larger the underpressurization at the onset of bubble exsolution (figure 2b). The pattern observed for this composition is largely consistent for all systems studied (equivalent diagrams for all compositions are presented in the appendix).

In figure 2 c,d, we present the results for initially fluid-saturated conditions for all compositions studied. We find that in the shallower samples from New Zealand (<150 MPa), overpressure always increases with crystallinity. For higher-pressure systems (>150 MPa), however, overpressure initially decreases, showing that the volume increase due to bubble exsolution is initially insufficient to offset the volume decrease due to crystallization. As crystallization proceeds, the rate of bubble exsolution increases, leading to increasing overpressures. The magnitude of this initial underpressurization increases with pressure (figure 2 b,c).

Discussion

In our calculations, we explore whether the combination of magma depth and composition can lead to eruption solely due to fluid exsolution and overpressurization. We explain our results by examining how the fluid phase and pressure changes affect eruptibility. We check our models by comparing model results to general observations from the natural systems, and we use these comparisons to present a way to predict the triggering potential of a given system. Finally, we discuss the implications of our models for the depths from which magma can erupt.

Internal Triggering by Volatile Exsolution

Our models track the evolution of overpressure as crystallinity or porosity increases (Fig 2 a-d). We assume that eruption will take place when an overpressure threshold is reached (Rubin, 1995; Jellinek and DePaolo, 2003; Caricchi et al., 2014; Degruyter and Huber, 2014). Threshold values in the range of 10-50 MPa are commonly considered (Jellinek and DePaolo, 2003;

Caricchi et al., 2014; Degruyter and Huber, 2014). We choose to incorporate a threshold overpressure of 25 MPa, which was determined for rhyolite viscosities (Jellinek & DePaolo 2003) assuming that the limiting factor is the thermal viability of a dike propagating to the Earth's surface (Rubin, 1995) (fig.2a,c). The 25 MPa value we use is comparable to the 20 MPa overpressure value chosen by Degruyter & Huber (2014) in their study on eruption frequency. The specific choice is not very significant as long as the threshold is in between 10 and 50 MPa. Spieler et al. (2004) demonstrated that porosity can have a significant impact on eruptibility, given that magma fragmentation is easier at higher bubble volumes, which can be illustrated in overpressure vs. porosity space (Spieler et al., 2004) (Fig. 2b,d).

We find that all systems cross the minimum overpressure value required for eruption regardless of the specific choice of overpressure threshold. The crystallinity and porosity at which the threshold is reached is a function of pressure, with shallower magma bodies crossing the overpressure threshold at lower crystallinities and porosities (fig 2 c,d). We conclude that eruptions can be internally triggered simply due to the effect of magma expansion during crystallization and bubble exsolution.

The Effect of the Fluid Phase on Eruptibility

We find that the timing of volatile exsolution with respect to crystallization directly affects eruptibility. Taking, for instance, the Early Bishop Tuff (crystallization pressure of 175 MPa; 5.2 wt. % H_2O at fluid saturation) as an example (figure 2a), we see that the fluid-saturated curve shows a steady increase in volume (and therefore, overpressure) as crystallinity increases, until a sufficient overpressure is reached for internal triggering of an eruption at ~8 wt. % crystallinity. If the melt is initially under-saturated in fluids, higher crystallinity is required to reach sufficient

overpressures for internal triggering. This effect is due to the delayed onset of exsolution of fluids in the fluid-undersaturated cases.

Pressure Control on Eruptibility

We observe this pattern of increasing overpressure with increasing crystallinity for all compositions and pressures studied. Differences between the curves (shape, where they intersect the threshold) show that crystallization pressure directly affects eruptibility. The density of the fluid phase increases with depth (Appendix B), which leads to a smaller volume increase due to bubble exsolution at greater depths. In the case of the Toba compositions (figure 2 c,d), the initial decrease in overpressure values appears as though the melt is undersaturated; however, this is not the case - the fluid phase is present in each of these data points. Presence of the fluid phase may not initially account for volume increase (and thus overpressure increase) under greater pressures. As a result, the greater the storage pressure, the greater the total bubble volume necessary to reach the overpressure needed for internal triggering.

Overpressure Threshold vs. Lockup Threshold

Every example composition has the capability to evolve to an overpressure where internal triggering is possible. However, magmas at higher pressure reach the overpressure thresholds at crystallinities approaching 50% (figure 3). At such high crystallinity, the crystal framework will make magma immobile (Marsh 1981, Caricchi et al. 2014), and prevent its eruption. We thus conclude that magmas at depths greater than 300 MPa require other mechanisms to trigger eruption at lower crystallinities. We can establish a window of eruptibility 10 km below the Earth's surface where internal triggering is possible and likely, depending on fluid content. In fact, we do not know of any examples of rhyolitic systems for which eruption is thought to have occurred from depths greater than 350 MPa, suggesting that internal triggering (or at least

priming) plays a critical role in causing eruption. Magmas stored at greater depths are likely to fully solidify without a significant erupted component.

Natural vs. Modeled Crystallinity

Since our models provide a prediction about the approximate crystallinity at which eruption takes place, we can compare our results to crystallinities determined from the erupted products of our chosen systems. Using the Early-erupted Bishop Tuff composition as an example, the crystallinity required to reach the critical overpressure is ~8 wt. % under fluid-saturated

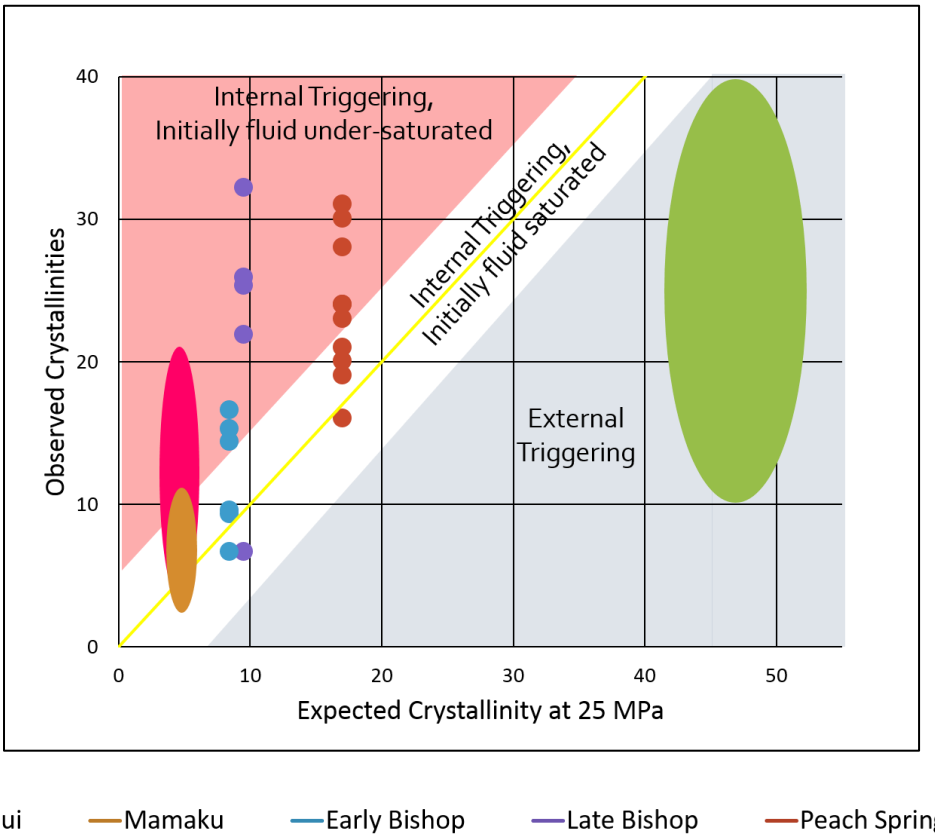

Figure 3. This triggering regime diagram plots our modeled crystallinity at expected eruption overpressure (25 MPa) (considering fluid saturation) against expected crystallinity from associated samples. Crystal content points (Bishop, Peach Spring) were calculated from prior point-count methods(Gualda et al., 2012; Pamukcu et al., 2013), and the large elliptical areas (Oruanui, Mamaku, Toba) represent qualitative crystal contents reports from previous studies(Aldiss and Ghazali, 1984; Chesner, 1998; Milner et al., 2003). We divided zones where internal triggering is possible and where external triggering is necessary. Furthermore, we continue to split the zone of internal triggering into areas that were likely initially fluid saturated or under-saturated.

conditions. This value is within the range (6.63-15.25%) of crystal contents measured from natural samples (Gualda et al, 2004). Expanding this to the other compositions used, we find that the intersections of each fluid saturated curve with the thresholds for Mamaku, Oruanui, Late-erupted Bishop Tuff, and Peach Spring (figure 2) are also consistent with the observed crystallinity of samples from these deposits (fig 3a). It is important to note that in comparing crystallinities, we use the fluid saturated condition for all models. Since there is a general agreement between predicted and observed values, this suggests that our model captures essential aspects of the evolution of rhyolitic magmas within the shallow crust, in general, and of the specific systems considered, in particular. In other words, the overall agreement suggests again that internal priming is important in driving rhyolitic eruptions.

The Internal Trigger Test

We can take these comparisons of observed and modeled crystallinities and define several regimes in terms of the potential for internal triggering versus the need for external triggering (Figure 3). In a scenario where the fluid-saturated, modeled crystallinity is higher than the expected sample crystallinity (i.e. Young Toba Tuff), we denote a zone in which external triggering is the likely mechanism for eruption – in this case, the total volume increase due to bubble exsolution is insufficient to generate enough overpressure to trigger an eruption, even under fluid-saturated conditions. In a scenario where the fluid-saturated, modeled crystallinities *match* observed crystallinities, we conclude that internal triggering is possible and probable. Compositions that yield expected crystallinities higher than modeled crystallinities suggests overpressurization beyond the critical threshold (25 MPa). Since this scenario is unlikely, we interpret these example compositions as being initially fluid undersaturated. This implies that some amount of crystallization would have to take place prior to fluid saturation. We can expand

on this concept, and we interpret the region in which we see a match between observed and model crystallinities as a zone of *initial* fluid saturation. This, in turn, proves this diagram useful for estimating (albeit crudely) the initial state of fluid saturation. H_2O-CO_2 compositions of glass inclusions from the Bishop Tuff have been interpreted to reflect early fluid saturation of Early-erupted Bishop Tuff magmas (Wallace et al., 1995, 1999), while the state of fluid saturation is less clear for the Late-erupted Bishop Tuff. We interpret these results to be consistent with our results here that suggest that the Early-erupted Bishop Tuff was initially fluid saturated, while the Late-erupted Bishop Tuff, with significantly higher crystallinity (Pamukcu et al., 2012) would have been fluid-undersaturated at the onset of crystallization (Figure 4). This internal trigger test would be useful for determining the potential for internal triggering for any given system where the pressure (depth) and initial magma compositions can be determined.

Internal vs. External Triggers

Our results emphasize the potential role of magma priming and internal triggering in promoting eruption. This is not necessarily at the exclusion of external triggers, particularly in light of circumstantial evidence that external triggers can lead to eruption (Pallister et al. 1992, Walter et al. 2009). Across the Andean arc, correlations between earthquakes and volcanic eruptions show that only a fraction of the active volcanoes within range of a given earthquake actually erupts, which led Watt et al. (2009) to the important conclusion that "*triggered eruptions occur at volcanoes that were already likely to erupt in the near future, had the earthquake not occurred, but the occurrence of the earthquake results in systems already primed for eruption crossing an eruption threshold*". In this context, we concede that eruption of a primed magma body can be ultimately triggered by an external event (e.g. earthquake, neighboring eruption, magma injection). However,

priming plays a critical role in conditioning the magma body to eruption: internal evolution leads to a condition in which eruption is imminent, at which point the action of external triggers is the final blow, rather than the force driving eruption.

Conclusions

We use rhyolite-MELTS simulations to investigate the effect of bubble exsolution on priming rhyolitic magmas and internally triggering eruptions. We show that the volumetric expansion due to bubble exsolution is large enough to cause internal triggering by overpressurization, particularly at shallow depths and at high volatile contents. Our models show that the density of the fluid phase in deeper systems increases to an extent in which it hinders volumetric expansion, and thus, prevents internal triggering. We find that magmas crystallizing at depths shallower than 270 MPa (<10 km) are prone to priming and internal triggering, while deeper magmas are unlikely to erupt. Internal triggering is facilitated by higher volatile contents, with the maximum potential for internal triggering naturally happening for systems that are initially fluid saturated. Comparison of modeled crystallinity at 25 MPa overpressure to the crystallinity of natural samples shows good agreement, suggesting that internal triggering is an important process. In more detail, we argue that systems in which modeled crystallinity matches that of erupted products are likely to have been internally triggered, and we infer fluid saturation at the onset of crystallization. When modeled crystallinity is lower than observed, we infer that the magma body was initially fluid undersaturated, which required additional crystallization until internal triggering could be reached. For cases in which modeled crystallinity is higher than observed, internal triggering is unlikely, and an external trigger may be

necessary. The method we present can be useful in investigating initial fluid saturation conditions and eruptibility of any magma body with known crystal contents.

CHAPTER 2

DEVELOPING AND INCORPORATING INSTRUCTIONAL VIDEOS AND QUIZZES AS A BLENDED AND ONLINE LEARNING COMPONENT IN AN UNDERGRADUATE OPTICAL MICROSCOPY CURRICULUM.

Synopsis

Optical mineralogy is a skill that many undergraduate students struggle to master, but which is essential to advancement in the Earth Sciences. It is a skillset typically introduced in a microscope lab supporting lessons on crystallography, chemistry and mineral analysis in the classroom. Mastering the basic skills is required for proper identification and characterization of minerals and for more advanced work in petrography. This project asks: Will exposing undergraduate students to techniques in optical microscopy using videos prior to lab improve the acquisition of skills required to describe and distinguish Earth materials? Eight videos were developed with accompanying pre-lab questions and hosted online as part of semester-long, undergraduate Earth Materials courses at Vanderbilt University and Illinois State University. The focus of the videos and supporting questions is specifically on microscopy skills rather than on optical microscopy concepts, which were taught during lab. The videos were made available a few days before each lab with the intent of familiarizing the student with how to use the microscope to obtain and interpret images and information in the following lab. Multiple choice, formative-style questions accompanied the videos in an online-hosted assignment for Vanderbilt students. Lab testing grades for Vanderbilt students in the 2015 video implementation year were comparable or improved compared to the 2014 non-implementation year. We find that self-

reported confidence of students improved from this activity and student feedback is positive. The videos along with the associated quizzes are now available as an online resource at earthopticmineralogy.com.

Introduction

Undergraduate students have difficulty building basic microscopy skills that are essential for their progression as Earth scientists (Moecher, 2004). Although many Earth Science departments are phasing out the teaching of optical microscopy, it has been shown that including this active and hands-on skill is an integral part of an undergraduate geology education (Gunter, 2004; Wirth, 2007; Reinhardt 2004). Online digital learning tools including videos are becoming increasingly common in the classroom, implemented to advance and diversify the learning experience. Specifically, technology is becoming more present in mineralogy curricula, and the use of these resources range from all-digital programs to supplementary tools in the classroom (Milliken et al, 2003; Hoisch et al, 2010). It is important, as instructors, to evaluate which tools can benefit students the most (Manduca, 2007).

In this project, we sought to help students build skills in optical microscopy by creating online instructional videos and formative assessments for use in an Earth Materials course at Vanderbilt. Specifically, we have developed videos to show students how to operate the microscope, what they should be looking for when examining minerals, and to highlight the observation protocols and spatial skills they will need to use while doing so. It is a challenge for instructors of optical microscopy to describe what to see in the microscope to students with no microscope experience; furthermore, many of the observations the students need to make derive from examining of moving, rather than static, images. Using words or even pictures to explain

these dynamic images is frustrating and slow. Part of the motivation for creating these videos is to eliminate that non-optimal interaction in lab and better prepare students for mastering skills and techniques in optical microscopy. The videos, which are presented to the students prior to lab, are accompanied by low-stakes quizzes to allow students to assess their own understanding. Thus, they not only enable students to come to lab prepared to focus on certain skills but increase the time available for teaching conceptual foundations.

Video Development

Petrographic thin sections and grain mounts were filmed using a Nikon D5100 digital SLR camera, attached to a Zeiss Axioscope 40APol petrographic microscope using an Amscope adapter. For the interference figure videos, the specifically oriented slide 44E 4205 by WARD Scientific was used; all other slides are Vanderbilt University teaching materials. Raw footage was imported and edited on iMovie. Each video was edited to approximately five minutes in length because shorter videos are more effective in communicating instructional material (Risko et al., 2012, Guo et al., 2014, Brame et al., 2015). Voice recording was performed on a Snowball condenser microphone, using the cardioid polar pattern with a 16-bit word rate. Any diagrams were either imported or originally created using Microsoft PowerPoint shapes (fig. 4). Videos were then uploaded to YouTube before they were embedded in pre-lab quizzes created using Google-forms. All pre-labs are available in the supplementary resources and also on an open-source website created on WordPress: earthopticsmineralogy.com.

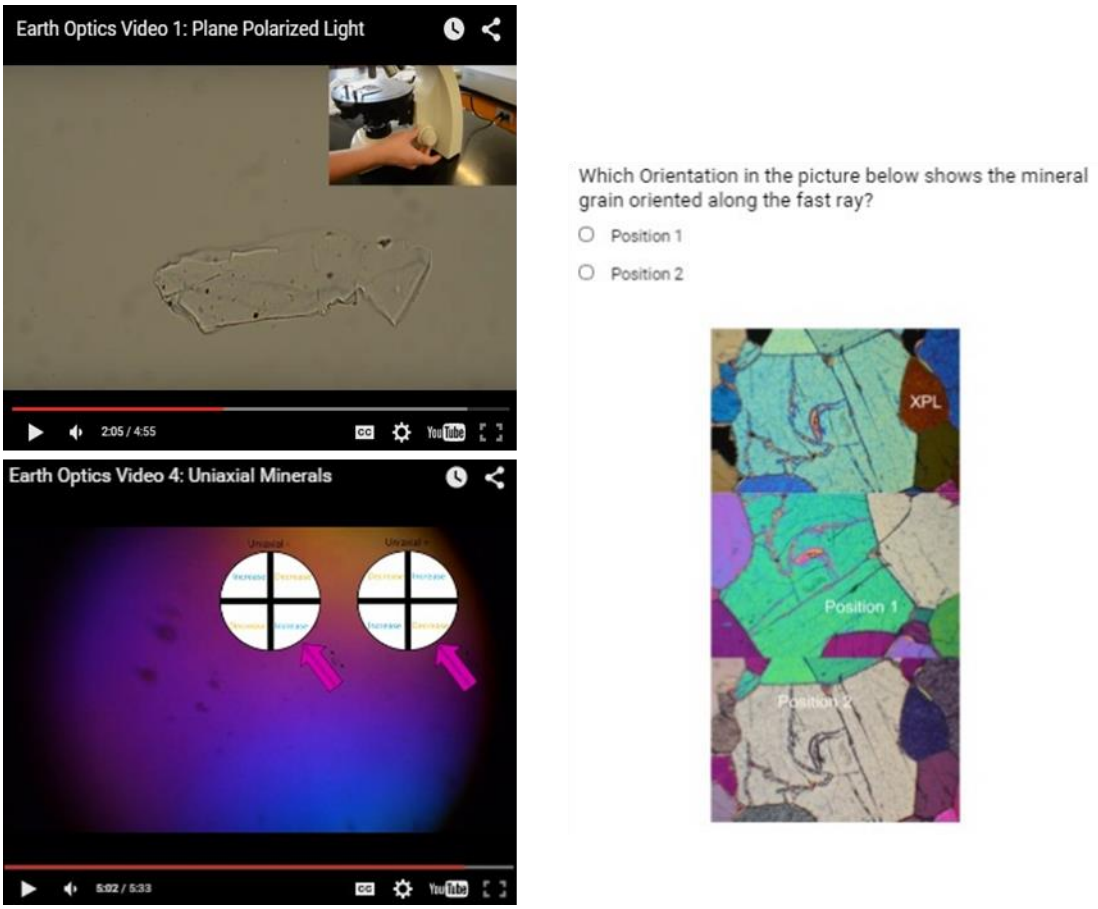

Figure 4: Examples of frame captures from the YouTube pre-lab tutorial videos and assessments. Videos show incorporation of how one should operate the microscope with one's hands (A) as well as diagrams necessary for describing certain properties of minerals in thin section (B). The frames shown are part of lessons on the determination of relief (A) and uniaxial optic sign (B). All videos are associated with accompanying quizzes that target video comprehension (C).

The videos cover four general topics:

(1) Plane-Polarized Light: color, pleochroism, relief, transparency (1 video);

(2) Cross-Polarized Light: Interference colors, extinction angles, birefringence, isotropy vs. anisotropy, fast & slow ray (2 videos);

(3) Uniaxial Minerals: Interference figures, optic sign, flash figure, characterization along epsilon and omega (2 videos);

(4) Biaxial Minerals: Interference figures, optic sign, 2V angle, flash figure, characterization along alpha, beta, and gamma (2 videos).

Implementation and Assessment Design

In Fall 2015, the videos and quizzes were used as part of Earth Materials at Vanderbilt University and Mineralogy at Illinois State University. All participating students were above 18 years of age, signed a Notification of Educational Study, and were given unique password-protected identification numbers known only by the first author in compliance with the Family Educational Rights and Privacy Act (FERPA) and the Institutional Review Board (IRB).

At Vanderbilt University, 7 students were enrolled for Fall 2015, including a mix of Earth and Environmental Science majors and minors ranging from sophomores to seniors. Prior course experience varied, but prior microscope experience was the same. No students were exposed to the petrographic microscope before taking the Earth Materials class. We assigned one video per week for the first half of the Fall semester. Short formative assessments focusing on comprehension accompanied the videos in a Google Forms-hosted assignment (fig 4c). The videos and quizzes were emailed to students 2-3 days before lab. This assignment was mandatory and credit was given to the students based on completion. Summative assessments included weekly homework assignments and a lab final that were unchanged from previous iterations of the course.

At Illinois State University, 28 students were enrolled in Mineralogy. The class was comprised mostly of juniors and seniors; all of them were majoring in the Geology Department, with the exception of one hydrogeology graduate student at the master's level. The videos and quizzes

were available as a resource and were not mandatory. They were emailed to the students one day before lab.

Analyzing the Effectiveness

The effectiveness of the videos was assessed in three ways: (1) analysis of a weekly questionnaire of Vanderbilt University students; (2) comparison of homework and lab final grades of the Vanderbilt University students in 2015 (when videos were used) with those from 2014 (no videos used); and (3) comparison of viewing practices of Vanderbilt and Illinois State students using data from YouTube analytics. The answers to the questionnaires after each week were compiled and compared. Combining data from Vanderbilt University students and Illinois State University students is useful in yielding insight to its applicability across different types of institutions.

Effectiveness at Vanderbilt University

Vanderbilt students were surveyed each week to determine their effective response to pre-lab assignments. Questions included: 1) Did this exercise contribute to your confidence in lab and 2) Did this exercise contribute to your confidence in applying these skills while completing homework after lab? The students could answer from four options: “Yes, a lot,” “Yes, a little,” “No, not that much,” and “Not, not at all.” Results from the surveys show that the average response of self-reported student confidence levels is between “Yes, a lot” and “Yes, a little” (Figure 5). The students indicated that these exercises contribute to their confidence every week (except perhaps in doing the homework, week 1).

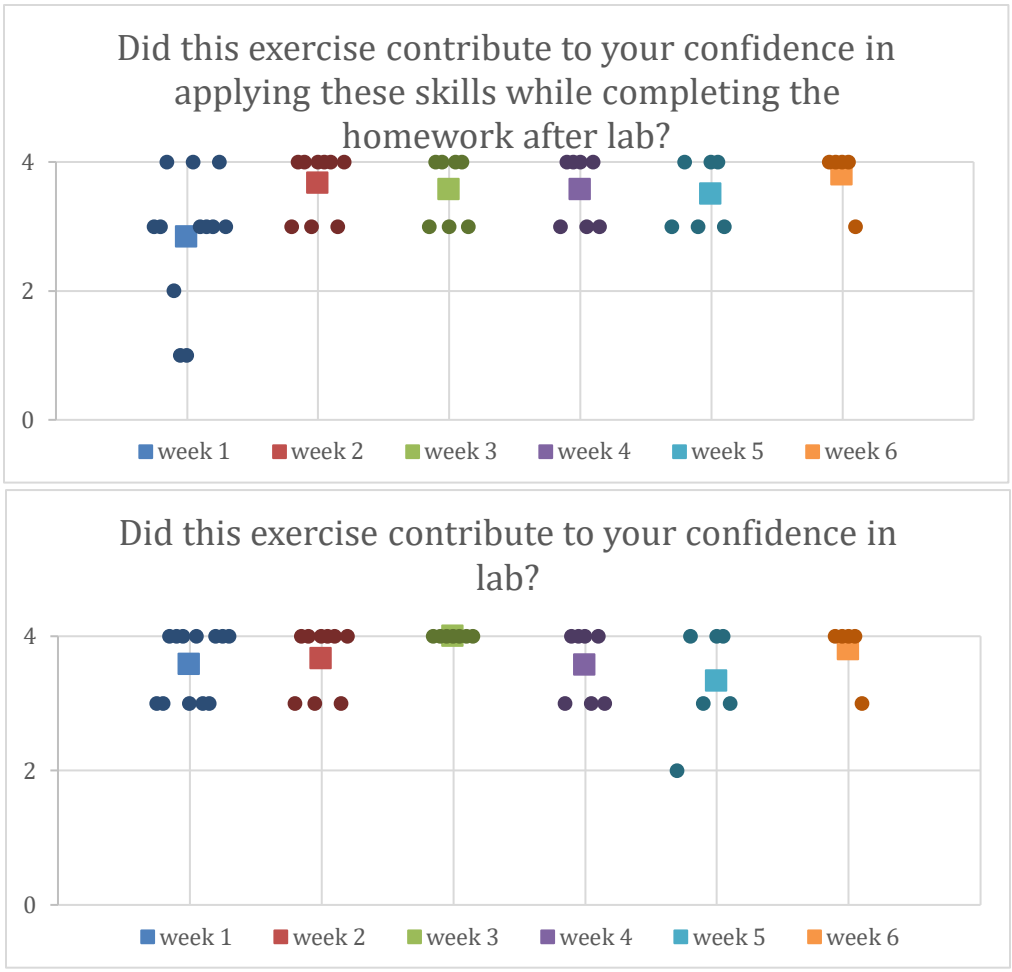

Figure 5: Student assessment of pre-lab exercises. Both graphs present results from the weekly survey given to Vanderbilt students. The students could answer in a scale of four, ranging from YES, very much, to NO, not at all. Boxes denote average responses each week and individual data points represent individual responses.

Vanderbilt University homework and lab final grades were compared between 2014, a year with no videos, and 2015, the year of this study (Figure 6). After performing a specific Bayesian estimation known as the BEST test (Bayesian Estimation Supercedes the T-test; Kruschke, 2012), we find that there is an 87% probability that the lab final scores in 2015 were higher than the scores in 2014, with a BEST estimate that the scores in 2015 were 7.1 points higher (out of 100), and a 96% probability that the 2015 scores had a smaller standard deviation than 2014 (BEST estimate is that the standard deviation in 2015 was 9.5 points out of 100 smaller). These data show that there was a 64% probability that the students in 2015 scored at least five-points

higher and 80% probability that the students in 2015 scored at least two-points higher (out of 100). These data are presented in full as part of Appendix C. Although these estimations show promising results, we note that it is possible that other variables contributed to the observed differences, such as a general improvement in teaching or a stronger student population. Furthermore, there were only 11 students in the 2014 dataset and 7 students in the 2015 dataset.

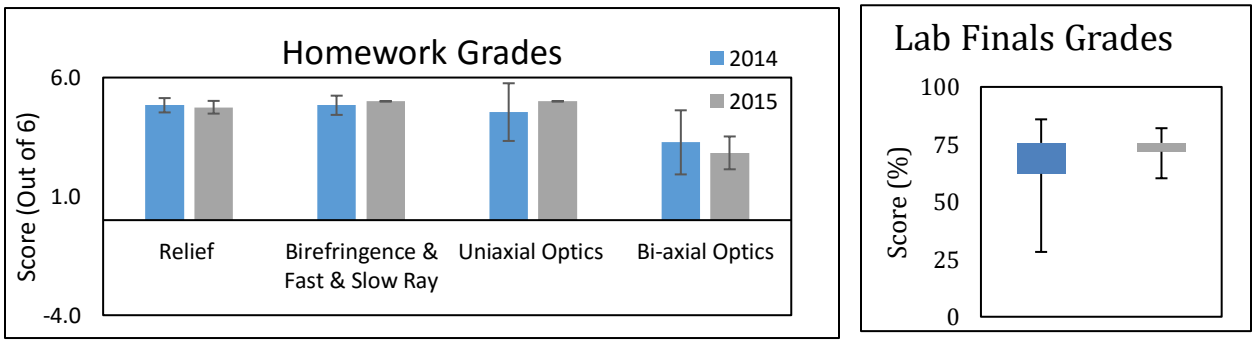

Figure 6: Impact of pre-lab exercises on student performance. Comparison of homework grades (A) at Vanderbilt University show small differences. Comparison of lab final grades (B) at Vanderbilt University show that the year with the videos has a higher median and mean with a smaller standard deviation.

The speed in which the 2015 students completed the exercises was far greater than the 2014 students. As a result of this, the 2015 students completed 29 exercises with different thin sections over the course of the optical microscopy unit, while the 2014 students completed only 22 exercises. This observation suggests that students may be attaining skills faster as a result of the implementation of these videos.

When we used YouTube analytics to probe Vanderbilt students' viewing patterns, we observed a weekly spike in views corresponding to preparation for each lab. We also saw, however, additional spikes in views corresponding to midterm evaluations and the lab final. Revisiting the videos for the midterm and final assignments was unprompted and suggests that students found these resources to be a useful tool in studying (Figure 7).

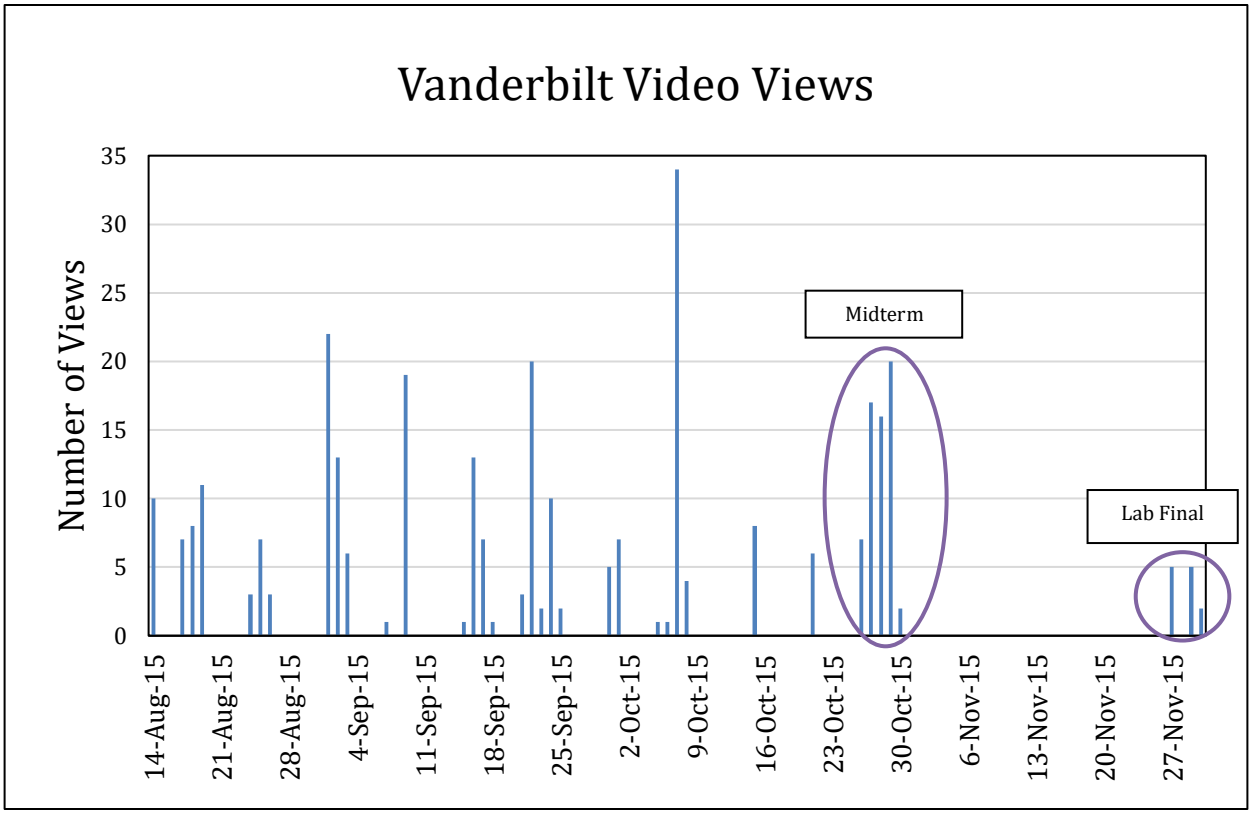

Figure 7: *Timing of video usage by Vanderbilt students. Results show they watched the videos weekly and then increased views around the time of larger assignments, like the midterm and final.*

Comparing Effectiveness at Different Institutions

We used analytical data from YouTube to examine the different ways in which students at Vanderbilt University and Illinois State University use the video resources. These data show that, on average, Illinois State students watched more (~90%) of each video than Vanderbilt University Students (~60%; see Figure 8a). Vanderbilt students tended to watch the video right before lab, while the Illinois State students viewed the videos more in the days closest to the following week's lab (Figure 8b).

Vanderbilt students were required to watch the videos to complete the quiz questions before lab. It is possible that they only watched enough of the video to answer the questions on the quiz and then revisited the videos only if necessary when completing the homework assignment after lab. Since the videos were presented as an optional resource for Illinois State students, the students

were more intrinsically motivated, watching the videos more fully and on their own time. The differences in viewing style may result from differences in learning cultures or (more likely) from differences in the way the videos were assigned and made available. Both instructors found that the students reacted positively to the videos despite the different approaches.

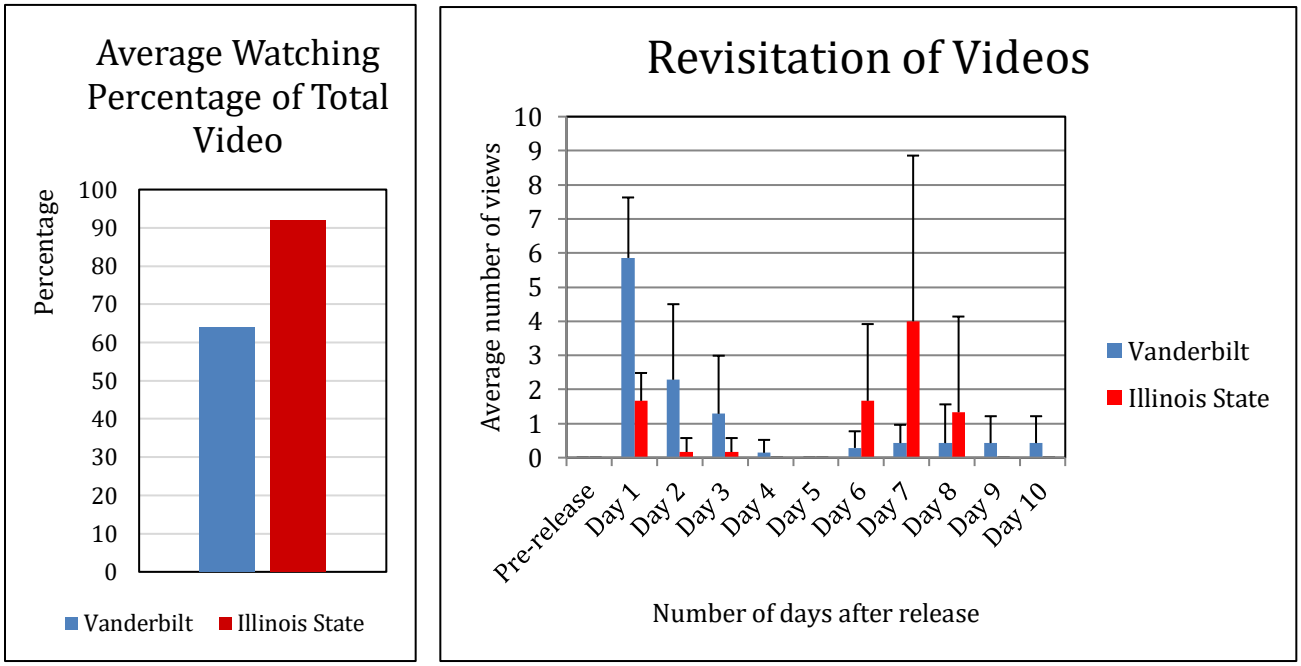

Figure 8: *Comparison of viewing styles of Vanderbilt University and Illinois State University Students show differences in average amount of video streamed (A) and re-visitation of videos (B). Note that in (B), we present the average results for all videos normalized to the release date. Although Illinois State students watch more (on average) of each video (A), we find that Vanderbilt students watch the video before coming into lab and Illinois State students tend to watch it in the days after lab (B).*

Broader Implications

After the first semester of implementation (Fall 2015), the videos and quizzes were made available on the Earth Optics YouTube channel and on earthopticsmineralogy.com, a WordPress website. Since the videos have been made public, individuals from at least 34 countries with a total of 1629 views (as of April 2016) have been streaming the videos, commenting, and subscribing to the channel with 38% of the viewers streaming from the United States and 62% of the viewers streaming internationally. This makes it apparent that there is a wide audience across

the globe that is actively searching for ways to teach and learn optical microscopy skills and find videos a potential resource.

Conclusions

- We present these videos as a helpful and useful tool for students and teachers of optical microscopy.
- We find that these videos enable students to be more efficient in lab and enhance their confidence and engagement.
- The BEST test shows that there is an 87% probability that the lab final scores in 2015 (videos implemented) were higher than the scores in 2014 (videos not implemented). We found no difference in homework scores between the two years. It is difficult to report confidence given the small student populations.
- We find that between the two years, more thin sections were assigned to the 2015 study year during lab time because they were spending less time in lab on the same activities.
- YouTube analytics show that styles of watching the videos vary between institutions. Vanderbilt students watch less of each video and Illinois State students revisit the videos more frequently.
- Upon making these videos open for public search, they have been viewed in 34 countries with new subscribers weekly as of April, 2016.
- Videos and quizzes can be found on earthopticsmineralogy.com

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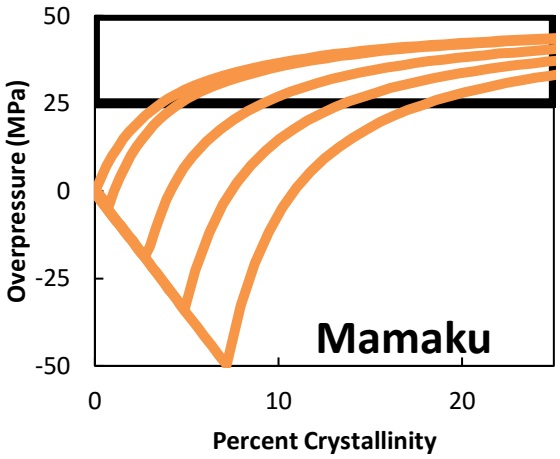
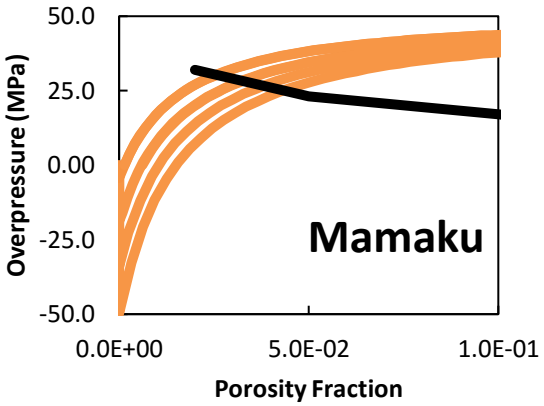
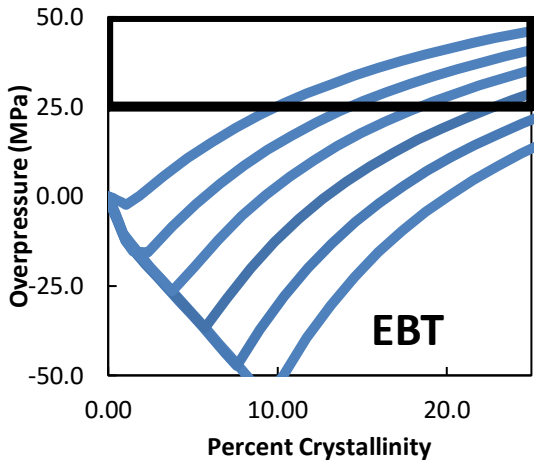
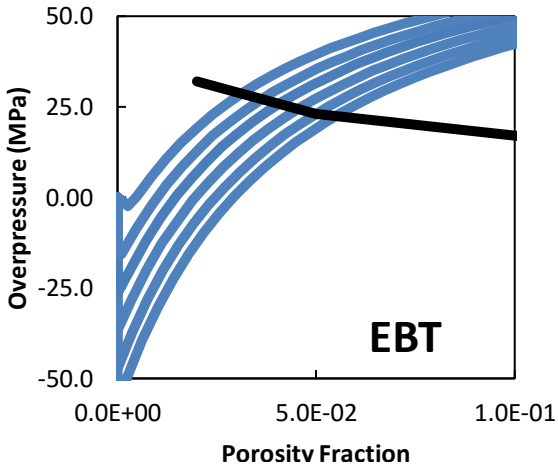
Appendix

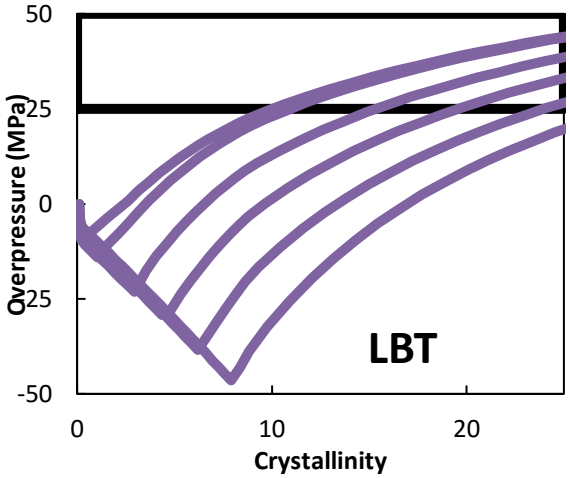
A. Models for all Undersaturated Scenarios

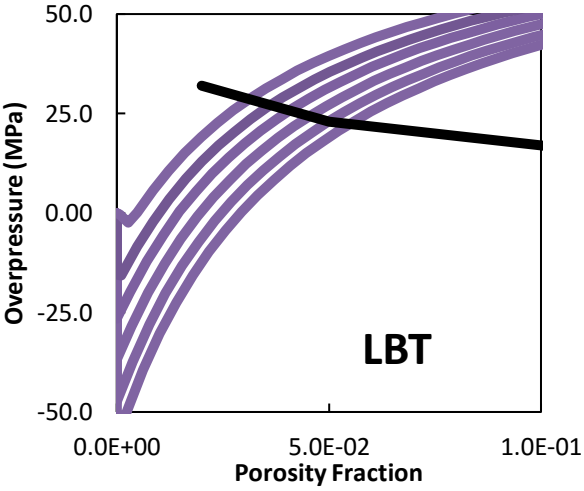


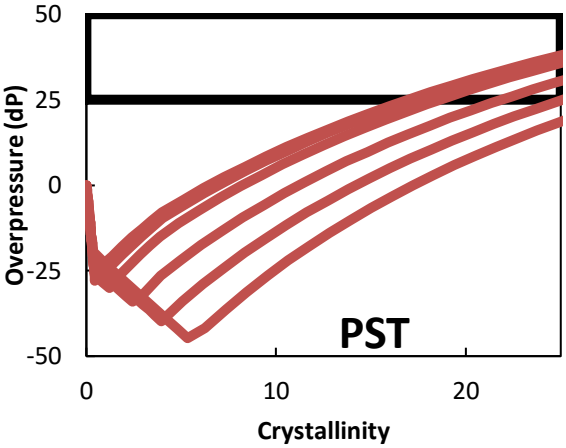








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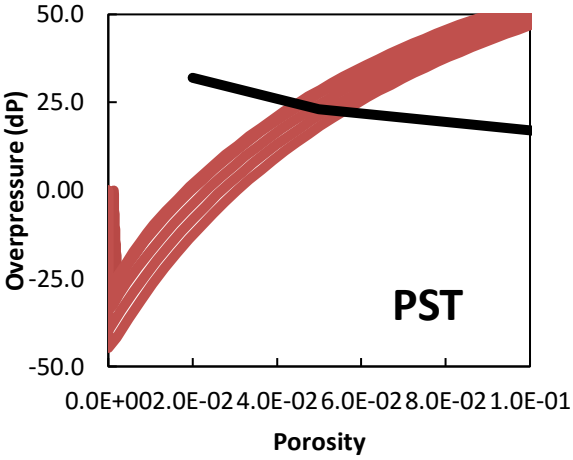
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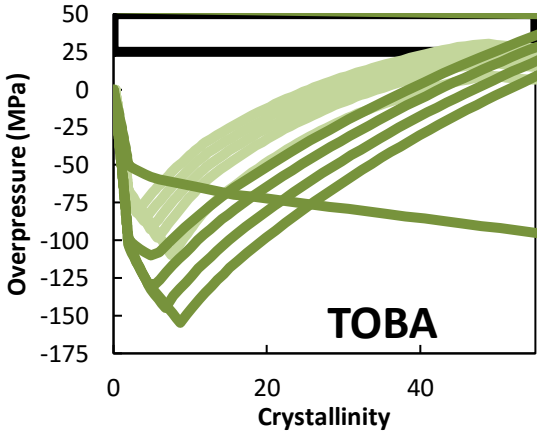
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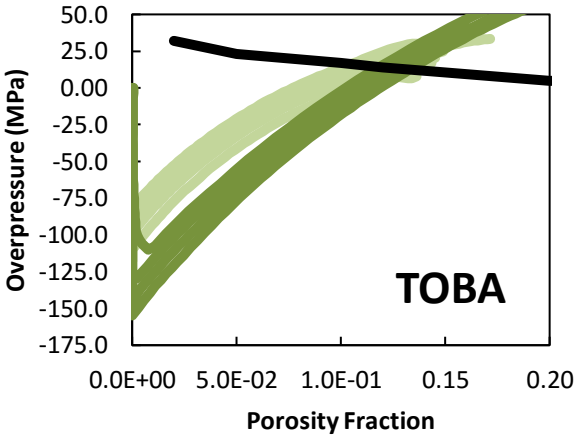
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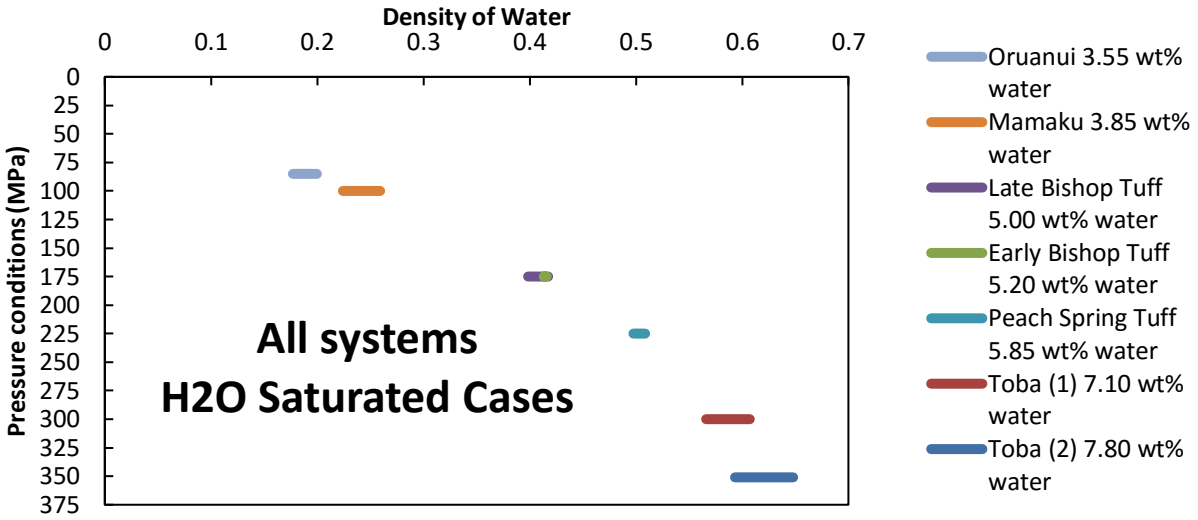
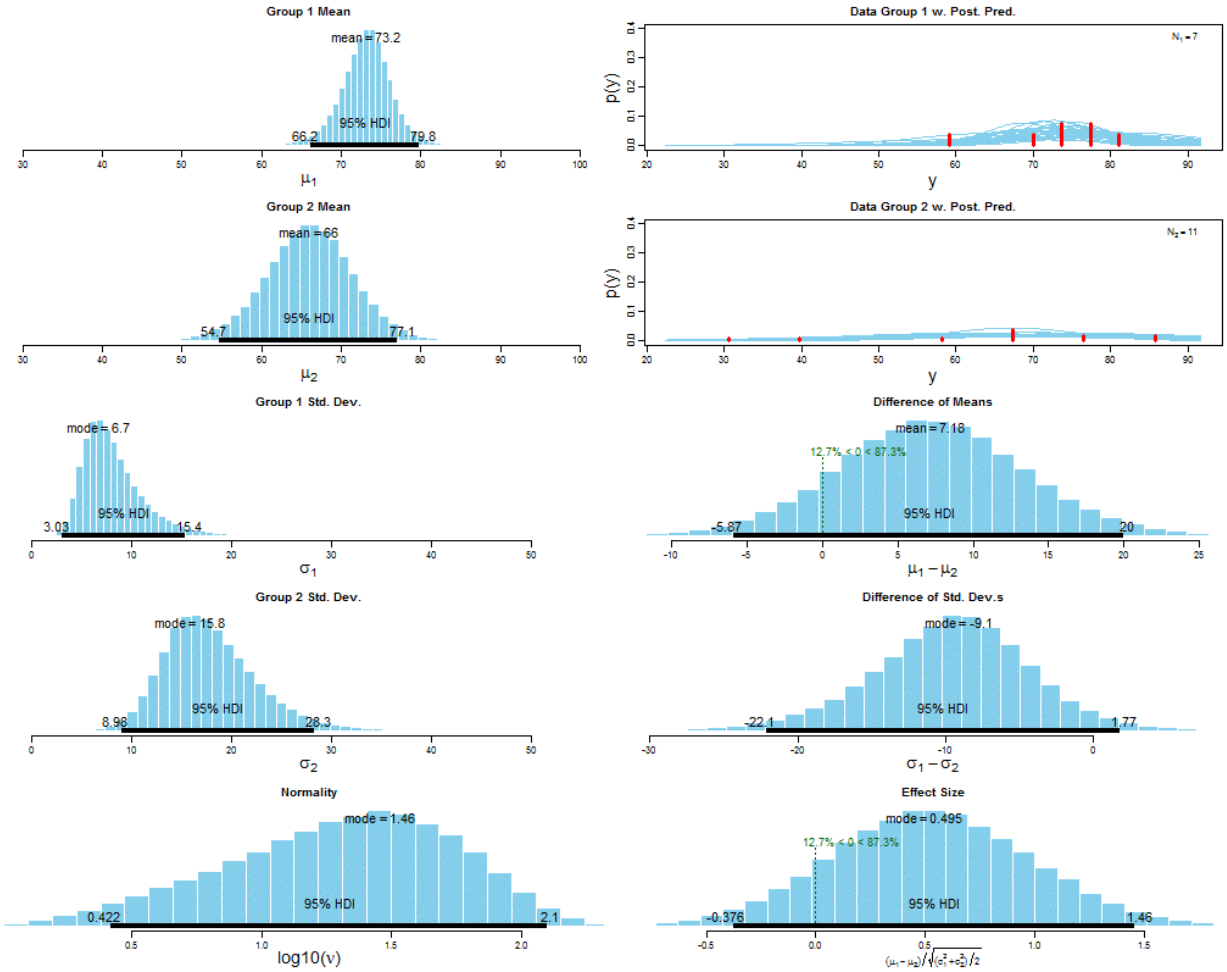
B. Density of Water with Depth



C. BEST Test Results



Caption: *Results from the BEST test (Bayesian Estimation Supercedes the T-test) after Kruschke, 2012. Group 1 represents the 2015 year that had the videos, and group 2 represents the 2014 year that did not have the videos. Note that the 2015 group 1 results show a higher mean grade and a smaller standard deviation.*

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ΔH (kJ)	3.55 BF *crystal content*	3.45 BF *crystal content*	3.35 BF *crystal content*	3.25 BF *crystal content*	3.15 BF *crystal content*	3.05 BF *crystal content*	3.55 BF *DP*	3.45 BF *DP*	3.35 BF *DP*	3.25 BF *DP*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.19	0.07	0.08	0.09	0.11	0.15	2.41	-1.16	-1.16	-1.19
1.0	0.46	0.28	0.28	0.30	0.32	0.36	5.96	-2.54	-2.55	-2.58
1.5	0.73	0.48	0.49	0.50	0.53	0.57	8.99	-3.92	-3.95	-3.99
2.0	0.99	0.69	0.69	0.71	0.74	0.78	11.6	-5.31	-5.34	-5.39
2.5	1.26	0.89	0.90	0.92	0.95	0.99	13.9	-6.70	-6.74	-6.80
3.0	1.53	1.09	1.10	1.12	1.15	1.19	15.9	-8.10	-8.15	-8.21
3.5	1.80	1.30	1.31	1.33	1.36	1.40	17.7	-9.50	-9.56	-9.63
4.0	2.06	1.50	1.51	1.53	1.57	1.61	19.3	-10.9	-11.0	-11.1
4.5	2.33	1.70	1.72	1.74	1.77	1.82	20.7	-12.3	-12.4	-12.5
5.0	2.60	1.91	1.92	1.94	1.98	2.02	22.0	-13.7	-13.8	-13.9
5.5	2.86	2.11	2.12	2.15	2.18	2.23	23.2	-15.1	-15.2	-15.3
6.0	3.13	2.37	2.33	2.35	2.39	2.44	24.2	-9.96	-16.7	-16.8
6.5	3.39	2.64	2.53	2.56	2.59	2.64	25.2	-5.07	-18.1	-18.2
7.0	3.66	2.90	2.73	2.76	2.80	2.85	26.1	-0.96	-19.5	-19.7
7.5	3.93	3.17	2.93	2.96	3.00	3.06	26.9	2.56	-21.0	-21.1
8.0	4.19	3.44	3.14	3.17	3.21	3.26	27.7	5.60	-22.4	-22.6
8.5	4.46	3.71	3.34	3.37	3.41	3.47	28.3	8.25	-23.9	-24.0
9.0	4.73	3.97	3.54	3.57	3.62	3.67	29.0	10.6	-25.3	-25.5
9.5	5.01	4.24	3.74	3.77	3.82	3.87	29.6	12.6	-26.8	-26.9
10.0	5.29	4.50	3.94	3.98	4.02	4.08	30.2	14.5	-28.2	-28.4
10.5	5.57	4.78	4.14	4.18	4.22	4.28	30.8	16.2	-29.7	-29.9
11.0	5.85	5.06	4.34	4.38	4.43	4.49	31.3	17.7	-31.1	-31.3
11.5	6.13	5.34	4.54	4.58	4.63	4.69	31.8	19.2	-32.6	-32.8
12.0	6.40	5.62	4.82	4.78	4.83	4.89	32.2	20.4	-23.9	-34.3
12.5	6.68	5.90	5.11	4.98	5.03	5.09	32.6	21.6	-17.7	-35.8
13.0	6.96	6.18	5.39	5.18	5.23	5.29	33.0	22.7	-12.4	-37.3
13.5	7.23	6.45	5.67	5.40	5.43	5.50	33.4	23.6	-7.97	-38.8
14.0	7.51	6.73	5.95	5.61	5.63	5.70	33.7	24.5	-4.14	-40.2
14.5	7.78	7.01	6.23	5.82	5.85	5.90	34.0	25.4	-0.80	-41.7
15.0	8.06	7.29	6.51	6.03	6.06	6.10	34.3	26.1	2.12	-43.2
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16.0	8.60	7.84	7.06	6.45	6.48	6.52	34.9	27.5	6.98	-46.2
16.5	8.88	8.11	7.34	6.66	6.69	6.73	35.1	28.1	9.03	-47.7
17.0	9.15	8.39	7.62	6.86	6.90	6.94	35.3	28.6	10.9	-49.2
17.5	9.42	8.66	7.89	7.12	7.11	7.15	35.5	29.1	12.5	-42.8
18.0	9.69	8.93	8.17	7.40	7.32	7.36	35.7	29.6	14.0	-34.6
18.5	9.96	9.20	8.44	7.68	7.52	7.57	35.9	30.1	15.4	-27.8
19.0	10.2	9.48	8.72	7.95	7.73	7.78	36.1	30.5	16.7	-22.0
19.5	10.7	9.75	8.99	8.23	7.94	7.99	36.5	30.9	17.8	-17.1
20.0	11.5	10.0	9.26	8.50	8.15	8.20	37.0	31.3	18.9	-12.8
20.5	12.3	10.3	9.54	8.78	8.35	8.41	37.5	31.7	19.8	-9.13
21.0	13.1	10.9	9.81	9.05	8.56	8.61	37.9	32.4	20.7	-5.87
21.5	13.8	11.7	10.1	9.33	8.76	8.82	38.3	33.3	21.6	-2.98
22.0	14.6	12.4	10.4	9.60	8.97	9.02	38.7	34.0	22.4	-0.40
22.5	15.4	13.2	11.0	9.87	9.17	9.23	39.0	34.7	24.1	1.91
23.0	16.2	14.0	11.8	10.2	9.38	9.43	39.3	35.4	25.8	4.08
23.5	16.9	14.8	12.6	10.5	9.67	9.64	39.6	35.9	27.3	6.10
24.0	17.7	15.6	13.4	11.2	9.94	9.84	39.8	36.4	28.6	10.4
24.5	18.5	16.3	14.2	12.0	10.2	10.0	40.1	36.9	29.7	13.9
25.0	19.2	17.1	15.0	12.8	10.6	10.3	40.3	37.3	30.7	16.8
25.5	20.0	17.9	15.7	13.6	11.4	10.5	40.5	37.7	31.5	19.3
26.0	20.8	18.6	16.5	14.4	12.2	10.9	40.7	38.0	32.3	21.4
26.5	21.5	19.4	17.3	15.1	13.0	11.3	40.8	38.4	33.0	23.1
27.0	22.3	20.2	18.0	15.9	13.8	11.7	41.0	38.6	33.7	24.7
27.5	23.0	20.9	18.8	16.7	14.5	12.4	41.2	38.9	34.2	26.0
28.0	23.8	21.7	19.6	17.5	15.3	13.2	41.3	39.2	34.8	27.2
28.5	24.5	22.4	20.3	18.2	16.1	14.0	41.4	39.4	35.2	28.3
29.0	25.3	23.2	21.1	19.0	16.9	14.8	41.5	39.6	35.7	29.2

ORUANUI BT FREE ISENTHALPIC DATA

ΔH (kJ)	3.55 BF crystal content	3.45 BF crystal content	3.35 BF crystal content	3.25 BF crystal content	3.15 BF crystal content	3.05 BF crystal content	3.55 BF DP	3.45 BF DP	3.35 BF DP	3.25 BF DP
29.5	26.0	24.0	21.9	19.8	17.7	15.5	41.7	39.8	36.1	30.1
30.0	26.8	24.7	22.6	20.5	18.4	16.3	41.8	40.0	36.4	30.8
30.5	27.5	25.5	23.4	21.3	19.2	17.1	41.9	40.2	36.8	31.5
31.0	28.3	26.2	24.1	22.1	20.0	17.9	41.9	40.3	37.1	32.2
31.5	29.0	27.0	24.9	22.8	20.7	18.6	42.0	40.5	37.4	32.7
32.0	29.7	27.7	25.6	23.6	21.5	19.4	42.1	40.6	37.7	33.3
32.5	30.5	28.4	26.4	24.3	22.3	20.2	42.2	40.8	37.9	33.8
33.0	31.2	29.2	27.1	25.1	23.0	20.9	42.2	40.9	38.2	34.2
33.5	31.9	29.9	27.9	25.8	23.8	21.7	42.3	41.0	38.4	34.6
34.0	32.7	30.6	28.6	26.6	24.5	22.5	42.4	41.1	38.6	35.0
34.5	33.4	31.4	29.4	27.3	25.3	23.2	42.4	41.2	38.8	35.4
35.0	34.1	32.1	30.1	28.1	26.0	24.0	42.5	41.3	39.0	35.7
35.5	34.8	32.8	30.8	28.8	26.8	24.7	42.5	41.4	39.1	36.0
36.0	35.5	33.6	31.6	29.6	27.5	25.5	42.6	41.5	39.3	36.3
36.5	36.3	34.3	32.3	30.3	28.3	26.3	42.6	41.5	39.4	36.5
37.0	37.0	35.0	33.0	31.0	29.0	27.0	42.6	41.6	39.6	36.8
37.5	37.7	35.7	33.8	31.8	29.8	27.8	42.7	41.7	39.7	37.0
38.0	38.4	36.5	34.5	32.5	30.5	28.5	42.7	41.7	39.8	37.3
38.5	39.1	37.2	35.2	33.2	31.2	29.2	42.7	41.8	39.9	37.5
39.0	39.8	37.9	35.9	34.0	32.0	30.0	42.8	41.8	40.0	37.6
39.5	40.5	38.6	36.6	34.7	32.7	30.7	42.8	41.9	40.1	37.8
40.0	41.2	39.3	37.4	35.4	33.4	31.5	42.8	41.9	40.2	38.0
40.5	41.9	40.0	38.1	36.1	34.2	32.2	42.8	42.0	40.3	38.2
41.0	42.6	40.7	38.8	36.9	34.9	32.9	42.8	42.0	40.4	38.3
41.5	43.3	41.4	39.5	37.6	35.6	33.7	42.8	42.0	40.5	38.4
42.0	44.0	42.1	40.2	38.3	36.4	34.4	42.9	42.1	40.5	38.6
42.5	44.7	42.8	40.9	39.0	37.1	35.1	42.9	42.1	40.6	38.7
43.0	45.4	43.5	41.6	39.7	37.8	35.9	42.9	42.1	40.7	38.8
43.5	46.1	44.2	42.3	40.4	38.5	36.6	42.9	42.2	40.7	38.9
44.0	46.8	44.9	43.0	41.1	39.2	37.3	42.9	42.2	40.8	39.0
44.5	47.5	45.6	43.7	41.8	39.9	38.0	42.9	42.2	40.8	39.1
45.0	48.2	46.3	44.5	42.6	40.7	38.7	42.9	42.2	40.9	39.2
45.5	48.9	47.0	45.2	43.3	41.4	39.5	42.9	42.2	40.9	39.3
46.0	49.6	47.7	45.9	44.0	42.1	40.2	42.9	42.2	41.0	39.4
46.5	50.3	48.4	46.6	44.7	42.8	40.9	42.9	42.3	41.0	39.5
47.0	51.0	49.1	47.2	45.4	43.5	41.6	42.9	42.3	41.0	39.5
47.5	51.7	49.8	47.9	46.1	44.2	42.3	42.9	42.3	41.1	39.6
48.0	52.4	50.5	48.6	46.8	44.9	43.0	42.8	42.3	41.1	39.7
48.5	53.1	51.2	49.3	47.5	45.6	43.7	42.8	42.3	41.1	39.7
49.0	53.8	51.9	50.0	48.2	46.3	44.4	42.8	42.3	41.2	39.8
49.5	54.5	52.6	50.7	48.9	47.0	45.1	42.8	42.3	41.2	39.8
50.0	55.2	53.3	51.4	49.6	47.7	45.8	42.8	42.3	41.2	39.9
50.5	55.9	54.0	52.1	50.3	48.4	46.5	42.8	42.3	41.2	39.9
51.0	56.6	54.7	52.8	51.0	49.1	47.2	42.8	42.3	41.2	40.0
51.5	57.3	55.4	53.5	51.7	49.8	47.9	42.8	42.3	41.2	40.0
52.0	58.1	56.1	54.2	52.4	50.5	48.7	42.7	42.3	41.3	40.0
52.5	58.9	56.9	55.0	53.1	51.2	49.4	42.7	42.2	41.3	40.1
53.0	60.1	57.6	55.7	53.8	51.9	50.1	42.8	42.2	41.3	40.1
53.5	61.2	58.3	56.4	54.5	52.6	50.8	42.8	42.2	41.3	40.1
54.0	62.3	59.3	57.1	55.2	53.3	51.5	42.9	42.3	41.3	40.2
54.5	63.5	60.4	57.8	55.9	54.0	52.2	42.9	42.3	41.3	40.2
55.0	64.6	61.6	58.5	56.6	54.7	52.9	42.9	42.4	41.3	40.2
55.5	65.7	62.7	59.6	57.3	55.4	53.6	43.0	42.4	41.4	40.2
56.0	66.8	63.8	60.8	58.1	56.2	54.3	43.0	42.4	41.4	40.3
56.5	67.9	64.9	61.9	58.8	56.9	55.0	43.0	42.5	41.5	40.3
57.0	69.0	66.1	63.0	60.0	57.6	55.7	43.0	42.5	41.5	40.4
57.5	70.1	67.2	64.2	61.1	58.3	56.4	43.1	42.6	41.6	40.5
58.0	71.2	68.3	65.3	62.3	59.2	57.1	43.1	42.6	41.7	40.5
58.5	72.2	69.4	66.4	63.4	60.4	57.9	43.1	42.6	41.7	40.6

ISENTHALPIC MASTER SHEET 9

ORUANUI BT FREE ISENTHALPIC DATA

ΔH (kJ)	3.55 BF *crystal content*	3.45 BF *crystal content*	3.35 BF *crystal content*	3.25 BF *crystal content*	3.15 BF *crystal content*	3.05 BF *crystal content*	3.55 BF *DP*	3.45 BF *DP*	3.35 BF *DP*	3.25 BF *DP*
59.0	73.3	70.4	67.5	64.5	61.5	58.6	43.1	42.6	41.8	40.7
59.5		71.5	68.6	65.7	62.7	59.6		42.7	41.8	40.8
60.0		72.6	69.7	66.8	63.8	60.8		42.7	41.8	40.8
60.5		73.6	70.8	67.9	64.9	61.9		42.7	41.9	40.9
61.0			71.9	69.0	66.1	63.1			41.9	41.0
61.5			72.9	70.1	67.2	64.2			41.9	41.0
62.0				71.2	68.3	65.3				41.1
62.5				72.2	69.4	66.5				41.1
63.0				73.3	70.5	67.6				41.2
63.5					71.5	68.7				
64.0					72.6	69.8				
64.5					73.6	70.8				
65.0						71.9				
65.5						73.0				
66.0						74.0				

ORUANUI BT

	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF
ΔH (kJ)	*DP*	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	466.8	465.2
0.5	-1.23	-1.30	0.22	-0.09	-0.09	-0.09	-0.09	-0.09	467.0	465.1
1.0	-2.64	-2.72	0.58	-0.19	-0.19	-0.19	-0.19	-0.19	467.4	465.0
1.5	-4.05	-4.14	0.94	-0.30	-0.29	-0.29	-0.29	-0.29	467.7	464.9
2.0	-5.46	-5.56	1.30	-0.40	-0.40	-0.40	-0.40	-0.40	468.1	464.8
2.5	-6.88	-6.99	1.66	-0.51	-0.50	-0.50	-0.50	-0.50	468.5	464.7
3.0	-8.30	-8.42	2.02	-0.61	-0.61	-0.60	-0.60	-0.60	468.8	464.6
3.5	-9.73	-9.86	2.38	-0.72	-0.71	-0.70	-0.70	-0.70	469.2	464.5
4.0	-11.2	-11.3	2.73	-0.82	-0.81	-0.81	-0.80	-0.80	469.5	464.4
4.5	-12.6	-12.7	3.09	-0.92	-0.92	-0.91	-0.91	-0.90	469.9	464.2
5.0	-14.0	-14.2	3.44	-1.03	-1.02	-1.01	-1.01	-1.00	470.2	464.1
5.5	-15.5	-15.6	3.79	-1.13	-1.12	-1.12	-1.11	-1.11	470.6	464.0
6.0	-16.9	-17.1	4.14	-0.81	-1.23	-1.22	-1.21	-1.21	470.9	464.4
6.5	-18.4	-18.6	4.49	-0.45	-1.33	-1.32	-1.31	-1.31	471.3	464.7
7.0	-19.8	-20.0	4.84	-0.09	-1.44	-1.43	-1.42	-1.41	471.6	465.1
7.5	-21.3	-21.5	5.18	0.27	-1.54	-1.53	-1.52	-1.51	472.0	465.4
8.0	-22.7	-23.0	5.52	0.62	-1.65	-1.63	-1.62	-1.61	472.3	465.8
8.5	-24.2	-24.4	5.86	0.98	-1.75	-1.74	-1.72	-1.71	472.7	466.2
9.0	-25.7	-25.9	6.21	1.33	-1.85	-1.84	-1.83	-1.82	473.0	466.5
9.5	-27.1	-27.4	6.57	1.68	-1.96	-1.94	-1.93	-1.92	473.4	466.9
10.0	-28.6	-28.9	6.92	2.03	-2.06	-2.05	-2.03	-2.02	473.7	467.2
10.5	-30.1	-30.4	7.28	2.39	-2.17	-2.15	-2.13	-2.12	474.1	467.6
11.0	-31.6	-31.8	7.63	2.75	-2.27	-2.25	-2.24	-2.22	474.4	467.9
11.5	-33.1	-33.3	7.98	3.12	-2.38	-2.36	-2.34	-2.32	474.8	468.3
12.0	-34.6	-34.8	8.33	3.48	-1.95	-2.46	-2.44	-2.43	475.1	468.7
12.5	-36.0	-36.3	8.67	3.84	-1.57	-2.56	-2.54	-2.53	475.5	469.0
13.0	-37.5	-37.9	9.01	4.20	-1.20	-2.67	-2.65	-2.63	475.8	469.4
13.5	-39.0	-39.4	9.35	4.55	-0.83	-2.77	-2.75	-2.73	476.1	469.7
14.0	-40.5	-40.9	9.69	4.91	-0.46	-2.87	-2.85	-2.83	476.5	470.1
14.5	-42.0	-42.4	10.0	5.26	-0.10	-2.98	-2.95	-2.93	476.8	470.4
15.0	-43.5	-43.9	10.4	5.61	0.27	-3.08	-3.06	-3.04	477.1	470.8
15.5	-45.1	-45.4	10.7	5.95	0.63	-3.18	-3.16	-3.14	477.5	471.1
16.0	-46.6	-46.9	11.0	6.30	0.99	-3.28	-3.26	-3.24	477.8	471.5
16.5	-48.1	-48.5	11.3	6.64	1.35	-3.39	-3.36	-3.34	478.1	471.8
17.0	-49.6	-50.0	11.7	6.98	1.70	-3.49	-3.46	-3.44	478.5	472.1
17.5	-51.1	-51.5	12.0	7.31	2.05	-3.26	-3.56	-3.54	478.8	472.5
18.0	-52.6	-53.1	12.3	7.65	2.40	-2.90	-3.67	-3.64	479.1	472.8
18.5	-54.2	-54.6	12.6	7.98	2.75	-2.53	-3.77	-3.74	479.4	473.2
19.0	-55.7	-56.1	12.9	8.31	3.10	-2.17	-3.87	-3.84	479.7	473.5
19.5	-57.2	-57.7	13.5	8.63	3.44	-1.81	-3.97	-3.94	480.3	473.8
20.0	-58.7	-59.2	14.4	8.95	3.78	-1.46	-4.07	-4.04	481.2	474.1
20.5	-60.3	-60.8	15.3	9.30	4.12	-1.10	-4.17	-4.14	482.1	474.5
21.0	-61.8	-62.3	16.2	9.97	4.45	-0.75	-4.28	-4.25	483.0	475.1
21.5	-63.4	-63.9	17.1	10.9	4.79	-0.40	-4.38	-4.35	483.9	476.1
22.0	-64.9	-65.4	18.0	11.8	5.14	-0.06	-4.48	-4.45	484.8	477.0
22.5	-66.5	-67.0	18.9	12.7	5.93	0.29	-4.58	-4.55	485.7	477.9
23.0	-68.0	-68.5	19.8	13.6	6.85	0.64	-4.68	-4.65	486.6	478.8
23.5	-54.0	-70.1	20.7	14.5	7.76	1.01	-4.21	-4.75	487.5	479.7
24.0	-45.2	-71.7	21.6	15.4	8.67	1.91	-3.86	-4.85	488.4	480.6
24.5	-37.4	-73.3	22.4	16.3	9.58	2.83	-3.49	-4.95	489.2	481.5
25.0	-29.2	-74.8	23.3	17.2	10.5	3.75	-3.01	-5.05	490.1	482.4
25.5	-17.0	-76.7	24.2	18.1	11.4	4.67	-2.08	-5.17	491.0	483.2
26.0	-8.13	-79.7	25.0	18.9	12.3	5.58	-1.15	-5.36	491.8	484.1
26.5	-1.44	-82.7	25.9	19.8	13.2	6.49	-0.23	-5.55	492.7	485.0
27.0	3.80	-85.7	26.8	20.7	14.1	7.39	0.69	-5.74	493.5	485.9
27.5	8.01	-63.3	27.6	21.6	14.9	8.29	1.60	-5.12	494.4	486.7
28.0	11.5	-41.8	28.4	22.4	15.8	9.18	2.51	-4.19	495.2	487.6
28.5	14.3	-27.4	29.3	23.3	16.7	10.1	3.42	-3.27	496.1	488.4
29.0	16.8	-17.0	30.1	24.1	17.6	11.0	4.32	-2.35	496.9	489.3

ORUANUI BT

	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF
ΔH (kJ)	*DP*	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*
29.5	18.9	-9.11	30.9	25.0	18.4	11.8	5.22	-1.44	497.7	490.1
30.0	20.7	-3.00	31.8	25.8	19.3	12.7	6.11	-0.53	498.6	491.0
30.5	22.3	1.91	32.6	26.7	20.1	13.6	7.00	0.37	499.4	491.8
31.0	23.7	5.93	33.4	27.5	21.0	14.5	7.89	1.28	500.2	492.7
31.5	24.9	9.28	34.2	28.3	21.8	15.3	8.77	2.17	501.0	493.5
32.0	26.1	12.1	35.0	29.1	22.7	16.2	9.64	3.07	501.8	494.3
32.5	27.1	14.5	35.8	30.0	23.5	17.0	10.5	3.95	502.6	495.1
33.0	28.0	16.6	36.6	30.8	24.3	17.9	11.4	4.84	503.4	495.9
33.5	28.8	18.5	37.4	31.6	25.2	18.7	12.2	5.72	504.2	496.7
34.0	29.5	20.1	38.2	32.4	26.0	19.6	13.1	6.59	505.0	497.5
34.5	30.2	21.5	38.9	33.2	26.8	20.4	14.0	7.46	505.7	498.3
35.0	30.8	22.8	39.7	34.0	27.6	21.2	14.8	8.33	506.5	499.1
35.5	31.4	24.0	40.5	34.7	28.4	22.1	15.6	9.19	507.3	499.9
36.0	31.9	25.0	41.2	35.5	29.2	22.9	16.5	10.0	508.0	500.7
36.5	32.4	26.0	42.0	36.3	30.0	23.7	17.3	10.9	508.8	501.5
37.0	32.9	26.8	42.7	37.1	30.8	24.5	18.1	11.7	509.5	502.2
37.5	33.3	27.6	43.5	37.8	31.6	25.3	19.0	12.6	510.3	503.0
38.0	33.7	28.3	44.2	38.6	32.4	26.1	19.8	13.4	511.0	503.8
38.5	34.0	29.0	44.9	39.3	33.1	26.9	20.6	14.3	511.7	504.5
39.0	34.4	29.6	45.7	40.1	33.9	27.7	21.4	15.1	512.5	505.3
39.5	34.7	30.2	46.4	40.8	34.7	28.5	22.2	15.9	513.2	506.0
40.0	35.0	30.7	47.1	41.6	35.4	29.2	23.0	16.7	513.9	506.7
40.5	35.3	31.2	47.8	42.3	36.2	30.0	23.8	17.5	514.6	507.5
41.0	35.5	31.6	48.5	43.0	36.9	30.8	24.6	18.3	515.3	508.2
41.5	35.8	32.0	49.2	43.7	37.7	31.5	25.4	19.1	516.0	508.9
42.0	36.0	32.4	49.9	44.4	38.4	32.3	26.1	19.9	516.7	509.6
42.5	36.2	32.8	50.6	45.1	39.1	33.0	26.9	20.7	517.4	510.3
43.0	36.4	33.1	51.2	45.8	39.8	33.8	27.7	21.5	518.0	511.0
43.5	36.6	33.4	51.9	46.5	40.5	34.5	28.4	22.3	518.7	511.7
44.0	36.8	33.7	52.6	47.2	41.3	35.2	29.2	23.0	519.4	512.4
44.5	36.9	34.0	53.2	47.9	42.0	36.0	29.9	23.8	520.0	513.1
45.0	37.1	34.3	53.9	48.6	42.7	36.7	30.7	24.6	520.7	513.7
45.5	37.3	34.5	54.5	49.2	43.3	37.4	31.4	25.3	521.3	514.4
46.0	37.4	34.8	55.2	49.9	44.0	38.1	32.1	26.1	522.0	515.1
46.5	37.5	35.0	55.8	50.6	44.7	38.8	32.8	26.8	522.6	515.7
47.0	37.7	35.2	56.5	51.2	45.4	39.5	33.6	27.6	523.3	516.4
47.5	37.8	35.4	57.1	51.9	46.1	40.2	34.3	28.3	523.9	517.0
48.0	37.9	35.6	57.7	52.5	46.7	40.9	35.0	29.0	524.5	517.7
48.5	38.0	35.8	58.4	53.2	47.4	41.6	35.7	29.7	525.2	518.3
49.0	38.1	35.9	59.0	53.8	48.0	42.2	36.4	30.5	525.8	519.0
49.5	38.2	36.1	59.6	54.4	48.7	42.9	37.1	31.2	526.4	519.6
50.0	38.3	36.2	60.2	55.1	49.3	43.6	37.8	31.9	527.0	520.2
50.5	38.4	36.4	60.8	55.7	50.0	44.2	38.4	32.6	527.6	520.9
51.0	38.4	36.5	61.4	56.3	50.6	44.9	39.1	33.3	528.2	521.5
51.5	38.5	36.6	62.1	56.9	51.3	45.5	39.8	34.0	528.8	522.1
52.0	38.6	36.8	62.7	57.6	51.9	46.2	40.4	34.6	529.5	522.7
52.5	38.6	36.9	63.4	58.2	52.5	46.8	41.1	35.3	530.2	523.3
53.0	38.7	37.0	64.5	58.8	53.1	47.5	41.8	36.0	531.2	524.0
53.5	38.8	37.1	65.5	59.4	53.8	48.1	42.4	36.7	532.3	524.6
54.0	38.8	37.2	66.5	60.3	54.4	48.7	43.1	37.3	533.3	525.4
54.5	38.9	37.3	67.6	61.3	55.0	49.4	43.7	38.0	534.4	526.5
55.0	38.9	37.3	68.6	62.4	55.6	50.0	44.4	38.7	535.4	527.5
55.5	39.0	37.4	69.6	63.4	56.6	50.6	45.0	39.3	536.4	528.6
56.0	39.0	37.5	70.6	64.4	57.7	51.3	45.6	40.0	537.4	529.6
56.5	39.1	37.6	71.6	65.4	58.7	51.9	46.3	40.6	538.3	530.6
57.0	39.1	37.7	72.5	66.4	59.7	53.0	46.9	41.3	539.3	531.6
57.5	39.1	37.7	73.5	67.4	60.8	54.0	47.5	41.9	540.3	532.6
58.0	39.2	37.8	74.4	68.4	61.8	55.1	48.3	42.5	541.2	533.6
58.5	39.3	37.8	75.3	69.4	62.8	56.1	49.4	43.2	542.1	534.5

ISENTHALPIC MASTER SHEET 9

ORUANUI BT

	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF
ΔH (kJ)	*DP*	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*
59.0	39.4	37.9	76.2	70.3	63.8	57.1	50.4	43.8	543.0	535.5
59.5	39.5	38.0		71.3	64.7	58.1	51.5	44.7		536.4
60.0	39.6	38.2		72.2	65.7	59.1	52.5	45.8		537.3
60.5	39.7	38.3		73.1	66.7	60.1	53.5	46.8		538.2
61.0	39.8	38.4			67.6	61.1	54.5	47.9		
61.5	39.9	38.6			68.5	62.1	55.5	48.9		
62.0	40.0	38.7				63.0	56.5	49.9		
62.5	40.1	38.8				63.9	57.5	50.9		
63.0	40.1	38.9				64.9	58.5	51.9		
63.5	40.2	39.0					59.4	52.9		
64.0	40.3	39.1					60.3	53.9		
64.5	40.3	39.2					61.2	54.9		
65.0		39.3						55.8		
65.5		39.3						56.7		
66.0		39.4						57.6		

ORUANUI BT

	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF
ΔH (kJ)	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
0.0	464.1	463.0	461.8	460.7	1.8E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05
0.5	464.0	462.9	461.8	460.6	1.9E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05
1.0	463.9	462.8	461.7	460.5	2.1E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05
1.5	463.8	462.7	461.6	460.4	2.2E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
2.0	463.7	462.6	461.5	460.3	2.4E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
2.5	463.6	462.5	461.3	460.2	2.6E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
3.0	463.5	462.4	461.2	460.1	2.7E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
3.5	463.4	462.3	461.1	460.0	2.9E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
4.0	463.3	462.2	461.0	459.9	3.0E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
4.5	463.2	462.1	460.9	459.8	3.2E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
5.0	463.1	461.9	460.8	459.7	3.3E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
5.5	462.9	461.8	460.7	459.6	3.5E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
6.0	462.8	461.7	460.6	459.5	3.6E-05	1.8E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
6.5	462.7	461.6	460.5	459.4	3.8E-05	1.9E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
7.0	462.6	461.5	460.4	459.3	3.9E-05	2.1E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
7.5	462.5	461.4	460.3	459.2	4.1E-05	2.2E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
8.0	462.4	461.3	460.2	459.1	4.2E-05	2.4E-05	1.6E-05	1.6E-05	1.6E-05	1.5E-05
8.5	462.3	461.2	460.1	459.0	4.4E-05	2.5E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
9.0	462.2	461.1	460.0	458.9	4.5E-05	2.7E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
9.5	462.1	461.0	459.9	458.8	4.7E-05	2.8E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
10.0	462.0	460.9	459.8	458.7	4.8E-05	3.0E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
10.5	461.9	460.8	459.7	458.6	5.0E-05	3.2E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
11.0	461.8	460.7	459.6	458.5	5.1E-05	3.3E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
11.5	461.7	460.6	459.5	458.4	5.3E-05	3.5E-05	1.6E-05	1.6E-05	1.5E-05	1.5E-05
12.0	462.1	460.5	459.4	458.3	5.4E-05	3.6E-05	1.8E-05	1.6E-05	1.5E-05	1.5E-05
12.5	462.5	460.4	459.3	458.2	5.6E-05	3.8E-05	1.9E-05	1.6E-05	1.5E-05	1.5E-05
13.0	462.9	460.3	459.2	458.1	5.7E-05	3.9E-05	2.1E-05	1.6E-05	1.5E-05	1.5E-05
13.5	463.2	460.2	459.1	458.0	5.9E-05	4.1E-05	2.2E-05	1.6E-05	1.5E-05	1.5E-05
14.0	463.6	460.1	459.0	457.9	6.0E-05	4.3E-05	2.4E-05	1.6E-05	1.5E-05	1.5E-05
14.5	464.0	460.0	458.9	457.8	6.2E-05	4.4E-05	2.6E-05	1.6E-05	1.5E-05	1.5E-05
15.0	464.3	459.9	458.8	457.7	6.3E-05	4.6E-05	2.7E-05	1.5E-05	1.5E-05	1.5E-05
15.5	464.7	459.8	458.7	457.6	6.5E-05	4.7E-05	2.9E-05	1.5E-05	1.5E-05	1.5E-05
16.0	465.1	459.7	458.6	457.5	6.6E-05	4.9E-05	3.0E-05	1.5E-05	1.5E-05	1.5E-05
16.5	465.4	459.6	458.5	457.4	6.8E-05	5.0E-05	3.2E-05	1.5E-05	1.5E-05	1.5E-05
17.0	465.8	459.5	458.4	457.3	6.9E-05	5.2E-05	3.4E-05	1.5E-05	1.5E-05	1.5E-05
17.5	466.1	459.7	458.3	457.2	7.0E-05	5.3E-05	3.5E-05	1.7E-05	1.5E-05	1.5E-05
18.0	466.5	460.1	458.2	457.1	7.2E-05	5.5E-05	3.7E-05	1.8E-05	1.5E-05	1.5E-05
18.5	466.8	460.4	458.1	457.0	7.3E-05	5.6E-05	3.8E-05	2.0E-05	1.5E-05	1.5E-05
19.0	467.2	460.8	458.0	456.9	7.5E-05	5.7E-05	4.0E-05	2.1E-05	1.5E-05	1.5E-05
19.5	467.5	461.2	457.9	456.8	7.7E-05	5.9E-05	4.1E-05	2.3E-05	1.5E-05	1.5E-05
20.0	467.9	461.5	457.8	456.7	8.1E-05	6.0E-05	4.3E-05	2.5E-05	1.5E-05	1.5E-05
20.5	468.2	461.9	457.7	456.6	8.5E-05	6.2E-05	4.4E-05	2.6E-05	1.5E-05	1.5E-05
21.0	468.5	462.2	457.6	456.5	8.9E-05	6.5E-05	4.6E-05	2.8E-05	1.5E-05	1.5E-05
21.5	468.9	462.6	457.5	456.4	9.2E-05	6.9E-05	4.7E-05	2.9E-05	1.5E-05	1.5E-05
22.0	469.2	462.9	457.4	456.3	9.6E-05	7.3E-05	4.9E-05	3.1E-05	1.5E-05	1.5E-05
22.5	470.0	463.2	457.3	456.2	1.0E-04	7.7E-05	5.2E-05	3.2E-05	1.5E-05	1.5E-05
23.0	470.9	463.6	457.2	456.1	1.0E-04	8.0E-05	5.6E-05	3.4E-05	1.5E-05	1.5E-05
23.5	471.8	464.0	457.6	456.0	1.1E-04	8.4E-05	6.0E-05	3.6E-05	1.7E-05	1.5E-05
24.0	472.7	464.9	458.0	455.9	1.1E-04	8.8E-05	6.4E-05	4.0E-05	1.9E-05	1.5E-05
24.5	473.7	465.8	458.4	455.8	1.1E-04	9.2E-05	6.8E-05	4.4E-05	2.0E-05	1.5E-05
25.0	474.6	466.7	458.8	455.7	1.2E-04	9.6E-05	7.2E-05	4.8E-05	2.2E-05	1.5E-05
25.5	475.5	467.6	459.8	455.6	1.2E-04	9.9E-05	7.6E-05	5.2E-05	2.7E-05	1.5E-05
26.0	476.4	468.5	460.7	455.4	1.3E-04	1.0E-04	8.0E-05	5.6E-05	3.1E-05	1.5E-05
26.5	477.2	469.5	461.6	455.2	1.3E-04	1.1E-04	8.4E-05	6.0E-05	3.5E-05	1.5E-05
27.0	478.1	470.4	462.5	455.0	1.3E-04	1.1E-04	8.7E-05	6.4E-05	3.9E-05	1.5E-05
27.5	479.0	471.3	463.4	455.6	1.4E-04	1.1E-04	9.1E-05	6.8E-05	4.3E-05	1.8E-05
28.0	479.9	472.1	464.4	456.5	1.4E-04	1.2E-04	9.5E-05	7.1E-05	4.7E-05	2.2E-05
28.5	480.8	473.0	465.3	457.4	1.4E-04	1.2E-04	9.9E-05	7.5E-05	5.1E-05	2.6E-05
29.0	481.6	473.9	466.2	458.4	1.5E-04	1.2E-04	1.0E-04	7.9E-05	5.5E-05	3.0E-05

ORUANUI BT

	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF
ΔH (kJ)	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
29.5	482.5	474.8	467.1	459.3	1.5E-04	1.3E-04	1.1E-04	8.3E-05	5.9E-05	3.4E-05
30.0	483.4	475.7	468.0	460.2	1.5E-04	1.3E-04	1.1E-04	8.7E-05	6.3E-05	3.9E-05
30.5	484.2	476.6	468.8	461.1	1.6E-04	1.3E-04	1.1E-04	9.0E-05	6.7E-05	4.3E-05
31.0	485.1	477.4	469.7	462.0	1.6E-04	1.4E-04	1.2E-04	9.4E-05	7.1E-05	4.7E-05
31.5	485.9	478.3	470.6	462.9	1.6E-04	1.4E-04	1.2E-04	9.8E-05	7.5E-05	5.1E-05
32.0	486.8	479.1	471.5	463.8	1.7E-04	1.5E-04	1.2E-04	1.0E-04	7.8E-05	5.5E-05
32.5	487.6	480.0	472.4	464.7	1.7E-04	1.5E-04	1.3E-04	1.1E-04	8.2E-05	5.9E-05
33.0	488.4	480.8	473.2	465.6	1.7E-04	1.5E-04	1.3E-04	1.1E-04	8.6E-05	6.2E-05
33.5	489.2	481.7	474.1	466.4	1.8E-04	1.6E-04	1.3E-04	1.1E-04	9.0E-05	6.6E-05
34.0	490.1	482.5	474.9	467.3	1.8E-04	1.6E-04	1.4E-04	1.2E-04	9.3E-05	7.0E-05
34.5	490.9	483.4	475.8	468.2	1.8E-04	1.6E-04	1.4E-04	1.2E-04	9.7E-05	7.4E-05
35.0	491.7	484.2	476.6	469.0	1.8E-04	1.6E-04	1.4E-04	1.2E-04	1.0E-04	7.8E-05
35.5	492.5	485.0	477.5	469.9	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.0E-04	8.2E-05
36.0	493.3	485.8	478.3	470.8	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.1E-04	8.5E-05
36.5	494.1	486.7	479.2	471.6	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.1E-04	8.9E-05
37.0	494.9	487.5	480.0	472.5	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.2E-04	9.3E-05
37.5	495.7	488.3	480.8	473.3	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.2E-04	9.6E-05
38.0	496.4	489.1	481.6	474.1	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.2E-04	1.0E-04
38.5	497.2	489.9	482.4	475.0	2.1E-04	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.0E-04
39.0	498.0	490.6	483.2	475.8	2.1E-04	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.1E-04
39.5	498.7	491.4	484.1	476.6	2.1E-04	1.9E-04	1.7E-04	1.5E-04	1.3E-04	1.1E-04
40.0	499.5	492.2	484.8	477.4	2.1E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.1E-04
40.5	500.2	493.0	485.6	478.2	2.2E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.2E-04
41.0	501.0	493.7	486.4	479.1	2.2E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04	1.2E-04
41.5	501.7	494.5	487.2	479.9	2.2E-04	2.0E-04	1.9E-04	1.7E-04	1.5E-04	1.2E-04
42.0	502.5	495.2	488.0	480.6	2.3E-04	2.1E-04	1.9E-04	1.7E-04	1.5E-04	1.3E-04
42.5	503.2	496.0	488.7	481.4	2.3E-04	2.1E-04	1.9E-04	1.7E-04	1.5E-04	1.3E-04
43.0	503.9	496.7	489.5	482.2	2.3E-04	2.1E-04	1.9E-04	1.8E-04	1.6E-04	1.3E-04
43.5	504.6	497.5	490.3	483.0	2.3E-04	2.2E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04
44.0	505.3	498.2	491.0	483.8	2.4E-04	2.2E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04
44.5	506.0	498.9	491.8	484.5	2.4E-04	2.2E-04	2.0E-04	1.8E-04	1.6E-04	1.4E-04
45.0	506.7	499.6	492.5	485.3	2.4E-04	2.2E-04	2.1E-04	1.9E-04	1.7E-04	1.5E-04
45.5	507.4	500.4	493.2	486.1	2.4E-04	2.3E-04	2.1E-04	1.9E-04	1.7E-04	1.5E-04
46.0	508.1	501.1	494.0	486.8	2.5E-04	2.3E-04	2.1E-04	1.9E-04	1.7E-04	1.5E-04
46.5	508.8	501.8	494.7	487.5	2.5E-04	2.3E-04	2.1E-04	2.0E-04	1.8E-04	1.6E-04
47.0	509.5	502.5	495.4	488.3	2.5E-04	2.3E-04	2.2E-04	2.0E-04	1.8E-04	1.6E-04
47.5	510.1	503.2	496.1	489.0	2.5E-04	2.4E-04	2.2E-04	2.0E-04	1.8E-04	1.6E-04
48.0	510.8	503.8	496.8	489.7	2.6E-04	2.4E-04	2.2E-04	2.0E-04	1.9E-04	1.7E-04
48.5	511.5	504.5	497.5	490.5	2.6E-04	2.4E-04	2.3E-04	2.1E-04	1.9E-04	1.7E-04
49.0	512.1	505.2	498.2	491.2	2.6E-04	2.5E-04	2.3E-04	2.1E-04	1.9E-04	1.7E-04
49.5	512.8	505.9	498.9	491.9	2.6E-04	2.5E-04	2.3E-04	2.1E-04	1.9E-04	1.8E-04
50.0	513.4	506.5	499.6	492.6	2.7E-04	2.5E-04	2.3E-04	2.2E-04	2.0E-04	1.8E-04
50.5	514.1	507.2	500.3	493.3	2.7E-04	2.5E-04	2.4E-04	2.2E-04	2.0E-04	1.8E-04
51.0	514.7	507.9	501.0	494.0	2.7E-04	2.6E-04	2.4E-04	2.2E-04	2.0E-04	1.8E-04
51.5	515.3	508.5	501.6	494.7	2.7E-04	2.6E-04	2.4E-04	2.2E-04	2.1E-04	1.9E-04
52.0	516.0	509.2	502.3	495.4	2.8E-04	2.6E-04	2.4E-04	2.3E-04	2.1E-04	1.9E-04
52.5	516.6	509.8	502.9	496.0	2.8E-04	2.6E-04	2.5E-04	2.3E-04	2.1E-04	1.9E-04
53.0	517.2	510.4	503.6	496.7	2.8E-04	2.7E-04	2.5E-04	2.3E-04	2.1E-04	2.0E-04
53.5	517.8	511.1	504.3	497.4	2.9E-04	2.7E-04	2.5E-04	2.3E-04	2.2E-04	2.0E-04
54.0	518.5	511.7	504.9	498.1	2.9E-04	2.7E-04	2.5E-04	2.4E-04	2.2E-04	2.0E-04
54.5	519.1	512.3	505.6	498.7	2.9E-04	2.8E-04	2.6E-04	2.4E-04	2.2E-04	2.0E-04
55.0	519.7	513.0	506.2	499.4	3.0E-04	2.8E-04	2.6E-04	2.4E-04	2.3E-04	2.1E-04
55.5	520.7	513.6	506.8	500.0	3.0E-04	2.8E-04	2.6E-04	2.5E-04	2.3E-04	2.1E-04
56.0	521.7	514.2	507.5	500.7	3.1E-04	2.9E-04	2.7E-04	2.5E-04	2.3E-04	2.1E-04
56.5	522.8	514.9	508.1	501.3	3.1E-04	2.9E-04	2.7E-04	2.5E-04	2.3E-04	2.2E-04
57.0	523.8	515.9	508.7	502.0	3.1E-04	2.9E-04	2.7E-04	2.5E-04	2.4E-04	2.2E-04
57.5	524.8	517.0	509.4	502.6	3.2E-04	3.0E-04	2.8E-04	2.6E-04	2.4E-04	2.2E-04
58.0	525.8	518.0	510.2	503.3	3.2E-04	3.0E-04	2.8E-04	2.6E-04	2.4E-04	2.2E-04
58.5	526.9	519.1	511.2	503.9	3.2E-04	3.0E-04	2.9E-04	2.7E-04	2.5E-04	2.3E-04

ORUANUI BT

	3.35 BF	3.25 BF	3.15 BF	3.05 BF	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF
ΔH (kJ)	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
59.0	527.8	520.1	512.3	504.5	3.3E-04	3.1E-04	2.9E-04	2.7E-04	2.5E-04	2.3E-04
59.5	528.8	521.1	513.3	505.5		3.1E-04	2.9E-04	2.7E-04	2.5E-04	2.3E-04
60.0	529.8	522.1	514.3	506.5		3.1E-04	3.0E-04	2.8E-04	2.6E-04	2.4E-04
60.5	530.7	523.1	515.4	507.6		3.2E-04	3.0E-04	2.8E-04	2.6E-04	2.4E-04
61.0	531.7	524.1	516.4	508.6			3.0E-04	2.8E-04	2.7E-04	2.4E-04
61.5	532.6	525.0	517.4	509.6			3.1E-04	2.9E-04	2.7E-04	2.5E-04
62.0		526.0	518.4	510.7				2.9E-04	2.7E-04	2.5E-04
62.5		526.9	519.3	511.7				3.0E-04	2.8E-04	2.6E-04
63.0		527.8	520.3	512.7				3.0E-04	2.8E-04	2.6E-04
63.5			521.2	513.6					2.8E-04	2.6E-04
64.0			522.2	514.6					2.9E-04	2.7E-04
64.5			523.1	515.6					2.9E-04	2.7E-04
65.0				516.5						2.8E-04
65.5				517.4						2.8E-04
66.0				518.3						2.8E-04

ORUANUI BT

ΔH (kJ)	3.55 BF Porosity	3.45 BF Porosity	3.35 BF Porosity	3.25 BF Porosity	3.15 BF Porosity	3.05 BF Porosity
0.0	1.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0.5	2.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1.0	3.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1.5	5.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2.0	6.3E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2.5	7.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3.0	9.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3.5	1.0E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4.0	1.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4.5	1.3E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5.0	1.4E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5.5	1.5E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6.0	1.7E-02	1.2E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6.5	1.8E-02	2.6E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7.0	1.9E-02	3.9E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7.5	2.1E-02	5.2E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
8.0	2.2E-02	6.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
8.5	2.3E-02	7.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
9.0	2.4E-02	9.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
9.5	2.6E-02	1.0E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
10.0	2.7E-02	1.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
10.5	2.8E-02	1.3E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
11.0	2.9E-02	1.4E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
11.5	3.1E-02	1.6E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
12.0	3.2E-02	1.7E-02	1.5E-03	0.0E+00	0.0E+00	0.0E+00
12.5	3.3E-02	1.8E-02	2.9E-03	0.0E+00	0.0E+00	0.0E+00
13.0	3.4E-02	2.0E-02	4.3E-03	0.0E+00	0.0E+00	0.0E+00
13.5	3.6E-02	2.1E-02	5.7E-03	0.0E+00	0.0E+00	0.0E+00
14.0	3.7E-02	2.2E-02	7.0E-03	0.0E+00	0.0E+00	0.0E+00
14.5	3.8E-02	2.4E-02	8.4E-03	0.0E+00	0.0E+00	0.0E+00
15.0	3.9E-02	2.5E-02	9.7E-03	0.0E+00	0.0E+00	0.0E+00
15.5	4.1E-02	2.6E-02	1.1E-02	0.0E+00	0.0E+00	0.0E+00
16.0	4.2E-02	2.7E-02	1.2E-02	0.0E+00	0.0E+00	0.0E+00
16.5	4.3E-02	2.9E-02	1.4E-02	0.0E+00	0.0E+00	0.0E+00
17.0	4.4E-02	3.0E-02	1.5E-02	0.0E+00	0.0E+00	0.0E+00
17.5	4.5E-02	3.1E-02	1.6E-02	9.6E-04	0.0E+00	0.0E+00
18.0	4.6E-02	3.2E-02	1.8E-02	2.3E-03	0.0E+00	0.0E+00
18.5	4.8E-02	3.4E-02	1.9E-02	3.7E-03	0.0E+00	0.0E+00
19.0	4.9E-02	3.5E-02	2.0E-02	5.0E-03	0.0E+00	0.0E+00
19.5	5.1E-02	3.6E-02	2.1E-02	6.4E-03	0.0E+00	0.0E+00
20.0	5.4E-02	3.7E-02	2.3E-02	7.7E-03	0.0E+00	0.0E+00
20.5	5.7E-02	3.8E-02	2.4E-02	9.0E-03	0.0E+00	0.0E+00
21.0	6.0E-02	4.1E-02	2.5E-02	1.0E-02	0.0E+00	0.0E+00
21.5	6.4E-02	4.4E-02	2.6E-02	1.2E-02	0.0E+00	0.0E+00
22.0	6.7E-02	4.7E-02	2.8E-02	1.3E-02	0.0E+00	0.0E+00
22.5	7.0E-02	5.1E-02	3.1E-02	1.4E-02	0.0E+00	0.0E+00
23.0	7.3E-02	5.4E-02	3.4E-02	1.6E-02	0.0E+00	0.0E+00
23.5	7.6E-02	5.7E-02	3.7E-02	1.7E-02	1.7E-03	0.0E+00
24.0	7.9E-02	6.0E-02	4.1E-02	2.0E-02	3.0E-03	0.0E+00
24.5	8.2E-02	6.3E-02	4.4E-02	2.4E-02	4.4E-03	0.0E+00
25.0	8.5E-02	6.7E-02	4.7E-02	2.7E-02	6.2E-03	0.0E+00
25.5	8.8E-02	7.0E-02	5.0E-02	3.0E-02	9.7E-03	0.0E+00
26.0	9.1E-02	7.3E-02	5.4E-02	3.4E-02	1.3E-02	0.0E+00
26.5	9.4E-02	7.6E-02	5.7E-02	3.7E-02	1.7E-02	0.0E+00
27.0	9.7E-02	7.9E-02	6.0E-02	4.0E-02	2.0E-02	0.0E+00
27.5	1.0E-01	8.2E-02	6.3E-02	4.4E-02	2.4E-02	2.6E-03
28.0	0.10	8.5E-02	6.6E-02	4.7E-02	2.7E-02	6.1E-03
28.5	0.11	8.8E-02	6.9E-02	5.0E-02	3.0E-02	9.6E-03
29.0	0.11	9.1E-02	7.2E-02	5.3E-02	3.4E-02	1.3E-02

ORUANUI BT

	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
29.5	0.11	9.4E-02	7.5E-02	5.7E-02	3.7E-02	1.7E-02
30.0	0.11	9.7E-02	7.8E-02	6.0E-02	4.0E-02	2.0E-02
30.5	0.12	9.9E-02	8.1E-02	6.3E-02	4.3E-02	2.3E-02
31.0	0.12	0.10	8.4E-02	6.6E-02	4.7E-02	2.7E-02
31.5	0.12	0.11	8.7E-02	6.9E-02	5.0E-02	3.0E-02
32.0	0.12	0.11	9.0E-02	7.2E-02	5.3E-02	3.3E-02
32.5	0.13	0.11	9.3E-02	7.5E-02	5.6E-02	3.7E-02
33.0	0.13	0.11	9.6E-02	7.8E-02	5.9E-02	4.0E-02
33.5	0.13	0.12	9.9E-02	8.1E-02	6.2E-02	4.3E-02
34.0	0.14	0.12	0.10	8.4E-02	6.6E-02	4.6E-02
34.5	0.14	0.12	0.10	8.7E-02	6.9E-02	5.0E-02
35.0	0.14	0.12	0.11	9.0E-02	7.2E-02	5.3E-02
35.5	0.14	0.13	0.11	9.3E-02	7.5E-02	5.6E-02
36.0	0.15	0.13	0.11	9.6E-02	7.8E-02	5.9E-02
36.5	0.15	0.13	0.12	9.8E-02	8.1E-02	6.2E-02
37.0	0.15	0.13	0.12	0.10	8.4E-02	6.5E-02
37.5	0.15	0.14	0.12	0.10	8.6E-02	6.8E-02
38.0	0.16	0.14	0.12	0.11	8.9E-02	7.1E-02
38.5	0.16	0.14	0.13	0.11	9.2E-02	7.4E-02
39.0	0.16	0.14	0.13	0.11	9.5E-02	7.7E-02
39.5	0.16	0.15	0.13	0.11	9.8E-02	8.0E-02
40.0	0.16	0.15	0.13	0.12	0.10	8.3E-02
40.5	0.17	0.15	0.14	0.12	0.10	8.6E-02
41.0	0.17	0.15	0.14	0.12	0.11	8.9E-02
41.5	0.17	0.16	0.14	0.13	0.11	9.2E-02
42.0	0.17	0.16	0.14	0.13	0.11	9.4E-02
42.5	0.18	0.16	0.15	0.13	0.11	9.7E-02
43.0	0.18	0.16	0.15	0.13	0.12	1.0E-01
43.5	0.18	0.17	0.15	0.14	0.12	0.10
44.0	0.18	0.17	0.15	0.14	0.12	0.11
44.5	0.19	0.17	0.16	0.14	0.12	0.11
45.0	0.19	0.17	0.16	0.14	0.13	0.11
45.5	0.19	0.18	0.16	0.15	0.13	0.11
46.0	0.19	0.18	0.16	0.15	0.13	0.12
46.5	0.19	0.18	0.17	0.15	0.13	0.12
47.0	0.20	0.18	0.17	0.15	0.14	0.12
47.5	0.20	0.18	0.17	0.16	0.14	0.12
48.0	0.20	0.19	0.17	0.16	0.14	0.13
48.5	0.20	0.19	0.17	0.16	0.14	0.13
49.0	0.20	0.19	0.18	0.16	0.15	0.13
49.5	0.21	0.19	0.18	0.16	0.15	0.13
50.0	0.21	0.19	0.18	0.17	0.15	0.14
50.5	0.21	0.20	0.18	0.17	0.15	0.14
51.0	0.21	0.20	0.19	0.17	0.16	0.14
51.5	0.21	0.20	0.19	0.17	0.16	0.14
52.0	0.22	0.20	0.19	0.18	0.16	0.15
52.5	0.22	0.20	0.19	0.18	0.16	0.15
53.0	0.22	0.21	0.19	0.18	0.17	0.15
53.5	0.22	0.21	0.20	0.18	0.17	0.15
54.0	0.23	0.21	0.20	0.18	0.17	0.16
54.5	0.23	0.21	0.20	0.19	0.17	0.16
55.0	0.23	0.22	0.20	0.19	0.17	0.16
55.5	0.24	0.22	0.20	0.19	0.18	0.16
56.0	0.24	0.22	0.21	0.19	0.18	0.16
56.5	0.24	0.23	0.21	0.19	0.18	0.17
57.0	0.25	0.23	0.21	0.20	0.18	0.17
57.5	0.25	0.23	0.22	0.20	0.19	0.17
58.0	0.25	0.24	0.22	0.20	0.19	0.17
58.5	0.25	0.24	0.22	0.21	0.19	0.18

ORUANUI BT

	3.55 BF	3.45 BF	3.35 BF	3.25 BF	3.15 BF	3.05 BF
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
59.0	0.26	0.24	0.23	0.21	0.19	0.18
59.5		0.24	0.23	0.21	0.20	0.18
60.0		0.25	0.23	0.22	0.20	0.18
60.5		0.25	0.24	0.22	0.20	0.19
61.0			0.24	0.22	0.21	0.19
61.5			0.24	0.23	0.21	0.19
62.0				0.23	0.21	0.20
62.5				0.23	0.22	0.20
63.0				0.23	0.22	0.20
63.5					0.22	0.21
64.0					0.23	0.21
64.5					0.23	0.21
65.0						0.22
65.5						0.22
66.0						0.22

OHAKURI ISENTHALPIC DATA (average bulk pumice Type 1) - 50 Mpa (Begue JPET)

	2.49	2.39	2.29	2.19	2.09	2.49	2.39	2.29	2.19	2.09	2.49	2.39
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*	*DV*	*DV*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.22	0.14	0.25	0.26	0.29	3.98	-1.60	-1.92	-1.96	-2.05	0.37	-0.10
1.0	0.58	0.42	0.53	0.54	0.57	9.69	-3.60	-3.94	-4.00	-4.11	1.11	-0.24
1.5	0.93	0.70	0.81	0.83	0.86	13.6	-5.61	-5.96	-6.05	-6.18	1.84	-0.37
2.0	1.29	0.98	1.10	1.11	1.16	16.4	-7.63	-8.00	-8.10	-8.37	2.57	-0.50
2.5	1.86	1.26	1.38	1.53	1.71	19.4	-9.65	-10.1	-11.1	-12.4	3.68	-0.63
3.0	2.79	1.55	1.92	2.07	2.26	22.6	-11.7	-14.0	-15.1	-16.5	5.48	-0.76
3.5	3.73	2.08	2.46	2.61	2.80	24.6	-15.6	-17.9	-19.1	-20.5	7.26	-1.01
4.0	4.66	2.61	2.99	3.15	3.35	26.0	-19.4	-21.8	-23.1	-24.6	9.04	-1.25
4.5	5.62	3.14	3.52	3.68	3.89	27.1	-23.3	-25.7	-27.1	-28.7	10.9	-1.50
5.0	6.59	3.99	4.05	4.22	4.43	27.9	-1.56	-29.7	-31.1	-32.8	12.7	-0.16
5.5	7.57	4.92	4.58	4.75	4.97	28.6	10.3	-33.7	-35.1	-37.0	14.6	1.63
6.0	8.55	5.86	5.11	5.28	5.50	29.1	16.2	-37.6	-39.2	-41.1	16.4	3.42
6.5	9.52	6.79	5.63	5.81	6.04	29.5	19.8	-41.6	-43.3	-45.3	18.3	5.20
7.0	10.5	7.73	6.17	6.34	6.57	29.9	22.1	-45.7	-47.4	-49.4	20.1	6.98
7.5	11.5	8.66	6.71	6.87	7.10	30.2	23.8	-49.7	-51.5	-53.6	21.9	8.74
8.0	12.5	9.59	7.60	7.41	7.63	30.4	25.0	-16.1	-55.6	-57.8	23.8	10.5
8.5	13.4	10.5	8.58	7.95	8.16	30.6	26.0	1.11	-59.8	-62.1	25.6	12.3
9.0	14.4	11.5	9.56	8.49	8.71	30.8	26.8	9.52	-64.0	-66.3	27.4	14.0
9.5	15.4	12.4	10.5	9.03	9.25	31.0	27.4	14.5	-68.2	-70.6	29.2	15.8
10.0	16.4	13.4	11.5	9.57	9.79	31.1	28.0	17.8	-72.4	-74.9	31.0	17.6
10.5	17.4	14.4	12.5	10.1	10.3	31.3	28.4	20.1	-76.6	-79.3	32.8	19.5
11.0	18.4	15.4	13.5	10.8	10.9	31.4	28.8	21.9	-51.0	-83.6	34.7	21.3
11.5	19.4	16.4	14.5	11.8	11.4	31.5	29.2	23.2	-16.4	-88.0	36.5	23.2
12.0	20.3	17.4	15.5	12.8	11.9	31.6	29.5	24.3	-1.81	-92.3	38.3	25.0
12.5	21.4	18.4	16.4	13.7	12.5	31.7	29.7	25.2	6.22	-96.7	40.1	26.8
13.0	22.4	19.4	17.4	14.7	13.0	31.8	29.9	25.9	11.3	-101.1	42.0	28.7
13.5	23.5	20.4	18.4	15.7	13.5	31.8	30.1	26.5	14.8	-105.6	43.9	30.5
14.0	24.5	21.4	19.4	16.7	14.0	31.9	30.3	27.0	17.4	-110.0	45.8	32.4
14.5	25.6	22.4	20.4	17.7	15.0	32.0	30.5	27.5	19.3	-41.1	47.7	34.2
15.0	26.7	23.5	21.5	18.7	16.0	32.0	30.6	27.9	20.8	-16.2	49.6	36.0
15.5	27.8	24.5	22.5	19.7	17.0	32.1	30.7	28.2	22.1	-3.69	51.5	37.9
16.0	28.9	25.5	23.6	20.7	18.0	32.1	30.9	28.5	23.1	3.81	53.5	39.7
16.5	30.0	26.6	24.6	21.8	19.0	32.2	31.0	28.8	24.0	8.82	55.4	41.6
17.0	31.1	27.7	25.7	22.8	20.0	32.2	31.1	29.1	24.8	12.4	57.4	43.5
17.5	32.3	28.7	26.8	23.9	21.0	32.3	31.2	29.3	25.4	15.1	59.4	45.4
18.0	33.4	29.8	27.9	24.9	22.1	32.3	31.2	29.5	26.0	17.3	61.4	47.3
18.5	34.6	30.9	29.0	26.0	23.1	32.3	31.3	29.7	26.4	19.0	63.4	49.2
19.0	35.8	32.1	30.1	27.1	24.2	32.4	31.4	29.9	26.9	20.4	65.4	51.2
19.5	37.0	33.2	31.2	28.2	25.3	32.4	31.5	30.0	27.3	21.5	67.5	53.2
20.0	38.3	34.4	32.4	29.3	26.3	32.4	31.5	30.2	27.6	22.5	69.6	55.2
20.5	39.5	35.6	33.5	30.4	27.4	32.5	31.6	30.3	27.9	23.3	71.7	57.2
21.0	40.8	36.8	34.7	31.6	28.5	32.5	31.7	30.4	28.2	24.0	73.9	59.3
21.5	42.1	38.0	35.9	32.7	29.7	32.5	31.7	30.5	28.5	24.7	76.1	61.3
22.0	43.5	39.3	37.2	33.9	30.8	32.5	31.8	30.7	28.7	25.2	78.3	63.4
22.5	44.8	40.6	38.4	35.1	31.9	32.6	31.8	30.8	28.9	25.7	80.5	65.6
23.0	46.2	41.9	39.7	36.3	33.1	32.6	31.9	30.9	29.1	26.2	82.8	67.7
23.5	47.7	43.2	41.0	37.5	34.3	32.6	31.9	31.0	29.3	26.6	85.1	69.9
24.0	49.2	44.6	42.3	38.8	35.5	32.6	32.0	31.0	29.5	26.9	87.5	72.1
24.5	50.6	45.9	43.6	40.1	36.7	32.7	32.0	31.1	29.6	27.3	89.9	74.4
25.0	52.1	47.4	45.0	41.4	37.9	32.7	32.1	31.2	29.8	27.6	92.2	76.7
25.5	53.5	48.8	46.4	42.7	39.2	32.7	32.1	31.3	29.9	27.8	94.5	79.1
26.0	55.0	50.3	47.9	44.1	40.5	32.7	32.1	31.3	30.0	28.1	96.8	81.4
26.5	56.4	51.7	49.4	45.4	41.8	32.7	32.2	31.4	30.2	28.3	99.1	83.7
27.0	57.8	53.2	50.8	46.9	43.2	32.7	32.2	31.5	30.3	28.5	101.4	86.0
27.5	59.3	54.6	52.3	48.3	44.5	32.8	32.2	31.5	30.4	28.8	103.6	88.3
28.0	60.7	56.0	53.7	49.8	45.9	32.8	32.3	31.6	30.5	28.9	105.8	90.5
28.5	62.1	57.4	55.2	51.3	47.3	32.8	32.3	31.6	30.6	29.1	108.0	92.8

OHAKURI ISENTHALPIC DATA (average bulk pumice Type 1) - 50 Mpa (Begue JPET)

	2.49	2.39	2.29	2.19	2.09	2.49	2.39	2.29	2.19	2.09	2.49	2.39
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*	*DV*	*DV*
29.0	63.4	58.8	56.6	52.7	48.8	32.8	32.3	31.7	30.7	29.3	110.2	95.0
29.5	64.8	60.2	58.0	54.2	50.3	32.8	32.3	31.7	30.8	29.5	112.3	97.2
30.0	66.2	61.6	59.5	55.6	51.8	32.8	32.4	31.8	30.9	29.6	114.4	99.4
30.5	67.5	63.0	60.9	57.1	53.2	32.8	32.4	31.8	30.9	29.7	116.5	101.5
31.0	68.8	64.4	62.3	58.5	54.7	32.8	32.4	31.8	31.0	29.9	118.5	103.6
31.5	70.1	65.7	63.7	59.9	56.1	32.8	32.4	31.9	31.1	30.0	120.4	105.7
32.0	71.4	67.0	65.0	61.3	57.5	32.8	32.4	31.9	31.1	30.1	122.3	107.8
32.5	72.6	68.4	66.4	62.7	59.0	32.8	32.4	31.9	31.2	30.2	124.2	109.8
33.0	73.8	69.7	67.7	64.1	60.4	32.8	32.4	31.9	31.2	30.3	126.0	111.8
33.5	75.0	70.9	69.0	65.5	61.8	32.8	32.4	32.0	31.3	30.3	127.7	113.7
34.0	76.1	72.2	70.3	66.8	63.2	32.8	32.4	32.0	31.3	30.4	129.3	115.6
34.5	77.2	73.4	71.6	68.1	64.6	32.8	32.4	32.0	31.3	30.5	130.8	117.5
35.0	78.2	74.7	72.8	69.5	65.9	32.7	32.4	32.0	31.4	30.6	132.3	119.3
35.5	79.2	75.8	74.0	70.7	67.3	32.7	32.4	32.0	31.4	30.6	133.7	121.0
36.0	80.2	77.0	75.2	72.0	68.6	32.7	32.4	32.0	31.4	30.7	134.9	122.7
36.5	81.1	78.1	76.3	73.2	69.9	32.7	32.4	32.0	31.5	30.7	136.1	124.3
37.0	81.9	79.1	77.4	74.4	71.2	32.7	32.4	32.0	31.5	30.8	137.1	125.8
37.5	82.7	80.1	78.5	75.6	72.4	32.6	32.4	32.0	31.5	30.8	138.0	127.1
38.0	83.4	81.1	79.5	76.7	73.7	32.6	32.4	32.0	31.5	30.8	138.9	128.4
38.5	84.1	82.0	80.4	77.8	74.8	32.6	32.4	32.0	31.5	30.9	139.6	129.6
39.0	84.8	82.8	81.3	78.8	76.0	32.5	32.4	32.0	31.5	30.9	140.2	130.6
39.5	85.4	83.6	82.1	79.8	77.1	32.5	32.3	32.0	31.5	30.9	140.8	131.5
40.0	85.9	84.3	82.9	80.7	78.2	32.4	32.3	31.9	31.5	30.9	141.2	132.3
40.5	86.4	85.0	83.7	81.6	79.2	32.4	32.3	31.9	31.5	30.9	141.6	133.0
41.0	86.9	85.6	84.4	82.5	80.2	32.3	32.2	31.9	31.5	30.9	141.9	133.7
41.5	87.3	86.2	85.0	83.2	81.1	32.3	32.2	31.8	31.4	30.9	142.1	134.2
42.0	87.7	86.7	85.6	84.0	82.0	32.2	32.1	31.8	31.4	30.9	142.2	134.6
42.5	88.1	87.2	86.1	84.6	82.8	32.2	32.1	31.8	31.4	30.9	142.4	134.9
43.0			86.6	85.3	83.5			31.7	31.4	30.9		
43.5			87.1	85.8	84.3			31.7	31.3	30.9		
44.0			87.6	86.4	84.9			31.6	31.3	30.9		
44.5				86.9	85.5				31.2	30.8		
45.0				87.3	86.1				31.2	30.8		
45.5					86.6					30.8		
46.0					87.1					30.7		
46.5					87.6					30.7		

OHAKURI I

	2.29	2.19	2.09	2.49	2.39	2.29	2.19	2.09	2.49	2.39	2.29	2.19
ΔH (kJ)	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*
0.0	0.00	0.00	0.00	458.3	456.4	455.4	454.3	453.1	1.8E-05	1.4E-05	1.4E-05	1.4E-05
0.5	-0.12	-0.12	-0.13	458.7	456.3	455.3	454.1	453.0	2.0E-05	1.4E-05	1.4E-05	1.4E-05
1.0	-0.25	-0.25	-0.25	459.4	456.2	455.1	454.0	452.8	2.5E-05	1.4E-05	1.4E-05	1.4E-05
1.5	-0.38	-0.38	-0.38	460.1	456.0	455.0	453.9	452.7	3.0E-05	1.4E-05	1.4E-05	1.4E-05
2.0	-0.51	-0.51	-0.52	460.9	455.9	454.9	453.7	452.6	3.4E-05	1.4E-05	1.4E-05	1.4E-05
2.5	-0.64	-0.70	-0.76	462.0	455.8	454.8	453.6	452.3	4.1E-05	1.4E-05	1.4E-05	1.4E-05
3.0	-0.89	-0.94	-1.01	463.8	455.6	454.5	453.3	452.1	5.2E-05	1.4E-05	1.4E-05	1.4E-05
3.5	-1.14	-1.19	-1.26	465.6	455.4	454.3	453.1	451.8	6.3E-05	1.4E-05	1.4E-05	1.4E-05
4.0	-1.38	-1.43	-1.50	467.3	455.1	454.0	452.8	451.6	7.4E-05	1.4E-05	1.4E-05	1.4E-05
4.5	-1.63	-1.68	-1.75	469.2	454.9	453.8	452.6	451.3	8.5E-05	1.4E-05	1.4E-05	1.4E-05
5.0	-1.87	-1.92	-1.99	471.0	456.2	453.5	452.3	451.1	9.7E-05	2.3E-05	1.4E-05	1.4E-05
5.5	-2.11	-2.16	-2.23	472.9	458.0	453.3	452.1	450.9	1.1E-04	3.4E-05	1.4E-05	1.4E-05
6.0	-2.36	-2.41	-2.47	474.7	459.8	453.0	451.8	450.6	1.2E-04	4.6E-05	1.4E-05	1.4E-05
6.5	-2.60	-2.65	-2.72	476.5	461.6	452.8	451.6	450.4	1.3E-04	5.7E-05	1.4E-05	1.4E-05
7.0	-2.84	-2.89	-2.96	478.4	463.4	452.6	451.4	450.1	1.4E-04	6.8E-05	1.4E-05	1.4E-05
7.5	-3.08	-3.13	-3.20	480.2	465.1	452.3	451.1	449.9	1.5E-04	7.9E-05	1.4E-05	1.3E-05
8.0	-1.69	-3.37	-3.44	482.0	466.9	453.7	450.9	449.7	1.6E-04	9.0E-05	2.3E-05	1.3E-05
8.5	0.18	-3.62	-3.68	483.9	468.7	455.6	450.6	449.4	1.7E-04	1.0E-04	3.5E-05	1.3E-05
9.0	2.03	-3.86	-3.92	485.7	470.4	457.4	450.4	449.2	1.8E-04	1.1E-04	4.7E-05	1.3E-05
9.5	3.89	-4.10	-4.16	487.5	472.2	459.3	450.2	448.9	1.9E-04	1.2E-04	5.8E-05	1.3E-05
10.0	5.74	-4.34	-4.40	489.3	474.0	461.1	449.9	448.7	2.0E-04	1.3E-04	7.0E-05	1.3E-05
10.5	7.58	-4.58	-4.64	491.1	475.9	463.0	449.7	448.5	2.1E-04	1.4E-04	8.1E-05	1.3E-05
11.0	9.43	-4.05	-4.88	492.9	477.7	464.8	450.2	448.2	2.2E-04	1.5E-04	9.3E-05	1.8E-05
11.5	11.3	-2.19	-5.11	494.8	479.6	466.7	452.1	448.0	2.3E-04	1.7E-04	1.0E-04	3.0E-05
12.0	13.1	-0.34	-5.35	496.6	481.4	468.5	453.9	447.7	2.4E-04	1.8E-04	1.2E-04	4.1E-05
12.5	14.9	1.51	-5.59	498.4	483.2	470.3	455.8	447.5	2.5E-04	1.9E-04	1.3E-04	5.3E-05
13.0	16.8	3.36	-5.82	500.3	485.1	472.2	457.6	447.3	2.6E-04	2.0E-04	1.4E-04	6.5E-05
13.5	18.6	5.20	-6.06	502.2	486.9	474.0	459.5	447.0	2.7E-04	2.1E-04	1.5E-04	7.6E-05
14.0	20.4	7.04	-6.29	504.1	488.7	475.8	461.3	446.8	2.8E-04	2.2E-04	1.6E-04	8.8E-05
14.5	22.2	8.88	-4.51	506.0	490.6	477.6	463.1	448.6	2.9E-04	2.3E-04	1.7E-04	9.9E-05
15.0	24.1	10.7	-2.66	507.9	492.4	479.5	465.0	450.4	3.1E-04	2.4E-04	1.8E-04	1.1E-04
15.5	26.0	12.6	-0.81	509.8	494.3	481.4	466.8	452.3	3.2E-04	2.5E-04	1.9E-04	1.2E-04
16.0	27.9	14.4	1.04	511.8	496.1	483.3	468.7	454.1	3.3E-04	2.6E-04	2.0E-04	1.3E-04
16.5	29.9	16.3	2.89	513.7	498.0	485.3	470.6	456.0	3.4E-04	2.7E-04	2.1E-04	1.4E-04
17.0	31.8	18.2	4.73	515.7	499.9	487.2	472.5	457.8	3.5E-04	2.8E-04	2.2E-04	1.6E-04
17.5	33.7	20.1	6.61	517.7	501.7	489.1	474.4	459.7	3.6E-04	2.9E-04	2.4E-04	1.7E-04
18.0	35.6	22.1	8.53	519.7	503.6	491.0	476.3	461.6	3.7E-04	3.0E-04	2.5E-04	1.8E-04
18.5	37.6	24.0	10.5	521.7	505.6	493.0	478.2	463.6	3.8E-04	3.1E-04	2.6E-04	1.9E-04
19.0	39.6	25.9	12.4	523.7	507.6	495.0	480.2	465.5	3.9E-04	3.2E-04	2.7E-04	2.0E-04
19.5	41.5	27.9	14.3	525.8	509.5	496.9	482.1	467.4	4.0E-04	3.3E-04	2.8E-04	2.1E-04
20.0	43.5	29.8	16.3	527.9	511.6	498.9	484.1	469.4	4.1E-04	3.4E-04	2.9E-04	2.2E-04
20.5	45.5	31.8	18.2	530.0	513.6	500.9	486.1	471.3	4.2E-04	3.5E-04	3.0E-04	2.3E-04
21.0	47.6	33.8	20.2	532.2	515.6	503.0	488.1	473.3	4.3E-04	3.6E-04	3.1E-04	2.5E-04
21.5	49.6	35.8	22.1	534.4	517.7	505.0	490.1	475.2	4.4E-04	3.7E-04	3.2E-04	2.6E-04
22.0	51.7	37.8	24.1	536.6	519.8	507.1	492.1	477.2	4.5E-04	3.8E-04	3.3E-04	2.7E-04
22.5	53.8	39.9	26.1	538.8	522.0	509.2	494.1	479.2	4.6E-04	3.9E-04	3.4E-04	2.8E-04
23.0	56.0	42.0	28.1	541.1	524.1	511.4	496.2	481.2	4.7E-04	4.1E-04	3.5E-04	2.9E-04
23.5	58.2	44.1	30.2	543.4	526.3	513.6	498.3	483.3	4.8E-04	4.2E-04	3.7E-04	3.0E-04
24.0	60.3	46.2	32.3	545.8	528.5	515.7	500.4	485.3	4.9E-04	4.3E-04	3.8E-04	3.1E-04
24.5	62.6	48.4	34.3	548.2	530.8	518.0	502.6	487.4	5.0E-04	4.4E-04	3.9E-04	3.2E-04
25.0	64.8	50.5	36.5	550.5	533.1	520.2	504.8	489.5	5.1E-04	4.5E-04	4.0E-04	3.4E-04
25.5	67.1	52.7	38.6	552.8	535.5	522.5	507.0	491.7	5.2E-04	4.6E-04	4.1E-04	3.5E-04
26.0	69.5	55.0	40.8	555.1	537.8	524.9	509.2	493.9	5.3E-04	4.7E-04	4.2E-04	3.6E-04
26.5	71.8	57.2	43.0	557.4	540.1	527.2	511.5	496.1	5.4E-04	4.8E-04	4.3E-04	3.7E-04
27.0	74.2	59.5	45.2	559.7	542.4	529.6	513.8	498.3	5.5E-04	4.9E-04	4.5E-04	3.8E-04
27.5	76.5	61.9	47.4	561.9	544.7	531.9	516.2	500.5	5.6E-04	5.0E-04	4.6E-04	3.9E-04
28.0	78.9	64.3	49.7	564.1	546.9	534.3	518.5	502.8	5.7E-04	5.1E-04	4.7E-04	4.1E-04
28.5	81.2	66.6	52.0	566.3	549.2	536.6	520.9	505.1	5.8E-04	5.2E-04	4.8E-04	4.2E-04

OHAKURI I

	2.29	2.19	2.09	2.49	2.39	2.29	2.19	2.09	2.49	2.39	2.29	2.19
ΔH (kJ)	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*
29.0	83.5	69.0	54.4	568.5	551.4	538.9	523.2	507.5	5.9E-04	5.3E-04	4.9E-04	4.3E-04
29.5	85.7	71.3	56.8	570.6	553.6	541.1	525.6	509.9	6.0E-04	5.4E-04	5.0E-04	4.4E-04
30.0	88.0	73.6	59.1	572.7	555.8	543.4	527.9	512.2	6.1E-04	5.5E-04	5.1E-04	4.5E-04
30.5	90.2	75.9	61.5	574.7	557.9	545.6	530.2	514.6	6.2E-04	5.6E-04	5.2E-04	4.6E-04
31.0	92.4	78.2	63.8	576.8	560.0	547.8	532.4	516.9	6.3E-04	5.7E-04	5.3E-04	4.7E-04
31.5	94.6	80.4	66.1	578.7	562.1	550.0	534.7	519.2	6.3E-04	5.8E-04	5.4E-04	4.8E-04
32.0	96.7	82.6	68.4	580.6	564.2	552.1	536.9	521.5	6.4E-04	5.9E-04	5.5E-04	4.9E-04
32.5	98.8	84.8	70.6	582.5	566.2	554.2	539.1	523.7	6.5E-04	6.0E-04	5.6E-04	5.0E-04
33.0	100.9	87.0	72.9	584.2	568.2	556.3	541.2	526.0	6.6E-04	6.1E-04	5.7E-04	5.1E-04
33.5	102.9	89.1	75.1	586.0	570.1	558.3	543.4	528.2	6.6E-04	6.2E-04	5.8E-04	5.2E-04
34.0	104.8	91.2	77.3	587.6	572.0	560.2	545.5	530.4	6.7E-04	6.2E-04	5.9E-04	5.3E-04
34.5	106.8	93.3	79.4	589.1	573.9	562.1	547.5	532.5	6.8E-04	6.3E-04	5.9E-04	5.4E-04
35.0	108.6	95.3	81.6	590.6	575.7	564.0	549.5	534.7	6.8E-04	6.4E-04	6.0E-04	5.5E-04
35.5	110.4	97.2	83.7	591.9	577.4	565.8	551.5	536.7	6.9E-04	6.5E-04	6.1E-04	5.6E-04
36.0	112.1	99.1	85.7	593.2	579.1	567.5	553.4	538.8	7.0E-04	6.5E-04	6.2E-04	5.7E-04
36.5	113.8	101.0	87.7	594.3	580.7	569.2	555.2	540.8	7.0E-04	6.6E-04	6.2E-04	5.8E-04
37.0	115.3	102.8	89.6	595.4	582.1	570.7	557.0	542.7	7.1E-04	6.7E-04	6.3E-04	5.9E-04
37.5	116.8	104.5	91.5	596.3	583.5	572.2	558.7	544.6	7.1E-04	6.7E-04	6.4E-04	5.9E-04
38.0	118.2	106.1	93.4	597.2	584.8	573.5	560.3	546.5	7.1E-04	6.8E-04	6.4E-04	6.0E-04
38.5	119.4	107.6	95.1	597.9	585.9	574.8	561.9	548.2	7.2E-04	6.8E-04	6.5E-04	6.1E-04
39.0	120.6	109.1	96.8	598.5	587.0	576.0	563.3	549.9	7.2E-04	6.9E-04	6.5E-04	6.1E-04
39.5	121.7	110.4	98.4	599.0	587.9	577.0	564.7	551.5	7.2E-04	6.9E-04	6.6E-04	6.2E-04
40.0	122.6	111.7	100.0	599.5	588.7	578.0	565.9	553.1	7.3E-04	7.0E-04	6.6E-04	6.3E-04
40.5	123.5	112.8	101.4	599.9	589.4	578.9	567.1	554.5	7.3E-04	7.0E-04	6.7E-04	6.3E-04
41.0	124.2	113.9	102.7	600.2	590.0	579.6	568.1	555.8	7.3E-04	7.0E-04	6.7E-04	6.4E-04
41.5	124.9	114.8	104.0	600.4	590.6	580.3	569.1	557.1	7.3E-04	7.1E-04	6.8E-04	6.4E-04
42.0	125.4	115.6	105.1	600.5	591.0	580.8	569.9	558.2	7.3E-04	7.1E-04	6.8E-04	6.5E-04
42.5	125.9	116.4	106.1	600.6	591.3	581.3	570.6	559.2	7.4E-04	7.1E-04	6.8E-04	6.5E-04
43.0	126.3	117.0	107.0			581.7	571.3	560.1			6.8E-04	6.5E-04
43.5	126.6	117.6	107.9			582.0	571.8	561.0			6.9E-04	6.6E-04
44.0	126.9	118.0	108.6			582.3	572.3	561.7			6.9E-04	6.6E-04
44.5		118.4	109.2				572.7	562.3				6.6E-04
45.0		118.8	109.8				573.0	562.8				6.6E-04
45.5			110.2					563.3				
46.0			110.6					563.7				
46.5			110.9					564.0				

OHAKURI I

	2.09	2.49	2.39	2.29	2.19	2.09
ΔH (kJ)	*beta*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
0.0	1.4E-05	1.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0.5	1.4E-05	2.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1.0	1.4E-05	5.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1.5	1.4E-05	7.2E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2.0	1.4E-05	9.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2.5	1.4E-05	1.3E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3.0	1.4E-05	1.8E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3.5	1.4E-05	2.3E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4.0	1.3E-05	2.9E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4.5	1.3E-05	3.4E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5.0	1.3E-05	3.9E-02	4.3E-03	0.0E+00	0.0E+00	0.0E+00
5.5	1.3E-05	4.5E-02	9.8E-03	0.0E+00	0.0E+00	0.0E+00
6.0	1.3E-05	5.0E-02	1.5E-02	0.0E+00	0.0E+00	0.0E+00
6.5	1.3E-05	5.5E-02	2.1E-02	0.0E+00	0.0E+00	0.0E+00
7.0	1.3E-05	6.0E-02	2.6E-02	0.0E+00	0.0E+00	0.0E+00
7.5	1.3E-05	6.6E-02	3.1E-02	0.0E+00	0.0E+00	0.0E+00
8.0	1.3E-05	7.1E-02	3.6E-02	4.5E-03	0.0E+00	0.0E+00
8.5	1.3E-05	7.6E-02	4.1E-02	1.0E-02	0.0E+00	0.0E+00
9.0	1.3E-05	8.1E-02	4.7E-02	1.6E-02	0.0E+00	0.0E+00
9.5	1.3E-05	8.6E-02	5.2E-02	2.1E-02	0.0E+00	0.0E+00
10.0	1.3E-05	9.1E-02	5.7E-02	2.7E-02	0.0E+00	0.0E+00
10.5	1.3E-05	9.5E-02	6.2E-02	3.2E-02	0.0E+00	0.0E+00
11.0	1.3E-05	0.10	6.7E-02	3.8E-02	2.1E-03	0.0E+00
11.5	1.3E-05	0.11	7.3E-02	4.3E-02	7.8E-03	0.0E+00
12.0	1.3E-05	0.11	7.8E-02	4.9E-02	1.4E-02	0.0E+00
12.5	1.3E-05	0.11	8.3E-02	5.4E-02	1.9E-02	0.0E+00
13.0	1.3E-05	0.12	8.8E-02	5.9E-02	2.5E-02	0.0E+00
13.5	1.3E-05	0.12	9.3E-02	6.4E-02	3.0E-02	0.0E+00
14.0	1.3E-05	0.13	9.8E-02	6.9E-02	3.6E-02	0.0E+00
14.5	2.4E-05	0.13	0.10	7.5E-02	4.1E-02	5.6E-03
15.0	3.6E-05	0.14	0.11	8.0E-02	4.7E-02	1.1E-02
15.5	4.8E-05	0.14	0.11	8.5E-02	5.2E-02	1.7E-02
16.0	6.0E-05	0.15	0.12	9.0E-02	5.7E-02	2.3E-02
16.5	7.2E-05	0.15	0.12	9.5E-02	6.3E-02	2.8E-02
17.0	8.3E-05	0.16	0.13	0.10	6.8E-02	3.4E-02
17.5	9.5E-05	0.16	0.13	0.11	7.4E-02	3.9E-02
18.0	1.1E-04	0.17	0.14	0.11	7.9E-02	4.5E-02
18.5	1.2E-04	0.17	0.14	0.12	8.4E-02	5.1E-02
19.0	1.3E-04	0.18	0.15	0.12	9.0E-02	5.6E-02
19.5	1.4E-04	0.18	0.15	0.13	9.5E-02	6.2E-02
20.0	1.5E-04	0.19	0.16	0.13	0.10	6.7E-02
20.5	1.7E-04	0.19	0.16	0.14	0.11	7.3E-02
21.0	1.8E-04	0.20	0.17	0.14	0.11	7.9E-02
21.5	1.9E-04	0.20	0.17	0.15	0.12	8.4E-02
22.0	2.0E-04	0.21	0.18	0.15	0.12	9.0E-02
22.5	2.1E-04	0.21	0.18	0.16	0.13	9.5E-02
23.0	2.2E-04	0.22	0.19	0.16	0.13	0.10
23.5	2.4E-04	0.22	0.19	0.17	0.14	0.11
24.0	2.5E-04	0.23	0.20	0.17	0.14	0.11
24.5	2.6E-04	0.23	0.20	0.18	0.15	0.12
25.0	2.7E-04	0.24	0.21	0.18	0.15	0.12
25.5	2.8E-04	0.24	0.21	0.19	0.16	0.13
26.0	2.9E-04	0.25	0.22	0.19	0.16	0.13
26.5	3.1E-04	0.25	0.22	0.20	0.17	0.14
27.0	3.2E-04	0.26	0.23	0.21	0.18	0.15
27.5	3.3E-04	0.26	0.23	0.21	0.18	0.15
28.0	3.4E-04	0.27	0.24	0.22	0.19	0.16
28.5	3.5E-04	0.27	0.24	0.22	0.19	0.16

OHAKURI I

	2.09	2.49	2.39	2.29	2.19	2.09
ΔH (kJ)	*beta*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
29.0	3.7E-04	0.27	0.25	0.23	0.20	0.17
29.5	3.8E-04	0.28	0.25	0.23	0.20	0.17
30.0	3.9E-04	0.28	0.26	0.24	0.21	0.18
30.5	4.0E-04	0.29	0.26	0.24	0.21	0.19
31.0	4.1E-04	0.29	0.27	0.25	0.22	0.19
31.5	4.2E-04	0.30	0.27	0.25	0.22	0.20
32.0	4.4E-04	0.30	0.27	0.25	0.23	0.20
32.5	4.5E-04	0.30	0.28	0.26	0.23	0.21
33.0	4.6E-04	0.31	0.28	0.26	0.24	0.21
33.5	4.7E-04	0.31	0.29	0.27	0.24	0.22
34.0	4.8E-04	0.31	0.29	0.27	0.25	0.22
34.5	4.9E-04	0.32	0.29	0.28	0.25	0.23
35.0	5.0E-04	0.32	0.30	0.28	0.26	0.23
35.5	5.1E-04	0.32	0.30	0.28	0.26	0.24
36.0	5.2E-04	0.32	0.30	0.29	0.26	0.24
36.5	5.3E-04	0.33	0.31	0.29	0.27	0.25
37.0	5.4E-04	0.33	0.31	0.29	0.27	0.25
37.5	5.5E-04	0.33	0.31	0.30	0.28	0.25
38.0	5.5E-04	0.33	0.32	0.30	0.28	0.26
38.5	5.6E-04	0.33	0.32	0.30	0.28	0.26
39.0	5.7E-04	0.33	0.32	0.30	0.29	0.26
39.5	5.8E-04	0.34	0.32	0.31	0.29	0.27
40.0	5.8E-04	0.34	0.32	0.31	0.29	0.27
40.5	5.9E-04	0.34	0.32	0.31	0.29	0.27
41.0	6.0E-04	0.34	0.33	0.31	0.30	0.28
41.5	6.0E-04	0.34	0.33	0.31	0.30	0.28
42.0	6.1E-04	0.34	0.33	0.31	0.30	0.28
42.5	6.1E-04	0.34	0.33	0.32	0.30	0.29
43.0	6.2E-04			0.32	0.30	0.29
43.5	6.2E-04			0.32	0.30	0.29
44.0	6.3E-04			0.32	0.31	0.29
44.5	6.3E-04				0.31	0.29
45.0	6.3E-04				0.31	0.29
45.5	6.4E-04					0.29
46.0	6.4E-04					0.30
46.5	6.4E-04					0.30

MAMAKU ISENTHALPIC DATA (Average bulk pumice Type 1) Begue jpet)

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*	*DP*
0.0	0.00	0.00	0.00	0.09	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.10	0.10	0.11	0.31	0.33	0.33	-1.24	-1.24	-1.25	-1.43	3.80	3.00
1.0	0.31	0.31	0.32	0.53	0.63	0.63	-2.71	-2.70	-2.71	-2.86	7.08	5.68
1.5	0.53	0.52	0.54	0.75	0.94	0.93	-4.18	-4.16	-4.15	-4.30	9.95	8.08
2.0	0.74	0.73	0.76	1.05	1.24	1.24	-5.65	-5.62	-5.60	-0.03	12.5	10.2
2.5	0.95	0.95	0.98	1.35	1.54	1.54	-7.13	-7.09	-7.05	3.81	14.7	12.2
3.0	1.16	1.17	1.20	1.66	1.85	1.85	-8.61	-8.55	-8.51	7.12	16.7	14.0
3.5	1.38	1.39	1.42	1.96	2.15	2.15	-10.1	-10.0	-9.97	10.0	18.5	15.6
4.0	1.60	1.61	1.64	2.27	2.46	2.45	-11.6	-11.5	-11.4	12.5	20.1	17.1
4.5	1.82	1.83	1.86	2.57	2.76	2.76	-13.1	-13.0	-12.9	14.8	21.6	18.4
5.0	2.04	2.05	2.07	2.88	3.06	3.06	-14.5	-14.4	-14.4	16.8	22.9	19.7
5.5	2.26	2.27	2.29	3.18	3.37	3.36	-16.0	-15.9	-15.8	18.6	24.1	20.8
6.0	2.48	2.49	2.51	3.48	3.67	3.67	-17.5	-17.4	-17.3	20.2	25.2	21.9
6.5	2.70	2.71	2.73	3.79	3.97	3.97	-19.0	-18.9	-18.8	21.6	26.2	22.9
7.0	2.92	2.93	3.00	4.09	4.28	4.27	-20.5	-20.4	-15.9	23.0	27.2	23.8
7.5	3.14	3.15	3.30	4.39	4.58	4.57	-22.0	-21.9	-10.8	24.2	28.0	24.6
8.0	3.36	3.37	3.61	4.70	4.88	4.87	-23.5	-23.4	-6.32	25.3	28.8	25.4
8.5	3.58	3.59	3.91	5.00	5.43	5.42	-25.1	-24.9	-2.48	26.3	30.0	26.7
9.0	3.80	3.80	4.22	5.73	6.20	6.18	-26.6	-26.4	0.88	28.2	31.5	28.2
9.5	4.02	4.02	4.52	6.49	6.96	6.94	-28.1	-27.9	3.84	29.9	32.8	29.5
10.0	4.24	4.24	4.82	7.26	7.72	7.70	-29.6	-29.4	6.46	31.4	33.9	30.7
10.5	4.46	4.46	5.29	8.02	8.48	8.47	-31.2	-31.0	9.73	32.7	34.9	31.8
11.0	4.67	4.67	6.05	8.78	9.24	9.22	-32.7	-32.5	14.0	33.9	35.8	32.8
11.5	4.89	4.89	6.82	9.54	10.0	9.98	-34.2	-34.0	17.5	34.9	36.6	33.6
12.0	5.17	5.45	7.58	10.3	10.8	10.7	-36.1	-22.7	20.4	35.7	37.3	34.4
12.5	5.57	6.22	8.34	11.1	11.5	11.5	-38.8	-11.9	22.8	36.5	37.9	35.1
13.0	5.97	6.98	9.10	11.8	12.3	12.3	-41.5	-3.85	24.9	37.2	38.5	35.8
13.5	6.37	7.75	9.87	12.6	13.0	13.0	-44.2	2.37	26.7	37.9	39.0	36.4
14.0	6.76	8.51	10.6	13.3	13.8	13.8	-47.0	7.34	28.2	38.5	39.5	36.9
14.5	7.16	9.28	11.4	14.1	14.5	14.5	-49.7	11.4	29.6	39.0	39.9	37.4
15.0	7.93	10.0	12.1	14.8	15.3	15.3	-32.7	14.7	30.8	39.5	40.3	37.9
15.5	8.70	10.8	12.9	15.6	16.1	16.0	-20.7	17.6	31.9	39.9	40.7	38.3
16.0	9.46	11.6	13.7	16.4	16.8	16.8	-11.7	20.0	32.8	40.3	41.0	38.7
16.5	10.2	12.3	14.4	17.1	17.6	17.5	-4.71	22.1	33.7	40.7	41.3	39.1
17.0	11.0	13.1	15.2	17.9	18.3	18.3	0.88	23.9	34.5	41.0	41.6	39.4
17.5	11.8	13.8	15.9	18.6	19.1	19.0	5.44	25.5	35.2	41.3	41.9	39.7
18.0	12.5	14.6	16.7	19.4	19.8	19.8	9.24	26.9	35.9	41.6	42.2	40.0
18.5	13.3	15.4	17.4	20.1	20.6	20.6	12.5	28.2	36.4	41.9	42.4	40.3
19.0	14.0	16.1	18.2	20.9	21.4	21.3	15.2	29.3	37.0	42.2	42.6	40.6
19.5	14.8	16.9	19.0	21.7	22.1	22.1	17.6	30.3	37.5	42.4	42.9	40.9
20.0	15.6	17.6	19.7	22.5	22.9	22.9	19.7	31.3	37.9	42.7	43.1	41.1
20.5	16.3	18.4	20.5	23.2	23.7	23.7	21.5	32.1	38.4	42.9	43.3	41.3
21.0	17.1	19.1	21.3	24.0	24.5	24.4	23.1	32.9	38.8	43.1	43.4	41.6
21.5	17.8	19.9	22.0	24.8	25.3	25.2	24.5	33.6	39.2	43.3	43.6	41.8
22.0	18.6	20.7	22.8	25.6	26.0	26.0	25.8	34.2	39.5	43.4	43.8	41.9
22.5	19.3	21.5	23.6	26.4	26.8	26.8	27.0	34.8	39.9	43.6	43.9	42.1
23.0	20.1	22.2	24.4	27.1	27.6	27.6	28.1	35.4	40.2	43.8	44.0	42.3
23.5	20.9	23.0	25.2	27.9	28.4	28.3	29.1	35.9	40.5	43.9	44.2	42.5
24.0	21.7	23.8	25.9	28.7	29.2	29.1	30.0	36.4	40.7	44.0	44.3	42.6
24.5	22.5	24.6	26.7	29.5	29.9	29.9	30.8	36.9	41.0	44.2	44.4	42.8
25.0	23.2	25.4	27.5	30.3	30.7	30.7	31.6	37.3	41.2	44.3	44.5	42.9
25.5	24.0	26.2	28.3	31.1	31.5	31.5	32.3	37.7	41.4	44.4	44.6	43.0
26.0	24.8	26.9	29.1	31.9	32.3	32.3	32.9	38.1	41.7	44.5	44.7	43.1
26.5	25.6	27.7	29.9	32.6	33.1	33.1	33.5	38.4	41.9	44.6	44.8	43.3
27.0	26.4	28.5	30.7	33.4	33.9	33.9	34.1	38.7	42.0	44.7	44.9	43.4
27.5	27.2	29.3	31.4	34.2	34.7	34.7	34.6	39.0	42.2	44.8	45.0	43.5
28.0	27.9	30.1	32.2	35.0	35.5	35.5	35.1	39.3	42.4	44.9	45.0	43.6
28.5	28.7	30.9	33.0	35.8	36.3	36.3	35.5	39.6	42.5	45.0	45.1	43.7

MAMAKU ISENTHALPIC DATA (Average bulk pumice Type 1) Begue jpet)

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*	*DP*
29.0	29.5	31.7	33.8	36.6	37.1	37.1	36.0	39.8	42.7	45.0	45.2	43.8
29.5	30.3	32.5	34.6	37.5	37.9	37.9	36.4	40.1	42.8	45.1	45.2	43.8
30.0	31.1	33.3	35.4	38.3	38.7	38.7	36.7	40.3	43.0	45.2	45.3	43.9
30.5	31.9	34.1	36.2	39.1	39.6	39.5	37.1	40.5	43.1	45.2	45.4	44.0
31.0	32.7	34.9	37.0	39.9	40.4	40.3	37.4	40.7	43.2	45.3	45.4	44.1
31.5	33.5	35.7	37.9	40.7	41.2	41.2	37.7	40.9	43.3	45.4	45.5	44.1
32.0	34.3	36.5	38.7	41.6	42.1	42.0	38.0	41.1	43.4	45.4	45.5	44.2
32.5	35.1	37.3	39.5	42.4	42.9	42.9	38.3	41.2	43.5	45.5	45.6	44.3
33.0	35.9	38.1	40.3	43.3	43.8	43.7	38.6	41.4	43.6	45.5	45.6	44.3
33.5	36.7	38.9	41.2	44.1	44.6	44.6	38.8	41.6	43.7	45.6	45.6	44.4
34.0	37.5	39.7	42.0	45.0	45.6	45.6	39.0	41.7	43.8	45.6	45.7	44.5
34.5	38.4	40.6	42.9	46.1	46.7	46.6	39.3	41.8	43.9	45.7	45.8	44.6
35.0	39.2	41.4	43.7	47.1	47.7	47.7	39.5	42.0	44.0	45.8	45.8	44.6
35.5	40.0	42.3	44.6	48.2	48.8	48.7	39.7	42.1	44.0	45.8	45.9	44.7
36.0	40.8	43.1	45.6	49.2	49.8	49.7	39.9	42.2	44.1	45.9	46.0	44.8
36.5	41.7	44.0	46.6	50.2	50.8	50.8	40.1	42.3	44.2	45.9	46.0	44.9
37.0	42.5	44.8	47.7	51.3	51.8	51.8	40.2	42.5	44.3	46.0	46.0	44.9
37.5	43.4	45.9	48.7	52.3	52.8	52.8	40.4	42.6	44.4	46.0	46.1	45.0
38.0	44.2	46.9	49.7	53.3	53.8	53.8	40.6	42.7	44.5	46.1	46.1	45.0
38.5	45.1	48.0	50.8	54.2	54.8	54.7	40.7	42.9	44.6	46.1	46.1	45.1
39.0	46.2	49.0	51.8	55.2	55.8	55.7	40.9	43.0	44.7	46.1	46.2	45.1
39.5	47.3	50.1	52.8	56.2	56.7	56.6	41.1	43.1	44.7	46.1	46.2	45.1
40.0	48.3	51.1	53.8	57.1	57.6	57.6	41.3	43.2	44.8	46.2	46.2	45.2
40.5	49.4	52.1	54.7	58.0	58.6	58.5	41.4	43.3	44.8	46.2	46.2	45.2
41.0	50.4	53.1	55.7	59.0	59.5	59.4	41.6	43.4	44.9	46.2	46.2	45.2
41.5	51.4	54.1	56.7	59.9	60.3	60.3	41.7	43.5	44.9	46.2	46.2	45.2
42.0	52.4	55.1	57.6	60.7	61.2	61.1	41.9	43.6	45.0	46.2	46.2	45.2
42.5	53.4	56.0	58.5	61.6	62.1	62.0	42.0	43.6	45.0	46.2	46.2	45.2
43.0	54.4	57.0	59.4	62.4	62.9	62.8	42.1	43.7	45.0	46.2	46.2	45.2
43.5	55.4	57.9	60.3	63.3	63.7	63.7	42.2	43.8	45.0	46.2	46.2	45.2
44.0	56.3	58.8	61.2	64.1	64.5	64.4	42.3	43.8	45.1	46.2	46.2	45.2
44.5	57.3	59.7	62.1	64.9	65.3	65.2	42.4	43.8	45.1	46.1	46.1	45.2
45.0	58.2	60.6	62.9	65.6	66.1	66.0	42.4	43.9	45.1	46.1	46.1	45.2
45.5	59.1	61.5	63.7	66.4	66.8	66.7	42.5	43.9	45.1	46.1	46.1	45.1
46.0	60.0	62.3	64.5	67.1	67.5	67.5	42.6	43.9	45.1	46.0	46.0	45.1
46.5	60.9	63.2	65.3	67.8	68.2	68.2	42.6	44.0	45.0	46.0	46.0	45.1
47.0	61.8	64.0	66.1	68.5	68.9	68.8	42.7	44.0	45.0	46.0	45.9	45.0
47.5	62.6	64.8	66.8	69.2	69.6	69.5	42.7	44.0	45.0	45.9	45.9	45.0
48.0	63.5	65.6	67.5	69.9	70.2	70.1	42.8	44.0	45.0	45.9	45.8	44.9
48.5	64.3	66.3	68.2	70.5	70.8	70.8	42.8	44.0	44.9	45.8	45.8	44.9
49.0	65.1	67.1	68.9	71.1	71.4	71.4	42.8	43.9	44.9	45.7	45.7	44.8
49.5	65.9	67.8	69.6	71.7	72.0	71.9	42.8	43.9	44.9	45.7	45.6	44.8
50.0	66.6	68.5	70.2	72.3	72.6	72.5	42.8	43.9	44.8	45.6	45.6	44.7
50.5	67.4	69.2	70.9	72.8	73.1	73.0	42.8	43.9	44.8	45.5	45.5	44.6
51.0	68.1	69.8	71.5	73.4	73.6	73.6	42.8	43.8	44.7	45.5	45.4	44.5
51.5	68.8	70.5	72.0	73.9	74.1	74.1	42.8	43.8	44.6	45.4	45.3	44.5
52.0	69.4	71.1	72.6	74.4	74.6	74.5	42.8	43.7	44.6	45.3	45.2	44.4
52.5	70.1	71.7	73.2	74.8	75.1	75.0	42.7	43.7	44.5	45.2	45.2	44.3
53.0	70.7	72.3	73.7	75.3	75.5	75.5	42.7	43.6	44.4	45.1	45.1	44.2
53.5	71.3	72.8	74.2	75.7	76.0	75.9	42.7	43.6	44.4	45.0	45.0	44.1
54.0	71.9	73.4	74.7	76.2	76.4	76.3	42.6	43.5	44.3	44.9	44.9	44.0
54.5	72.5	73.9	75.1	76.6	76.8	76.7	42.6	43.4	44.2	44.8	44.8	43.9
55.0	73.1	74.4	75.6	77.0	77.2	77.1	42.5	43.4	44.1	44.7	44.7	43.8
55.5	73.6	74.9	76.0	77.4	77.5	77.5	42.5	43.3	44.0	44.6	44.5	43.7
56.0	74.1	75.4	76.5	77.7	77.9	77.8	42.4	43.2	43.9	44.5	44.4	43.6
56.5	74.6	75.8	76.9	78.1	78.3	78.2	42.3	43.1	43.8	44.4	44.3	43.5
57.0	75.1	76.2	77.3	78.4	78.6	78.5	42.2	43.0	43.7	44.3	44.2	43.3
57.5	75.6	76.7	77.6	78.8	78.9	78.9	42.2	42.9	43.6	44.1	44.1	43.2

MAMAKU ISENTHALPIC DATA (Average bulk pumice Type 1) Begue jpet)

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*	*DP*
58.0	76.0	77.1	78.0	79.1	79.2	79.2	42.1	42.8	43.5	44.0	44.0	43.1
58.5	76.4	77.4	78.3	79.4	79.5	79.5	42.0	42.7	43.4	43.9	43.8	43.0
59.0	76.9	77.8	78.7	79.7	79.8	79.8	41.9	42.6	43.3	43.8	43.7	42.8
59.5	77.3	78.2	79.0	80.0	80.1	80.0	41.8	42.5	43.1	43.6	43.6	42.7
60.0	77.6	78.5	79.3	80.3	80.4	80.3	41.7	42.4	43.0	43.5	43.4	42.6
60.5	78.0	78.9	79.6	80.5	80.6	80.6	41.6	42.3	42.9	43.4	43.3	42.5
61.0	78.4	79.2	79.9	80.8	80.9	80.8	41.5	42.2	42.8	43.2	43.2	42.3
61.5	78.7	79.5	80.2	81.0	81.1	81.1	41.4	42.0	42.6	43.1	43.0	42.2
62.0	79.1	79.8	80.5				41.2	41.9	42.5			
62.5	79.4	80.1	80.7				41.1	41.8	42.4			
63.0	79.7	80.4	81.0				41.0	41.7	42.2			
63.5	80.0	80.7	81.3				40.9	41.5	42.1			
64.0	80.3	80.9					40.8	41.4				
64.5	80.5	81.2					40.6	41.2				
65.0	80.8						40.5					
65.5	81.1						40.4					
66.0	81.3						40.2					

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*V*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	464.8	465.9	466.9	467.8	468.9	471.1
0.5	-0.09	-0.09	-0.10	-0.11	0.35	0.34	464.7	465.8	466.8	467.7	469.2	471.5
1.0	-0.20	-0.20	-0.21	-0.22	0.69	0.68	464.6	465.7	466.7	467.6	469.6	471.8
1.5	-0.31	-0.31	-0.32	-0.33	1.04	1.02	464.5	465.5	466.6	467.5	469.9	472.1
2.0	-0.42	-0.42	-0.43	0.00	1.38	1.36	464.4	465.4	466.5	467.8	470.3	472.5
2.5	-0.53	-0.53	-0.54	0.34	1.72	1.70	464.3	465.3	466.3	468.2	470.6	472.8
3.0	-0.64	-0.64	-0.65	0.69	2.06	2.04	464.2	465.2	466.2	468.5	470.9	473.2
3.5	-0.75	-0.75	-0.76	1.03	2.40	2.37	464.1	465.1	466.1	468.9	471.3	473.5
4.0	-0.86	-0.86	-0.87	1.37	2.73	2.70	464.0	465.0	466.0	469.2	471.6	473.8
4.5	-0.97	-0.97	-0.98	1.71	3.07	3.03	463.9	464.9	465.9	469.5	472.0	474.1
5.0	-1.08	-1.08	-1.09	2.05	3.40	3.36	463.7	464.8	465.8	469.9	472.3	474.5
5.5	-1.19	-1.19	-1.20	2.38	3.73	3.69	463.6	464.7	465.7	470.2	472.6	474.8
6.0	-1.29	-1.30	-1.31	2.72	4.06	4.01	463.5	464.6	465.6	470.6	472.9	475.1
6.5	-1.40	-1.41	-1.42	3.05	4.39	4.33	463.4	464.4	465.5	470.9	473.3	475.5
7.0	-1.51	-1.52	-1.27	3.38	4.71	4.66	463.3	464.3	465.6	471.2	473.6	475.8
7.5	-1.62	-1.63	-0.92	3.71	5.03	4.97	463.2	464.2	466.0	471.5	473.9	476.1
8.0	-1.73	-1.74	-0.58	4.03	5.35	5.29	463.1	464.1	466.3	471.9	474.2	476.4
8.5	-1.84	-1.85	-0.24	4.35	5.90	5.83	463.0	464.0	466.6	472.2	474.8	476.9
9.0	-1.95	-1.96	0.09	5.06	6.63	6.56	462.9	463.9	467.0	472.9	475.5	477.7
9.5	-2.06	-2.07	0.43	5.80	7.37	7.29	462.8	463.8	467.3	473.6	476.3	478.4
10.0	-2.17	-2.18	0.76	6.53	8.10	8.02	462.7	463.7	467.6	474.4	477.0	479.1
10.5	-2.28	-2.29	1.23	7.27	8.82	8.75	462.5	463.6	468.1	475.1	477.7	479.9
11.0	-2.38	-2.40	1.97	7.99	9.55	9.47	462.4	463.5	468.9	475.8	478.4	480.6
11.5	-2.49	-2.51	2.71	8.72	10.3	10.2	462.3	463.3	469.6	476.6	479.2	481.3
12.0	-2.63	-1.93	3.45	9.44	11.0	10.9	462.2	463.9	470.3	477.3	479.9	482.0
12.5	-2.82	-1.18	4.18	10.2	11.7	11.6	462.0	464.7	471.1	478.0	480.6	482.7
13.0	-3.01	-0.44	4.91	10.9	12.4	12.3	461.8	465.4	471.8	478.7	481.3	483.4
13.5	-3.20	0.30	5.64	11.6	13.1	13.0	461.6	466.2	472.5	479.4	482.0	484.2
14.0	-3.39	1.04	6.37	12.3	13.8	13.7	461.4	466.9	473.3	480.1	482.7	484.9
14.5	-3.57	1.78	7.09	13.0	14.5	14.4	461.2	467.6	474.0	480.8	483.4	485.6
15.0	-2.82	2.51	7.81	13.7	15.2	15.1	462.0	468.4	474.7	481.6	484.1	486.3
15.5	-2.08	3.24	8.53	14.4	15.9	15.8	462.7	469.1	475.4	482.3	484.8	487.0
16.0	-1.34	3.96	9.24	15.1	16.6	16.5	463.5	469.8	476.1	483.0	485.5	487.7
16.5	-0.61	4.69	9.96	15.8	17.3	17.2	464.2	470.5	476.8	483.7	486.2	488.3
17.0	0.13	5.41	10.7	16.5	18.0	17.9	464.9	471.3	477.6	484.3	486.9	489.0
17.5	0.86	6.13	11.4	17.2	18.7	18.6	465.7	472.0	478.3	485.0	487.6	489.7
18.0	1.58	6.84	12.1	17.9	19.4	19.3	466.4	472.7	479.0	485.7	488.3	490.4
18.5	2.31	7.55	12.8	18.6	20.1	20.0	467.1	473.4	479.7	486.4	489.0	491.1
19.0	3.03	8.26	13.5	19.3	20.8	20.7	467.8	474.1	480.4	487.1	489.7	491.8
19.5	3.75	8.97	14.2	20.0	21.5	21.4	468.6	474.8	481.0	487.8	490.4	492.5
20.0	4.46	9.67	14.8	20.7	22.2	22.1	469.3	475.5	481.7	488.5	491.1	493.2
20.5	5.17	10.4	15.6	21.4	22.9	22.8	470.0	476.2	482.4	489.2	491.8	493.9
21.0	5.88	11.1	16.3	22.1	23.6	23.4	470.7	476.9	483.1	489.9	492.5	494.6
21.5	6.59	11.8	17.0	22.8	24.3	24.1	471.4	477.6	483.9	490.6	493.1	495.2
22.0	7.29	12.5	17.7	23.5	24.9	24.8	472.1	478.3	484.6	491.3	493.8	495.9
22.5	7.99	13.2	18.4	24.1	25.6	25.5	472.8	479.0	485.3	492.0	494.5	496.6
23.0	8.70	13.9	19.1	24.8	26.3	26.2	473.5	479.8	486.0	492.7	495.2	497.3
23.5	9.42	14.6	19.8	25.5	27.0	26.9	474.2	480.5	486.6	493.3	495.9	498.0
24.0	10.1	15.3	20.5	26.2	27.7	27.5	475.0	481.2	487.3	494.0	496.5	498.6
24.5	10.8	16.0	21.1	26.9	28.3	28.2	475.7	481.9	488.0	494.7	497.2	499.3
25.0	11.6	16.7	21.8	27.5	29.0	28.9	476.4	482.6	488.7	495.4	497.9	500.0
25.5	12.3	17.4	22.5	28.2	29.7	29.5	477.1	483.3	489.4	496.0	498.6	500.6
26.0	13.0	18.1	23.2	28.9	30.3	30.2	477.8	483.9	490.1	496.7	499.2	501.3
26.5	13.7	18.8	23.9	29.5	31.0	30.9	478.5	484.6	490.8	497.4	499.9	502.0
27.0	14.4	19.5	24.6	30.2	31.7	31.5	479.2	485.3	491.4	498.0	500.6	502.6
27.5	15.1	20.2	25.2	30.9	32.3	32.2	479.9	486.0	492.1	498.7	501.2	503.3
28.0	15.8	20.8	25.9	31.5	33.0	32.8	480.6	486.7	492.8	499.4	501.9	504.0
28.5	16.4	21.5	26.6	32.2	33.6	33.5	481.3	487.4	493.5	500.0	502.5	504.6

ISENTHALPIC MASTER SHEET 9

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*V*
29.0	17.1	22.2	27.2	32.9	34.3	34.1	482.0	488.1	494.1	500.7	503.2	505.3
29.5	17.8	22.9	27.9	33.5	35.0	34.8	482.6	488.7	494.8	501.4	503.8	505.9
30.0	18.5	23.6	28.6	34.2	35.6	35.5	483.3	489.4	495.5	502.0	504.5	506.6
30.5	19.2	24.2	29.2	34.8	36.3	36.1	484.0	490.1	496.1	502.7	505.2	507.2
31.0	19.9	24.9	29.9	35.5	36.9	36.8	484.7	490.8	496.8	503.3	505.8	507.9
31.5	20.5	25.6	30.6	36.2	37.6	37.4	485.4	491.4	497.5	504.0	506.5	508.5
32.0	21.2	26.2	31.2	36.8	38.2	38.1	486.0	492.1	498.1	504.6	507.1	509.2
32.5	21.9	26.9	31.9	37.5	38.9	38.7	486.7	492.8	498.8	505.3	507.8	509.8
33.0	22.6	27.6	32.6	38.1	39.5	39.4	487.4	493.4	499.4	506.0	508.4	510.5
33.5	23.2	28.2	33.2	38.8	40.2	40.0	488.1	494.1	500.1	506.6	509.1	511.1
34.0	23.9	28.9	33.9	39.5	41.0	40.8	488.7	494.8	500.8	507.3	509.9	511.9
34.5	24.6	29.6	34.5	40.3	41.8	41.6	489.4	495.4	501.4	508.1	510.6	512.7
35.0	25.3	30.2	35.2	41.1	42.5	42.4	490.1	496.1	502.1	508.9	511.4	513.5
35.5	25.9	30.9	35.9	41.8	43.3	43.1	490.7	496.8	502.7	509.7	512.2	514.3
36.0	26.6	31.6	36.6	42.6	44.1	43.9	491.4	497.4	503.5	510.4	513.0	515.0
36.5	27.3	32.2	37.4	43.4	44.8	44.6	492.1	498.1	504.3	511.2	513.7	515.8
37.0	27.9	32.9	38.2	44.1	45.6	45.4	492.8	498.8	505.1	511.9	514.4	516.5
37.5	28.6	33.7	39.0	44.8	46.3	46.1	493.4	499.5	505.9	512.7	515.2	517.2
38.0	29.3	34.5	39.7	45.5	47.0	46.8	494.1	500.3	506.6	513.4	515.9	517.9
38.5	30.0	35.3	40.5	46.3	47.7	47.5	494.8	501.1	507.4	514.1	516.6	518.6
39.0	30.8	36.0	41.2	46.9	48.4	48.2	495.6	501.9	508.1	514.8	517.2	519.3
39.5	31.6	36.8	42.0	47.6	49.0	48.8	496.4	502.7	508.8	515.4	517.9	519.9
40.0	32.4	37.6	42.7	48.3	49.7	49.5	497.2	503.4	509.6	516.1	518.5	520.6
40.5	33.1	38.3	43.4	48.9	50.3	50.1	497.9	504.2	510.3	516.7	519.2	521.2
41.0	33.9	39.0	44.1	49.5	50.9	50.7	498.7	504.9	510.9	517.4	519.8	521.8
41.5	34.6	39.7	44.7	50.1	51.5	51.3	499.5	505.6	511.6	518.0	520.4	522.4
42.0	35.4	40.4	45.4	50.7	52.0	51.8	500.2	506.3	512.3	518.5	520.9	523.0
42.5	36.1	41.1	46.0	51.3	52.6	52.4	500.9	507.0	512.9	519.1	521.5	523.5
43.0	36.8	41.8	46.6	51.8	53.1	52.9	501.6	507.6	513.5	519.6	522.0	524.0
43.5	37.5	42.4	47.2	52.3	53.6	53.4	502.3	508.3	514.1	520.2	522.5	524.5
44.0	38.2	43.1	47.8	52.8	54.1	53.9	503.0	508.9	514.7	520.6	523.0	525.0
44.5	38.9	43.7	48.3	53.3	54.6	54.4	503.7	509.5	515.2	521.1	523.4	525.5
45.0	39.5	44.3	48.9	53.7	55.0	54.8	504.3	510.1	515.8	521.6	523.9	525.9
45.5	40.1	44.8	49.4	54.2	55.4	55.2	505.0	510.7	516.3	522.0	524.3	526.3
46.0	40.7	45.4	49.9	54.6	55.8	55.6	505.6	511.2	516.8	522.4	524.7	526.7
46.5	41.3	45.9	50.3	54.9	56.1	55.9	506.2	511.8	517.2	522.8	525.0	527.1
47.0	41.9	46.4	50.8	55.3	56.5	56.3	506.7	512.3	517.7	523.1	525.4	527.4
47.5	42.5	46.9	51.2	55.6	56.8	56.6	507.3	512.8	518.1	523.5	525.7	527.7
48.0	43.0	47.4	51.6	55.9	57.1	56.9	507.8	513.2	518.5	523.8	526.0	528.0
48.5	43.5	47.8	52.0	56.2	57.4	57.2	508.3	513.7	518.9	524.1	526.2	528.3
49.0	44.0	48.2	52.3	56.5	57.6	57.4	508.8	514.1	519.2	524.3	526.5	528.5
49.5	44.4	48.6	52.7	56.7	57.8	57.6	509.3	514.5	519.5	524.6	526.7	528.7
50.0	44.9	49.0	53.0	56.9	58.0	57.8	509.7	514.9	519.8	524.8	526.9	528.9
50.5	45.3	49.4	53.2	57.1	58.2	58.0	510.1	515.2	520.1	525.0	527.1	529.1
51.0	45.7	49.7	53.5	57.3	58.3	58.1	510.5	515.6	520.4	525.1	527.2	529.2
51.5	46.1	50.0	53.7	57.4	58.5	58.3	510.9	515.9	520.6	525.3	527.4	529.4
52.0	46.4	50.3	53.9	57.6	58.6	58.4	511.2	516.1	520.8	525.4	527.5	529.5
52.5	46.7	50.5	54.1	57.7	58.7	58.4	511.6	516.4	521.0	525.5	527.6	529.6
53.0	47.0	50.8	54.3	57.8	58.7	58.5	511.9	516.6	521.2	525.6	527.6	529.6
53.5	47.3	51.0	54.4	57.8	58.8	58.6	512.1	516.8	521.3	525.6	527.7	529.7
54.0	47.6	51.2	54.5	57.9	58.8	58.6	512.4	517.0	521.4	525.7	527.7	529.7
54.5	47.8	51.3	54.6	57.9	58.8	58.6	512.6	517.2	521.5	525.7	527.7	529.7
55.0	48.0	51.5	54.7	57.9	58.8	58.6	512.8	517.3	521.6	525.7	527.7	529.7
55.5	48.2	51.6	54.8	57.9	58.8	58.6	513.0	517.4	521.7	525.7	527.7	529.7
56.0	48.4	51.7	54.8	57.9	58.8	58.5	513.2	517.5	521.7	525.7	527.6	529.6
56.5	48.5	51.8	54.9	57.8	58.7	58.5	513.3	517.6	521.7	525.7	527.6	529.6
57.0	48.6	51.8	54.9	57.8	58.6	58.4	513.5	517.7	521.7	525.6	527.5	529.5
57.5	48.7	51.9	54.9	57.7	58.6	58.3	513.6	517.7	521.7	525.5	527.4	529.4

ISENTHALPIC MASTER SHEET 9

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*V*
58.0	48.8	51.9	54.8	57.6	58.5	58.2	513.6	517.8	521.7	525.4	527.3	529.3
58.5	48.9	51.9	54.8	57.5	58.4	58.1	513.7	517.8	521.7	525.3	527.2	529.2
59.0	48.9	51.9	54.7	57.4	58.2	58.0	513.8	517.8	521.6	525.2	527.1	529.1
59.5	49.0	51.9	54.7	57.3	58.1	57.8	513.8	517.7	521.5	525.1	527.0	528.9
60.0	49.0	51.9	54.6	57.1	58.0	57.7	513.8	517.7	521.5	525.0	526.8	528.8
60.5	49.0	51.8	54.5	57.0	57.8	57.5	513.8	517.7	521.4	524.8	526.7	528.6
61.0	49.0	51.7	54.4	56.8	57.6	57.3	513.8	517.6	521.3	524.7	526.5	528.5
61.5	48.9	51.7	54.3	56.7	57.4	57.2	513.8	517.5	521.1	524.5	526.3	528.3
62.0	48.9	51.6	54.1				513.7	517.4	521.0			
62.5	48.8	51.5	54.0				513.6	517.3	520.9			
63.0	48.7	51.3	53.8				513.6	517.2	520.7			
63.5	48.7	51.2	53.7				513.5	517.1	520.6			
64.0	48.6	51.1					513.4	516.9				
64.5	48.5	50.9					513.3	516.8				
65.0	48.3						513.2					
65.5	48.2						513.0					
66.0	48.1						512.9					

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
0.0	1.6E-05	1.6E-05	1.6E-05	1.7E-05	1.8E-05	2.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-03	6.1E-03
0.5	1.6E-05	1.6E-05	1.6E-05	1.7E-05	1.9E-05	2.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.8E-03	7.5E-03
1.0	1.6E-05	1.6E-05	1.6E-05	1.7E-05	2.1E-05	2.6E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-03	8.9E-03
1.5	1.6E-05	1.6E-05	1.6E-05	1.7E-05	2.2E-05	2.7E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.5E-03	1.0E-02
2.0	1.6E-05	1.6E-05	1.6E-05	1.8E-05	2.3E-05	2.8E-05	0.0E+00	0.0E+00	0.0E+00	1.3E-03	6.9E-03	1.2E-02
2.5	1.6E-05	1.6E-05	1.6E-05	1.9E-05	2.5E-05	3.0E-05	0.0E+00	0.0E+00	0.0E+00	2.7E-03	8.3E-03	1.3E-02
3.0	1.6E-05	1.6E-05	1.6E-05	2.1E-05	2.6E-05	3.1E-05	0.0E+00	0.0E+00	0.0E+00	4.1E-03	9.7E-03	1.4E-02
3.5	1.6E-05	1.6E-05	1.6E-05	2.2E-05	2.7E-05	3.2E-05	0.0E+00	0.0E+00	0.0E+00	5.5E-03	1.1E-02	1.6E-02
4.0	1.6E-05	1.6E-05	1.6E-05	2.3E-05	2.9E-05	3.3E-05	0.0E+00	0.0E+00	0.0E+00	6.9E-03	1.2E-02	1.7E-02
4.5	1.6E-05	1.6E-05	1.6E-05	2.5E-05	3.0E-05	3.5E-05	0.0E+00	0.0E+00	0.0E+00	8.3E-03	1.4E-02	1.8E-02
5.0	1.6E-05	1.6E-05	1.6E-05	2.6E-05	3.1E-05	3.6E-05	0.0E+00	0.0E+00	0.0E+00	9.6E-03	1.5E-02	2.0E-02
5.5	1.6E-05	1.6E-05	1.6E-05	2.7E-05	3.3E-05	3.7E-05	0.0E+00	0.0E+00	0.0E+00	1.1E-02	1.6E-02	2.1E-02
6.0	1.6E-05	1.6E-05	1.6E-05	2.9E-05	3.4E-05	3.9E-05	0.0E+00	0.0E+00	0.0E+00	1.2E-02	1.8E-02	2.2E-02
6.5	1.6E-05	1.6E-05	1.6E-05	3.0E-05	3.5E-05	4.0E-05	0.0E+00	0.0E+00	0.0E+00	1.4E-02	1.9E-02	2.4E-02
7.0	1.6E-05	1.6E-05	1.7E-05	3.1E-05	3.7E-05	4.1E-05	0.0E+00	0.0E+00	8.2E-04	1.5E-02	2.0E-02	2.5E-02
7.5	1.6E-05	1.6E-05	1.8E-05	3.3E-05	3.8E-05	4.2E-05	0.0E+00	0.0E+00	2.2E-03	1.6E-02	2.2E-02	2.6E-02
8.0	1.6E-05	1.6E-05	2.0E-05	3.4E-05	3.9E-05	4.4E-05	0.0E+00	0.0E+00	3.6E-03	1.8E-02	2.3E-02	2.7E-02
8.5	1.6E-05	1.6E-05	2.1E-05	3.5E-05	4.1E-05	4.6E-05	0.0E+00	0.0E+00	5.0E-03	1.9E-02	2.5E-02	3.0E-02
9.0	1.6E-05	1.6E-05	2.2E-05	3.8E-05	4.4E-05	4.9E-05	0.0E+00	0.0E+00	6.4E-03	2.2E-02	2.8E-02	3.3E-02
9.5	1.6E-05	1.6E-05	2.4E-05	4.1E-05	4.7E-05	5.2E-05	0.0E+00	0.0E+00	7.7E-03	2.5E-02	3.1E-02	3.5E-02
10.0	1.6E-05	1.6E-05	2.5E-05	4.4E-05	5.0E-05	5.4E-05	0.0E+00	0.0E+00	9.1E-03	2.8E-02	3.4E-02	3.8E-02
10.5	1.6E-05	1.6E-05	2.7E-05	4.7E-05	5.3E-05	5.7E-05	0.0E+00	0.0E+00	1.1E-02	3.1E-02	3.7E-02	4.1E-02
11.0	1.6E-05	1.6E-05	3.0E-05	5.0E-05	5.6E-05	6.0E-05	0.0E+00	0.0E+00	1.4E-02	3.4E-02	4.0E-02	4.4E-02
11.5	1.6E-05	1.6E-05	3.3E-05	5.3E-05	5.9E-05	6.3E-05	0.0E+00	0.0E+00	1.7E-02	3.7E-02	4.3E-02	4.7E-02
12.0	1.6E-05	1.8E-05	3.6E-05	5.5E-05	6.1E-05	6.6E-05	0.0E+00	2.4E-03	2.0E-02	4.0E-02	4.6E-02	5.0E-02
12.5	1.6E-05	2.1E-05	3.9E-05	5.8E-05	6.4E-05	6.9E-05	0.0E+00	5.5E-03	2.3E-02	4.3E-02	4.9E-02	5.3E-02
13.0	1.6E-05	2.4E-05	4.2E-05	6.1E-05	6.7E-05	7.1E-05	0.0E+00	8.6E-03	2.6E-02	4.5E-02	5.1E-02	5.6E-02
13.5	1.6E-05	2.7E-05	4.5E-05	6.4E-05	7.0E-05	7.4E-05	0.0E+00	1.2E-02	2.9E-02	4.8E-02	5.4E-02	5.8E-02
14.0	1.6E-05	3.0E-05	4.8E-05	6.7E-05	7.3E-05	7.7E-05	0.0E+00	1.5E-02	3.2E-02	5.1E-02	5.7E-02	6.1E-02
14.5	1.6E-05	3.3E-05	5.1E-05	6.9E-05	7.5E-05	8.0E-05	0.0E+00	1.8E-02	3.5E-02	5.4E-02	6.0E-02	6.4E-02
15.0	1.9E-05	3.6E-05	5.3E-05	7.2E-05	7.8E-05	8.2E-05	3.2E-03	2.1E-02	3.8E-02	5.7E-02	6.3E-02	6.7E-02
15.5	2.2E-05	3.9E-05	5.6E-05	7.5E-05	8.1E-05	8.5E-05	6.3E-03	2.4E-02	4.1E-02	6.0E-02	6.6E-02	7.0E-02
16.0	2.5E-05	4.2E-05	5.9E-05	7.8E-05	8.4E-05	8.8E-05	9.4E-03	2.7E-02	4.4E-02	6.2E-02	6.8E-02	7.2E-02
16.5	2.8E-05	4.5E-05	6.2E-05	8.0E-05	8.6E-05	9.0E-05	1.2E-02	3.0E-02	4.7E-02	6.5E-02	7.1E-02	7.5E-02
17.0	3.1E-05	4.8E-05	6.5E-05	8.3E-05	8.9E-05	9.3E-05	1.6E-02	3.3E-02	5.0E-02	6.8E-02	7.4E-02	7.8E-02
17.5	3.4E-05	5.1E-05	6.8E-05	8.6E-05	9.2E-05	9.6E-05	1.9E-02	3.6E-02	5.2E-02	7.1E-02	7.6E-02	8.0E-02
18.0	3.7E-05	5.4E-05	7.0E-05	8.8E-05	9.4E-05	9.8E-05	2.2E-02	3.9E-02	5.5E-02	7.3E-02	7.9E-02	8.3E-02
18.5	4.0E-05	5.7E-05	7.3E-05	9.1E-05	9.7E-05	1.0E-04	2.5E-02	4.2E-02	5.8E-02	7.6E-02	8.2E-02	8.6E-02
19.0	4.3E-05	5.9E-05	7.6E-05	9.4E-05	1.0E-04	1.0E-04	2.8E-02	4.4E-02	6.1E-02	7.9E-02	8.5E-02	8.9E-02
19.5	4.5E-05	6.2E-05	7.9E-05	9.7E-05	1.0E-04	1.1E-04	3.1E-02	4.7E-02	6.4E-02	8.2E-02	8.7E-02	9.1E-02
20.0	4.8E-05	6.5E-05	8.1E-05	9.9E-05	1.0E-04	1.1E-04	3.4E-02	5.0E-02	6.6E-02	8.4E-02	9.0E-02	9.4E-02
20.5	5.1E-05	6.8E-05	8.4E-05	1.0E-04	1.1E-04	1.1E-04	3.6E-02	5.3E-02	6.9E-02	8.7E-02	9.3E-02	9.7E-02
21.0	5.4E-05	7.1E-05	8.7E-05	1.0E-04	1.1E-04	1.1E-04	3.9E-02	5.6E-02	7.2E-02	9.0E-02	9.5E-02	9.9E-02
21.5	5.7E-05	7.3E-05	8.9E-05	1.1E-04	1.1E-04	1.2E-04	4.2E-02	5.9E-02	7.5E-02	9.3E-02	9.8E-02	0.10
22.0	6.0E-05	7.6E-05	9.2E-05	1.1E-04	1.2E-04	1.2E-04	4.5E-02	6.2E-02	7.8E-02	9.5E-02	0.10	0.10
22.5	6.3E-05	7.9E-05	9.5E-05	1.1E-04	1.2E-04	1.2E-04	4.8E-02	6.4E-02	8.0E-02	9.8E-02	0.10	0.11
23.0	6.5E-05	8.2E-05	9.8E-05	1.2E-04	1.2E-04	1.2E-04	5.1E-02	6.7E-02	8.3E-02	0.10	0.11	0.11
23.5	6.8E-05	8.5E-05	1.0E-04	1.2E-04	1.2E-04	1.3E-04	5.4E-02	7.0E-02	8.6E-02	0.10	0.11	0.11
24.0	7.1E-05	8.7E-05	1.0E-04	1.2E-04	1.3E-04	1.3E-04	5.7E-02	7.3E-02	8.9E-02	0.11	0.11	0.12
24.5	7.4E-05	9.0E-05	1.1E-04	1.2E-04	1.3E-04	1.3E-04	6.0E-02	7.6E-02	9.1E-02	0.11	0.11	0.12
25.0	7.7E-05	9.3E-05	1.1E-04	1.3E-04	1.3E-04	1.3E-04	6.2E-02	7.9E-02	9.4E-02	0.11	0.12	0.12
25.5	8.0E-05	9.6E-05	1.1E-04	1.3E-04	1.3E-04	1.4E-04	6.5E-02	8.1E-02	9.7E-02	0.11	0.12	0.12
26.0	8.2E-05	9.8E-05	1.1E-04	1.3E-04	1.4E-04	1.4E-04	6.8E-02	8.4E-02	9.9E-02	0.12	0.12	0.13
26.5	8.5E-05	1.0E-04	1.2E-04	1.3E-04	1.4E-04	1.4E-04	7.1E-02	8.7E-02	0.10	0.12	0.12	0.13
27.0	8.8E-05	1.0E-04	1.2E-04	1.4E-04	1.4E-04	1.4E-04	7.4E-02	9.0E-02	0.10	0.12	0.13	0.13
27.5	9.1E-05	1.1E-04	1.2E-04	1.4E-04	1.4E-04	1.5E-04	7.7E-02	9.2E-02	0.11	0.12	0.13	0.13
28.0	9.3E-05	1.1E-04	1.2E-04	1.4E-04	1.5E-04	1.5E-04	7.9E-02	9.5E-02	0.11	0.13	0.13	0.14
28.5	9.6E-05	1.1E-04	1.3E-04	1.4E-04	1.5E-04	1.5E-04	8.2E-02	9.8E-02	0.11	0.13	0.13	0.14

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
29.0	9.9E-05	1.1E-04	1.3E-04	1.5E-04	1.5E-04	1.5E-04	8.5E-02	0.10	0.12	0.13	0.14	0.14
29.5	1.0E-04	1.2E-04	1.3E-04	1.5E-04	1.5E-04	1.6E-04	8.8E-02	0.10	0.12	0.13	0.14	0.14
30.0	1.0E-04	1.2E-04	1.3E-04	1.5E-04	1.6E-04	1.6E-04	9.0E-02	0.11	0.12	0.14	0.14	0.15
30.5	1.1E-04	1.2E-04	1.4E-04	1.5E-04	1.6E-04	1.6E-04	9.3E-02	0.11	0.12	0.14	0.14	0.15
31.0	1.1E-04	1.2E-04	1.4E-04	1.6E-04	1.6E-04	1.6E-04	9.6E-02	0.11	0.13	0.14	0.15	0.15
31.5	1.1E-04	1.3E-04	1.4E-04	1.6E-04	1.6E-04	1.7E-04	9.9E-02	0.11	0.13	0.14	0.15	0.15
32.0	1.1E-04	1.3E-04	1.4E-04	1.6E-04	1.7E-04	1.7E-04	0.10	0.12	0.13	0.15	0.15	0.16
32.5	1.2E-04	1.3E-04	1.5E-04	1.6E-04	1.7E-04	1.7E-04	0.10	0.12	0.13	0.15	0.15	0.16
33.0	1.2E-04	1.3E-04	1.5E-04	1.7E-04	1.7E-04	1.7E-04	0.11	0.12	0.14	0.15	0.16	0.16
33.5	1.2E-04	1.4E-04	1.5E-04	1.7E-04	1.7E-04	1.8E-04	0.11	0.12	0.14	0.15	0.16	0.16
34.0	1.3E-04	1.4E-04	1.5E-04	1.7E-04	1.8E-04	1.8E-04	0.11	0.13	0.14	0.16	0.16	0.17
34.5	1.3E-04	1.4E-04	1.6E-04	1.7E-04	1.8E-04	1.8E-04	0.11	0.13	0.14	0.16	0.17	0.17
35.0	1.3E-04	1.5E-04	1.6E-04	1.8E-04	1.8E-04	1.8E-04	0.12	0.13	0.15	0.16	0.17	0.17
35.5	1.3E-04	1.5E-04	1.6E-04	1.8E-04	1.8E-04	1.9E-04	0.12	0.13	0.15	0.17	0.17	0.17
36.0	1.4E-04	1.5E-04	1.6E-04	1.8E-04	1.9E-04	1.9E-04	0.12	0.14	0.15	0.17	0.17	0.18
36.5	1.4E-04	1.5E-04	1.7E-04	1.8E-04	1.9E-04	1.9E-04	0.13	0.14	0.15	0.17	0.18	0.18
37.0	1.4E-04	1.6E-04	1.7E-04	1.9E-04	1.9E-04	2.0E-04	0.13	0.14	0.16	0.17	0.18	0.18
37.5	1.4E-04	1.6E-04	1.7E-04	1.9E-04	1.9E-04	2.0E-04	0.13	0.15	0.16	0.18	0.18	0.19
38.0	1.5E-04	1.6E-04	1.8E-04	1.9E-04	2.0E-04	2.0E-04	0.13	0.15	0.16	0.18	0.18	0.19
38.5	1.5E-04	1.6E-04	1.8E-04	2.0E-04	2.0E-04	2.0E-04	0.14	0.15	0.17	0.18	0.19	0.19
39.0	1.5E-04	1.7E-04	1.8E-04	2.0E-04	2.0E-04	2.1E-04	0.14	0.15	0.17	0.18	0.19	0.19
39.5	1.5E-04	1.7E-04	1.8E-04	2.0E-04	2.0E-04	2.1E-04	0.14	0.16	0.17	0.19	0.19	0.20
40.0	1.6E-04	1.7E-04	1.9E-04	2.0E-04	2.1E-04	2.1E-04	0.14	0.16	0.17	0.19	0.19	0.20
40.5	1.6E-04	1.8E-04	1.9E-04	2.0E-04	2.1E-04	2.1E-04	0.15	0.16	0.18	0.19	0.20	0.20
41.0	1.6E-04	1.8E-04	1.9E-04	2.1E-04	2.1E-04	2.1E-04	0.15	0.17	0.18	0.19	0.20	0.20
41.5	1.7E-04	1.8E-04	1.9E-04	2.1E-04	2.1E-04	2.2E-04	0.15	0.17	0.18	0.20	0.20	0.20
42.0	1.7E-04	1.8E-04	2.0E-04	2.1E-04	2.2E-04	2.2E-04	0.16	0.17	0.18	0.20	0.20	0.21
42.5	1.7E-04	1.9E-04	2.0E-04	2.1E-04	2.2E-04	2.2E-04	0.16	0.17	0.19	0.20	0.21	0.21
43.0	1.7E-04	1.9E-04	2.0E-04	2.2E-04	2.2E-04	2.2E-04	0.16	0.18	0.19	0.20	0.21	0.21
43.5	1.8E-04	1.9E-04	2.0E-04	2.2E-04	2.2E-04	2.3E-04	0.16	0.18	0.19	0.21	0.21	0.21
44.0	1.8E-04	1.9E-04	2.1E-04	2.2E-04	2.2E-04	2.3E-04	0.17	0.18	0.19	0.21	0.21	0.21
44.5	1.8E-04	2.0E-04	2.1E-04	2.2E-04	2.3E-04	2.3E-04	0.17	0.18	0.20	0.21	0.21	0.22
45.0	1.8E-04	2.0E-04	2.1E-04	2.2E-04	2.3E-04	2.3E-04	0.17	0.19	0.20	0.21	0.22	0.22
45.5	1.9E-04	2.0E-04	2.1E-04	2.3E-04	2.3E-04	2.3E-04	0.17	0.19	0.20	0.21	0.22	0.22
46.0	1.9E-04	2.0E-04	2.1E-04	2.3E-04	2.3E-04	2.3E-04	0.18	0.19	0.20	0.21	0.22	0.22
46.5	1.9E-04	2.0E-04	2.2E-04	2.3E-04	2.3E-04	2.4E-04	0.18	0.19	0.20	0.22	0.22	0.22
47.0	1.9E-04	2.1E-04	2.2E-04	2.3E-04	2.3E-04	2.4E-04	0.18	0.19	0.21	0.22	0.22	0.22
47.5	2.0E-04	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	0.18	0.20	0.21	0.22	0.22	0.23
48.0	2.0E-04	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	0.19	0.20	0.21	0.22	0.22	0.23
48.5	2.0E-04	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	0.19	0.20	0.21	0.22	0.23	0.23
49.0	2.0E-04	2.1E-04	2.2E-04	2.4E-04	2.4E-04	2.4E-04	0.19	0.20	0.21	0.22	0.23	0.23
49.5	2.0E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.4E-04	0.19	0.20	0.21	0.22	0.23	0.23
50.0	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.4E-04	0.19	0.20	0.22	0.23	0.23	0.23
50.5	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.23
51.0	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.23
51.5	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.24
52.0	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.24
52.5	2.1E-04	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.24
53.0	2.2E-04	2.3E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	0.20	0.21	0.22	0.23	0.23	0.24
53.5	2.2E-04	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	0.20	0.21	0.22	0.23	0.24	0.24
54.0	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.22	0.23	0.24	0.24
54.5	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.23	0.24	0.24
55.0	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.23	0.24	0.24
55.5	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.23	0.24	0.24
56.0	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.24	0.24	0.24
56.5	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.24	0.24	0.24
57.0	2.2E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.24	0.24	0.24
57.5	2.3E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04	0.21	0.22	0.23	0.24	0.24	0.24

MAMAKU

	3.5	3.6	3.7	3.8	3.85	3.9	3.5	3.6	3.7	3.8	3.85	3.9
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
58.0	2.3E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.21	0.22	0.23	0.24	0.24	0.24
58.5	2.3E-04	2.3E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.22	0.23	0.24	0.24	0.24
59.0	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.22	0.23	0.24	0.24	0.24
59.5	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.22	0.23	0.24	0.24	0.24
60.0	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.22	0.23	0.24	0.24	0.24
60.5	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.22	0.23	0.24	0.24	0.24
61.0	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.23	0.23	0.24	0.24	0.24
61.5	2.3E-04	2.4E-04	2.4E-04	2.5E-04	2.5E-04	2.6E-04	0.22	0.23	0.23	0.24	0.24	0.24
62.0	2.3E-04	2.4E-04	2.4E-04				0.22	0.23	0.23			
62.5	2.3E-04	2.4E-04	2.4E-04				0.22	0.23	0.23			
63.0	2.3E-04	2.4E-04	2.4E-04				0.22	0.23	0.23			
63.5	2.3E-04	2.4E-04	2.4E-04				0.22	0.23	0.23			
64.0	2.3E-04	2.4E-04					0.22	0.23				
64.5	2.3E-04	2.4E-04					0.22	0.23				
65.0	2.3E-04						0.22					
65.5	2.3E-04						0.22					
66.0	2.3E-04						0.22					

EBT WR ISENTHALPIC DATA

	4.63 wt% H2O	4.73 wt% H2O	4.83 wt% H2O	4.93 wt% H2O	5.03 wt% H2O	5.13 wt% H2O	4.63	4.73	4.83	4.93	5.03
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*
0.0	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.23	0.13	0.17	0.21	0.14	0.25	-2.57	-2.10	-2.28	-2.51	-2.16
1.0	0.45	0.35	0.39	0.44	0.37	0.52	-5.15	-4.68	-4.86	-5.09	-4.73
1.5	0.66	0.57	0.61	0.66	0.59	0.78	-7.73	-7.26	-7.44	-7.66	-7.31
2.0	0.88	0.79	0.83	0.88	0.82	1.04	-10.3	-9.85	-10.0	-10.3	-9.89
2.5	1.39	1.01	1.05	1.10	1.04	1.86	-13.4	-12.4	-12.6	-12.8	-12.5
3.0	1.93	1.59	1.62	1.73	1.47	3.27	-16.6	-15.6	-15.8	-16.2	-15.4
3.5	2.51	2.20	2.30	2.41	2.35	4.68	-19.9	-19.0	-19.3	-19.6	-15.7
4.0	3.19	2.88	2.98	3.09	3.77	6.10	-23.4	-22.5	-22.7	-23.0	-8.45
4.5	3.86	3.56	3.66	3.77	5.18	7.51	-26.9	-26.0	-26.2	-26.5	-2.15
5.0	4.54	4.23	4.34	5.07	6.60	8.92	-30.4	-29.5	-29.7	-19.8	3.53
5.5	5.21	4.91	5.02	6.49	8.01	10.3	-34.0	-33.0	-33.3	-12.2	8.57
6.0	5.88	5.58	5.69	7.90	9.42	11.7	-37.6	-36.6	-36.8	-5.46	13.0
6.5	6.55	6.25	7.01	9.31	10.8	13.1	-41.2	-40.1	-28.6	0.36	16.9
7.0	7.22	6.92	8.42	10.7	12.2	14.5	-44.8	-43.7	-20.1	5.45	20.4
7.5	7.88	7.59	9.84	12.1	13.6	15.9	-48.4	-47.4	-12.7	9.94	23.6
8.0	8.55	8.96	11.2	13.5	15.0	17.3	-52.1	-37.3	-6.41	13.9	26.4
8.5	9.21	10.4	12.7	14.9	16.4	18.7	-55.8	-28.0	-0.86	17.5	29.0
9.0	10.3	11.8	14.1	16.3	17.9	20.1	-50.2	-20.1	4.03	20.7	31.4
9.5	11.7	13.2	15.5	17.8	19.2	21.5	-39.5	-13.2	8.37	23.7	33.5
10.0	13.1	14.6	16.9	19.2	20.6	22.9	-30.3	-7.21	12.3	26.3	35.5
10.5	14.5	16.0	18.3	20.5	22.0	24.3	-22.5	-1.92	15.8	28.7	37.3
11.0	16.0	17.4	19.7	21.9	23.4	25.7	-15.7	2.78	18.9	30.9	39.0
11.5	17.4	18.8	21.1	23.3	24.9	27.1	-9.71	6.97	21.8	33.0	40.6
12.0	18.8	20.2	22.5	24.8	26.3	28.5	-4.43	10.7	24.4	34.9	42.1
12.5	20.2	21.6	23.9	26.2	27.7	29.9	0.28	14.2	26.8	36.7	43.5
13.0	21.6	23.0	25.3	27.6	29.1	31.3	4.50	17.3	29.1	38.4	44.8
13.5	23.0	24.5	26.7	29.0	30.5	32.8	8.29	20.2	31.2	40.0	46.1
14.0	24.4	25.9	28.1	30.4	31.9	34.2	11.8	22.9	33.2	41.4	47.2
14.5	25.8	27.3	29.6	31.8	33.3	35.6	15.0	25.3	35.0	42.8	48.3
15.0	27.2	28.7	31.0	33.2	34.7	37.0	18.0	27.6	36.6	44.0	49.3
15.5	28.6	30.1	32.4	34.7	36.1	38.4	20.7	29.7	38.2	45.2	50.3
16.0	30.1	31.5	33.8	36.1	37.5	39.8	23.2	31.6	39.7	46.3	51.2
16.5	31.5	33.0	35.2	37.5	39.0	41.2	25.5	33.4	41.0	47.4	52.0
17.0	32.9	34.4	36.6	38.9	40.4	42.6	27.6	35.1	42.3	48.4	52.8
17.5	34.3	35.8	38.0	40.3	41.8	44.0	29.6	36.6	43.5	49.3	53.6
18.0	35.7	37.2	39.4	41.7	43.2	45.3	31.4	38.1	44.6	50.2	54.3
18.5	37.1	38.6	40.8	43.1	44.5	46.7	33.1	39.5	45.7	51.0	55.0
19.0	38.5	40.0	42.2	44.5	45.9	48.1	34.7	40.8	46.7	51.8	55.6
19.5	39.9	41.4	43.6	45.9	47.3	49.5	36.2	42.0	47.7	52.6	56.3
20.0	41.4	42.8	45.0	47.3	48.7	50.9	37.6	43.1	48.6	53.3	56.8
20.5	42.8	44.2	46.4	48.7	50.1	52.3	38.9	44.2	49.4	54.0	57.4
21.0	44.2	45.6	47.8	50.0	51.5	53.6	40.2	45.2	50.2	54.6	57.9
21.5	45.6	47.0	49.2	51.4	52.9	55.0	41.3	46.2	51.0	55.2	58.5
22.0	47.0	48.4	50.6	52.8	54.3	56.4	42.4	47.1	51.7	55.8	58.9
22.5	48.4	49.8	52.0	54.2	55.6	57.7	43.5	47.9	52.4	56.4	59.4
23.0	49.7	51.2	53.4	55.6	57.0	59.1	44.5	48.8	53.1	56.9	59.9
23.5	51.1	52.6	54.7	56.9	58.4	60.4	45.4	49.5	53.7	57.4	60.3
24.0	52.5	54.0	56.1	58.3	59.7	61.8	46.3	50.3	54.3	57.9	60.7
24.5	53.9	55.4	57.5	59.7	61.1	63.1	47.1	51.0	54.9	58.4	61.1
25.0	55.3	56.7	58.9	61.0	62.4	64.5	47.9	51.7	55.4	58.8	61.4
25.5	56.7	58.1	60.2	62.4	63.8	65.8	48.7	52.3	56.0	59.2	61.8
26.0	58.0	59.5	61.6	63.7	65.1	67.1	49.4	52.9	56.4	59.6	62.1
26.5	59.4	60.8	62.9	65.1	66.4	68.4	50.1	53.5	56.9	60.0	62.4
27.0	60.8	62.2	64.3	66.4	67.8	69.7	50.8	54.0	57.4	60.4	62.7
27.5	62.1	63.6	65.6	67.7	69.1	71.0	51.4	54.6	57.8	60.7	63.0
28.0	63.5	64.9	66.9	69.0	70.4	72.4	52.0	55.1	58.2	61.1	63.3
28.5	64.8	66.2	68.3	70.3	71.7	73.7	52.5	55.6	58.6	61.4	63.6
29.0	66.2	67.6	69.6	71.6	73.0	75.1	53.1	56.0	59.0	61.7	63.8

EBT WR ISENTHALPIC DATA

	4.63 wt% H2O	4.73 wt% H2O	4.83 wt% H2O	4.93 wt% H2O	5.03 wt% H2O	5.13 wt% H2O	4.63	4.73	4.83	4.93	5.03
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*
29.5	67.5	68.9	70.9	72.9	74.3	76.5	53.6	56.4	59.3	62.0	64.1
30.0	68.8	70.2	72.2	74.3	75.7	77.9	54.1	56.8	59.6	62.3	64.4
30.5	70.1	71.5	73.5	75.7	77.1	79.2	54.5	57.2	60.0	62.6	64.7
31.0	71.4	72.8	74.9	77.1	78.5	80.6	55.0	57.6	60.4	63.0	65.0
31.5	72.7	74.1	76.3	78.4	79.8	81.9	55.4	58.0	60.8	63.3	65.3
32.0	74.1	75.5	77.6	79.8	81.2	83.2	55.9	58.4	61.1	63.6	65.5
32.5	75.5	76.9	79.0	81.1	82.5	84.5	56.4	58.8	61.5	63.9	65.8
33.0	76.9	78.2	80.4	82.5	83.8	85.8	56.8	59.2	61.8	64.1	66.0
33.5	78.2	79.6	81.7	83.8	85.1		57.3	59.6	62.1	64.4	66.2
34.0	79.6	81.0	83.0	85.1	86.3		57.7	60.0	62.4	64.6	66.3
34.5	81.0	82.3	84.3	86.3			58.1	60.3	62.7	64.8	
35.0	82.3	83.6	85.6				58.4	60.6	62.9		
35.5	83.6	84.9	86.8				58.8	60.9	63.1		
36.0	84.9	86.2					59.1	61.2			
36.5	86.2						59.4				

EBT WR I

4	5.13	4.63	4.73	4.83	4.93	5.03	5.13	4.63	4.73	4.83
ΔH (kJ)	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	474.0	475.0	475.9
0.5	-0.41	-0.20	-0.17	-0.18	-0.20	-0.18	-0.03	473.8	474.8	475.7
1.0	-1.08	-0.40	-0.37	-0.39	-0.41	-0.39	-0.09	473.6	474.6	475.5
1.5	-1.75	-0.61	-0.58	-0.60	-0.62	-0.60	-0.15	473.4	474.4	475.3
2.0	-2.42	-0.81	-0.78	-0.80	-0.83	-0.81	-0.21	473.2	474.2	475.1
2.5	0.16	-1.05	-0.98	-1.01	-1.03	-1.02	0.01	472.9	474.0	474.9
3.0	5.69	-1.29	-1.23	-1.26	-1.30	-1.25	0.56	472.7	473.8	474.7
3.5	10.6	-1.54	-1.49	-1.53	-1.57	-1.30	1.10	472.5	473.5	474.4
4.0	15.0	-1.81	-1.76	-1.80	-1.84	-0.76	1.67	472.2	473.2	474.1
4.5	19.0	-2.07	-2.03	-2.07	-2.11	-0.21	2.24	471.9	473.0	473.9
5.0	22.6	-2.34	-2.29	-2.33	-1.69	0.36	2.82	471.7	472.7	473.6
5.5	25.8	-2.61	-2.56	-2.60	-1.12	0.94	3.40	471.4	472.4	473.3
6.0	28.7	-2.87	-2.83	-2.87	-0.54	1.52	3.97	471.1	472.2	473.1
6.5	31.3	-3.14	-3.09	-2.40	0.04	2.09	4.54	470.9	471.9	473.5
7.0	33.6	-3.40	-3.36	-1.82	0.61	2.67	5.11	470.6	471.6	474.1
7.5	35.7	-3.66	-3.62	-1.25	1.19	3.24	5.68	470.3	471.4	474.7
8.0	37.7	-3.93	-3.09	-0.67	1.76	3.81	6.25	470.1	471.9	475.3
8.5	39.5	-4.19	-2.52	-0.10	2.33	4.38	6.82	469.8	472.5	475.8
9.0	41.2	-3.96	-1.94	0.48	2.90	4.95	7.38	470.0	473.1	476.4
9.5	42.7	-3.39	-1.37	1.05	3.47	5.52	7.95	470.6	473.6	477.0
10.0	44.1	-2.81	-0.80	1.62	4.04	6.08	8.51	471.2	474.2	477.5
10.5	45.4	-2.24	-0.22	2.19	4.60	6.64	9.07	471.8	474.8	478.1
11.0	46.7	-1.67	0.34	2.75	5.17	7.21	9.63	472.3	475.4	478.7
11.5	47.9	-1.10	0.91	3.32	5.73	7.79	10.2	472.9	475.9	479.2
12.0	49.0	-0.53	1.48	3.88	6.31	8.37	10.8	473.5	476.5	479.8
12.5	50.1	0.04	2.04	4.45	6.89	8.94	11.4	474.0	477.0	480.4
13.0	51.1	0.60	2.61	5.03	7.46	9.52	11.9	474.6	477.6	481.0
13.5	52.0	1.16	3.19	5.61	8.04	10.1	12.5	475.2	478.2	481.5
14.0	52.9	1.74	3.77	6.18	8.61	10.7	13.1	475.7	478.8	482.1
14.5	53.7	2.32	4.35	6.76	9.19	11.2	13.6	476.3	479.4	482.7
15.0	54.5	2.89	4.93	7.33	9.76	11.8	14.2	476.9	479.9	483.3
15.5	55.2	3.47	5.50	7.90	10.3	12.4	14.8	477.5	480.5	483.8
16.0	55.9	4.04	6.08	8.48	10.9	12.9	15.3	478.0	481.1	484.4
16.5	56.6	4.62	6.65	9.05	11.5	13.5	15.9	478.6	481.7	485.0
17.0	57.2	5.19	7.22	9.62	12.0	14.1	16.5	479.2	482.2	485.5
17.5	57.8	5.76	7.79	10.2	12.6	14.6	17.0	479.8	482.8	486.1
18.0	58.4	6.33	8.36	10.8	13.2	15.2	17.6	480.3	483.4	486.7
18.5	58.9	6.90	8.93	11.3	13.7	15.8	18.1	480.9	483.9	487.2
19.0	59.4	7.47	9.50	11.9	14.3	16.3	18.7	481.5	484.5	487.8
19.5	59.9	8.04	10.1	12.4	14.8	16.9	19.2	482.0	485.1	488.4
20.0	60.4	8.60	10.6	13.0	15.4	17.4	19.8	482.6	485.6	488.9
20.5	60.9	9.16	11.2	13.6	16.0	18.0	20.3	483.2	486.2	489.5
21.0	61.3	9.73	11.8	14.1	16.5	18.5	20.9	483.7	486.8	490.0
21.5	61.7	10.3	12.3	14.7	17.1	19.1	21.4	484.3	487.3	490.6
22.0	62.1	10.8	12.9	15.2	17.6	19.6	21.9	484.8	487.9	491.2
22.5	62.5	11.4	13.4	15.8	18.2	20.2	22.5	485.4	488.4	491.7
23.0	62.8	12.0	14.0	16.3	18.7	20.7	23.0	486.0	489.0	492.3
23.5	63.2	12.5	14.5	16.9	19.2	21.2	23.5	486.5	489.5	492.8
24.0	63.5	13.1	15.1	17.4	19.8	21.8	24.1	487.1	490.1	493.3
24.5	63.8	13.6	15.6	17.9	20.3	22.3	24.6	487.6	490.6	493.9
25.0	64.1	14.1	16.2	18.5	20.8	22.8	25.1	488.1	491.2	494.4
25.5	64.4	14.7	16.7	19.0	21.4	23.4	25.6	488.7	491.7	494.9
26.0	64.6	15.2	17.2	19.5	21.9	23.9	26.1	489.2	492.2	495.5
26.5	64.9	15.8	17.8	20.1	22.4	24.4	26.6	489.8	492.8	496.0
27.0	65.1	16.3	18.3	20.6	22.9	24.9	27.1	490.3	493.3	496.5
27.5	65.4	16.8	18.8	21.1	23.4	25.4	27.6	490.8	493.8	497.0
28.0	65.6	17.3	19.3	21.6	23.9	25.9	28.1	491.3	494.3	497.5
28.5	65.9	17.9	19.9	22.1	24.4	26.3	28.7	491.9	494.9	498.0
29.0	66.2	18.4	20.4	22.6	24.9	26.8	29.2	492.4	495.4	498.5

ISENTHALPIC MASTER SHEET 9

EBT WR I

4	5.13	4.63	4.73	4.83	4.93	5.03	5.13	4.63	4.73	4.83
ΔH (kJ)	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*
29.5	66.5	18.9	20.9	23.1	25.4	27.4	29.8	492.9	495.9	499.0
30.0	66.7	19.4	21.4	23.6	25.9	27.9	30.3	493.4	496.4	499.5
30.5	66.9	19.9	21.8	24.1	26.5	28.5	30.8	493.9	496.9	500.0
31.0	67.2	20.4	22.3	24.6	27.0	29.0	31.4	494.4	497.3	500.6
31.5	67.4	20.8	22.8	25.2	27.6	29.6	31.9	494.8	497.8	501.1
32.0	67.6	21.4	23.4	25.7	28.1	30.1	32.4	495.4	498.4	501.7
32.5	67.8	22.0	23.9	26.3	28.6	30.6	32.9	495.9	498.9	502.2
33.0	67.9	22.5	24.5	26.8	29.1	31.1	33.4	496.5	499.5	502.7
33.5		23.0	25.0	27.3	29.7	31.6		497.0	500.0	503.3
34.0		23.6	25.6	27.9	30.1	32.0		497.6	500.6	503.8
34.5		24.1	26.1	28.4	30.6			498.1	501.1	504.3
35.0		24.6	26.6	28.8				498.6	501.6	504.8
35.5		25.2	27.1	29.3				499.1	502.1	505.2
36.0		25.6	27.5					499.6	502.5	
36.5		26.1						500.1		

EBT WR I

4	4.93	5.03	5.13	4.63	4.73	4.83	4.93	5.03	5.13	4.63
ΔH (kJ)	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*porosity*
0.0	476.9	477.8	478.7	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	0.0E+00
0.5	476.7	477.7	478.7	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00
1.0	476.4	477.5	478.7	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00
1.5	476.2	477.2	478.6	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00
2.0	476.0	477.0	478.5	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00
2.5	475.8	476.8	478.8	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.9E-05	0.0E+00
3.0	475.6	476.6	479.3	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	2.0E-05	0.0E+00
3.5	475.3	476.5	479.9	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	2.2E-05	0.0E+00
4.0	475.0	477.1	480.4	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.9E-05	2.3E-05	0.0E+00
4.5	474.8	477.6	481.0	1.6E-05	1.6E-05	1.7E-05	1.7E-05	2.0E-05	2.5E-05	0.0E+00
5.0	475.2	478.2	481.6	1.6E-05	1.6E-05	1.7E-05	1.8E-05	2.2E-05	2.6E-05	0.0E+00
5.5	475.7	478.8	482.1	1.6E-05	1.6E-05	1.7E-05	1.9E-05	2.3E-05	2.7E-05	0.0E+00
6.0	476.3	479.4	482.7	1.6E-05	1.6E-05	1.6E-05	2.1E-05	2.4E-05	2.9E-05	0.0E+00
6.5	476.9	479.9	483.3	1.6E-05	1.6E-05	1.8E-05	2.2E-05	2.6E-05	3.0E-05	0.0E+00
7.0	477.5	480.5	483.9	1.6E-05	1.6E-05	1.9E-05	2.4E-05	2.7E-05	3.1E-05	0.0E+00
7.5	478.0	481.1	484.4	1.6E-05	1.6E-05	2.1E-05	2.5E-05	2.9E-05	3.3E-05	0.0E+00
8.0	478.6	481.7	485.0	1.6E-05	1.8E-05	2.2E-05	2.6E-05	3.0E-05	3.4E-05	0.0E+00
8.5	479.2	482.2	485.6	1.6E-05	1.9E-05	2.3E-05	2.8E-05	3.1E-05	3.6E-05	0.0E+00
9.0	479.8	482.8	486.1	1.7E-05	2.0E-05	2.5E-05	2.9E-05	3.3E-05	3.7E-05	2.3E-03
9.5	480.3	483.4	486.7	1.8E-05	2.2E-05	2.6E-05	3.1E-05	3.4E-05	3.8E-05	6.2E-03
10.0	480.9	483.9	487.3	2.0E-05	2.3E-05	2.8E-05	3.2E-05	3.5E-05	4.0E-05	1.0E-02
10.5	481.5	484.5	487.8	2.1E-05	2.5E-05	2.9E-05	3.3E-05	3.7E-05	4.1E-05	1.4E-02
11.0	482.0	485.1	488.4	2.3E-05	2.6E-05	3.0E-05	3.5E-05	3.8E-05	4.2E-05	1.8E-02
11.5	482.6	485.6	489.0	2.4E-05	2.7E-05	3.2E-05	3.6E-05	3.9E-05	4.4E-05	2.2E-02
12.0	483.2	486.2	489.5	2.5E-05	2.9E-05	3.3E-05	3.7E-05	4.1E-05	4.5E-05	2.6E-02
12.5	483.7	486.8	490.1	2.7E-05	3.0E-05	3.5E-05	3.9E-05	4.2E-05	4.6E-05	2.9E-02
13.0	484.3	487.4	490.7	2.8E-05	3.2E-05	3.6E-05	4.0E-05	4.4E-05	4.8E-05	3.3E-02
13.5	484.9	487.9	491.2	3.0E-05	3.3E-05	3.7E-05	4.1E-05	4.5E-05	4.9E-05	3.7E-02
14.0	485.5	488.5	491.8	3.1E-05	3.4E-05	3.9E-05	4.3E-05	4.6E-05	5.0E-05	4.1E-02
14.5	486.0	489.1	492.4	3.2E-05	3.6E-05	4.0E-05	4.4E-05	4.8E-05	5.2E-05	4.5E-02
15.0	486.6	489.7	493.0	3.4E-05	3.7E-05	4.1E-05	4.6E-05	4.9E-05	5.3E-05	4.9E-02
15.5	487.2	490.2	493.5	3.5E-05	3.9E-05	4.3E-05	4.7E-05	5.0E-05	5.4E-05	5.2E-02
16.0	487.8	490.8	494.1	3.7E-05	4.0E-05	4.4E-05	4.8E-05	5.2E-05	5.5E-05	5.6E-02
16.5	488.3	491.4	494.6	3.8E-05	4.1E-05	4.5E-05	5.0E-05	5.3E-05	5.7E-05	6.0E-02
17.0	488.9	491.9	495.2	3.9E-05	4.3E-05	4.7E-05	5.1E-05	5.4E-05	5.8E-05	6.4E-02
17.5	489.5	492.5	495.8	4.1E-05	4.4E-05	4.8E-05	5.2E-05	5.5E-05	5.9E-05	6.7E-02
18.0	490.0	493.0	496.3	4.2E-05	4.5E-05	4.9E-05	5.4E-05	5.7E-05	6.1E-05	7.1E-02
18.5	490.6	493.6	496.9	4.3E-05	4.7E-05	5.1E-05	5.5E-05	5.8E-05	6.2E-05	7.5E-02
19.0	491.1	494.2	497.4	4.5E-05	4.8E-05	5.2E-05	5.6E-05	5.9E-05	6.3E-05	7.9E-02
19.5	491.7	494.7	498.0	4.6E-05	4.9E-05	5.3E-05	5.7E-05	6.1E-05	6.4E-05	8.2E-02
20.0	492.3	495.3	498.5	4.7E-05	5.1E-05	5.5E-05	5.9E-05	6.2E-05	6.6E-05	8.6E-02
20.5	492.8	495.8	499.1	4.9E-05	5.2E-05	5.6E-05	6.0E-05	6.3E-05	6.7E-05	9.0E-02
21.0	493.4	496.4	499.6	5.0E-05	5.3E-05	5.7E-05	6.1E-05	6.4E-05	6.8E-05	9.3E-02
21.5	493.9	496.9	500.2	5.1E-05	5.5E-05	5.9E-05	6.3E-05	6.6E-05	6.9E-05	9.7E-02
22.0	494.5	497.5	500.7	5.3E-05	5.6E-05	6.0E-05	6.4E-05	6.7E-05	7.1E-05	0.10
22.5	495.0	498.0	501.2	5.4E-05	5.7E-05	6.1E-05	6.5E-05	6.8E-05	7.2E-05	0.10
23.0	495.6	498.6	501.8	5.5E-05	5.9E-05	6.2E-05	6.6E-05	6.9E-05	7.3E-05	0.11
23.5	496.1	499.1	502.3	5.7E-05	6.0E-05	6.4E-05	6.8E-05	7.1E-05	7.4E-05	0.11
24.0	496.6	499.6	502.8	5.8E-05	6.1E-05	6.5E-05	6.9E-05	7.2E-05	7.5E-05	0.11
24.5	497.2	500.1	503.3	5.9E-05	6.2E-05	6.6E-05	7.0E-05	7.3E-05	7.7E-05	0.12
25.0	497.7	500.7	503.8	6.0E-05	6.4E-05	6.7E-05	7.1E-05	7.4E-05	7.8E-05	0.12
25.5	498.2	501.2	504.3	6.2E-05	6.5E-05	6.9E-05	7.2E-05	7.5E-05	7.9E-05	0.13
26.0	498.7	501.7	504.8	6.3E-05	6.6E-05	7.0E-05	7.4E-05	7.7E-05	8.0E-05	0.13
26.5	499.3	502.2	505.3	6.4E-05	6.7E-05	7.1E-05	7.5E-05	7.8E-05	8.1E-05	0.13
27.0	499.8	502.7	505.8	6.5E-05	6.9E-05	7.2E-05	7.6E-05	7.9E-05	8.2E-05	0.14
27.5	500.3	503.2	506.3	6.7E-05	7.0E-05	7.3E-05	7.7E-05	8.0E-05	8.3E-05	0.14
28.0	500.8	503.7	506.9	6.8E-05	7.1E-05	7.5E-05	7.8E-05	8.1E-05	8.4E-05	0.14
28.5	501.3	504.2	507.4	6.9E-05	7.2E-05	7.6E-05	7.9E-05	8.2E-05	8.6E-05	0.15
29.0	501.7	504.7	508.0	7.0E-05	7.3E-05	7.7E-05	8.0E-05	8.3E-05	8.7E-05	0.15

EBT WR I

4	4.93	5.03	5.13	4.63	4.73	4.83	4.93	5.03	5.13	4.63
ΔH (kJ)	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*porosity*
29.5	502.2	505.2	508.5	7.1E-05	7.5E-05	7.8E-05	8.2E-05	8.5E-05	8.8E-05	0.15
30.0	502.8	505.8	509.1	7.3E-05	7.6E-05	7.9E-05	8.3E-05	8.6E-05	8.9E-05	0.16
30.5	503.3	506.3	509.6	7.4E-05	7.7E-05	8.0E-05	8.4E-05	8.7E-05	9.0E-05	0.16
31.0	503.9	506.9	510.1	7.5E-05	7.8E-05	8.2E-05	8.5E-05	8.8E-05	9.2E-05	0.16
31.5	504.4	507.4	510.6	7.6E-05	7.9E-05	8.3E-05	8.6E-05	8.9E-05	9.3E-05	0.16
32.0	505.0	507.9	511.2	7.7E-05	8.0E-05	8.4E-05	8.8E-05	9.0E-05	9.4E-05	0.17
32.5	505.5	508.4	511.6	7.9E-05	8.2E-05	8.5E-05	8.9E-05	9.2E-05	9.5E-05	0.17
33.0	506.0	508.9	512.1	8.0E-05	8.3E-05	8.6E-05	9.0E-05	9.3E-05	9.6E-05	0.18
33.5	506.5	509.4		8.1E-05	8.4E-05	8.7E-05	9.1E-05	9.4E-05		0.18
34.0	507.0	509.9		8.2E-05	8.5E-05	8.9E-05	9.2E-05	9.5E-05		0.18
34.5	507.4			8.3E-05	8.6E-05	9.0E-05	9.3E-05			0.19
35.0				8.5E-05	8.7E-05	9.1E-05				0.19
35.5				8.6E-05	8.9E-05	9.2E-05				0.19
36.0				8.7E-05	9.0E-05					0.19
36.5				8.8E-05						0.20

EBT WR I

4	4.73	4.83	4.93	5.03	5.13
ΔH (kJ)	*porosity*	*porosity*	*porosity*	*porosity*	*porosity*
0.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.3E-04
1.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-03
1.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.0E-03
2.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-03
2.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.8E-03
3.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.5E-03
3.5	0.0E+00	0.0E+00	0.0E+00	1.0E-03	1.2E-02
4.0	0.0E+00	0.0E+00	0.0E+00	4.8E-03	1.6E-02
4.5	0.0E+00	0.0E+00	0.0E+00	8.6E-03	2.0E-02
5.0	0.0E+00	0.0E+00	3.2E-03	1.2E-02	2.4E-02
5.5	0.0E+00	0.0E+00	7.1E-03	1.6E-02	2.7E-02
6.0	0.0E+00	0.0E+00	1.1E-02	2.0E-02	3.1E-02
6.5	0.0E+00	3.4E-03	1.5E-02	2.4E-02	3.5E-02
7.0	0.0E+00	7.3E-03	1.9E-02	2.8E-02	3.9E-02
7.5	0.0E+00	1.1E-02	2.3E-02	3.2E-02	4.3E-02
8.0	3.7E-03	1.5E-02	2.6E-02	3.5E-02	4.6E-02
8.5	7.6E-03	1.9E-02	3.0E-02	3.9E-02	5.0E-02
9.0	1.2E-02	2.3E-02	3.4E-02	4.3E-02	5.4E-02
9.5	1.5E-02	2.7E-02	3.8E-02	4.7E-02	5.7E-02
10.0	1.9E-02	3.0E-02	4.1E-02	5.0E-02	6.1E-02
10.5	2.3E-02	3.4E-02	4.5E-02	5.4E-02	6.5E-02
11.0	2.7E-02	3.8E-02	4.9E-02	5.8E-02	6.8E-02
11.5	3.1E-02	4.2E-02	5.3E-02	6.1E-02	7.2E-02
12.0	3.5E-02	4.6E-02	5.6E-02	6.5E-02	7.6E-02
12.5	3.8E-02	4.9E-02	6.0E-02	6.9E-02	7.9E-02
13.0	4.2E-02	5.3E-02	6.4E-02	7.3E-02	8.3E-02
13.5	4.6E-02	5.7E-02	6.8E-02	7.6E-02	8.7E-02
14.0	5.0E-02	6.1E-02	7.1E-02	8.0E-02	9.0E-02
14.5	5.4E-02	6.4E-02	7.5E-02	8.4E-02	9.4E-02
15.0	5.7E-02	6.8E-02	7.9E-02	8.7E-02	9.8E-02
15.5	6.1E-02	7.2E-02	8.2E-02	9.1E-02	0.10
16.0	6.5E-02	7.6E-02	8.6E-02	9.5E-02	0.10
16.5	6.9E-02	7.9E-02	9.0E-02	9.8E-02	0.11
17.0	7.2E-02	8.3E-02	9.3E-02	0.10	0.11
17.5	7.6E-02	8.7E-02	9.7E-02	0.11	0.12
18.0	8.0E-02	9.0E-02	0.10	0.11	0.12
18.5	8.3E-02	9.4E-02	0.10	0.11	0.12
19.0	8.7E-02	9.7E-02	0.11	0.12	0.13
19.5	9.1E-02	0.10	0.11	0.12	0.13
20.0	9.4E-02	0.10	0.11	0.12	0.13
20.5	9.8E-02	0.11	0.12	0.13	0.14
21.0	0.10	0.11	0.12	0.13	0.14
21.5	0.11	0.12	0.13	0.13	0.14
22.0	0.11	0.12	0.13	0.14	0.15
22.5	0.11	0.12	0.13	0.14	0.15
23.0	0.12	0.13	0.14	0.14	0.15
23.5	0.12	0.13	0.14	0.15	0.16
24.0	0.12	0.13	0.14	0.15	0.16
24.5	0.13	0.14	0.15	0.15	0.16
25.0	0.13	0.14	0.15	0.16	0.17
25.5	0.13	0.14	0.15	0.16	0.17
26.0	0.14	0.15	0.16	0.16	0.17
26.5	0.14	0.15	0.16	0.17	0.18
27.0	0.14	0.15	0.16	0.17	0.18
27.5	0.15	0.16	0.17	0.17	0.18
28.0	0.15	0.16	0.17	0.18	0.18
28.5	0.15	0.16	0.17	0.18	0.19
29.0	0.16	0.17	0.17	0.18	0.19

EBT WR I

4	4.73	4.83	4.93	5.03	5.13
ΔH (kJ)	*porosity*	*porosity*	*porosity*	*porosity*	*porosity*
29.5	0.16	0.17	0.18	0.19	0.19
30.0	0.16	0.17	0.18	0.19	0.20
30.5	0.17	0.18	0.18	0.19	0.20
31.0	0.17	0.18	0.19	0.20	0.20
31.5	0.17	0.18	0.19	0.20	0.21
32.0	0.18	0.19	0.19	0.20	0.21
32.5	0.18	0.19	0.20	0.20	0.21
33.0	0.18	0.19	0.20	0.21	0.22
33.5	0.19	0.20	0.20	0.21	
34.0	0.19	0.20	0.21	0.21	
34.5	0.19	0.20	0.21		
35.0	0.20	0.20			
35.5	0.20	0.21			
36.0	0.20				
36.5					

ISENTHALPIC MASTER SHEET 9

LBT ISENTHALPIC DATA

	4.5	4.6	4.7	4.8	4.9	5	4.5	4.6	4.7	4.8
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*
0.0	0.09	0.09	0.10	0.10	0.11	0.10	0.00	0.00	0.00	0.00
0.5	0.10	0.10	0.11	0.11	0.11	0.11	-1.14	-1.14	-1.15	-1.15
1.0	0.11	0.11	0.11	0.11	0.12	0.12	-2.28	-2.29	-2.29	-2.30
1.5	0.12	0.12	0.12	0.12	0.13	0.13	-3.45	-3.43	-3.46	-3.45
2.0	0.14	0.14	0.15	0.14	0.15	0.15	-4.65	-4.64	-4.67	-4.66
2.5	0.25	0.16	0.17	0.16	0.17	0.17	-6.00	-5.85	-5.88	-5.87
3.0	0.60	0.18	0.19	0.18	0.19	0.19	-7.74	-7.06	-7.09	-7.08
3.5	0.94	0.49	0.30	0.20	0.22	0.21	-9.47	-8.74	-8.45	-8.29
4.0	1.29	0.84	0.65	0.23	0.24	0.23	-11.2	-10.5	-10.2	-9.47
4.5	1.63	1.19	1.00	0.57	0.37	0.25	-12.9	-12.2	-11.9	-11.2
5.0	1.97	1.53	1.34	0.91	0.71	0.57	-14.7	-13.9	-13.6	-12.9
5.5	2.31	1.87	1.68	1.26	1.05	1.06	-16.4	-15.7	-15.4	-14.6
6.0	2.65	2.21	2.03	1.60	1.60	1.58	-18.2	-17.4	-17.1	-16.3
6.5	2.99	2.55	2.37	1.94	2.12	2.09	-19.9	-19.1	-18.8	-18.0
7.0	3.32	2.89	2.71	2.27	2.64	2.61	-21.7	-20.9	-20.6	-19.7
7.5	3.66	3.23	3.04	2.61	3.18	3.16	-23.4	-22.6	-22.3	-21.4
8.0	3.99	3.56	3.38	2.94	3.72	3.70	-25.2	-24.4	-24.0	-23.1
8.5	4.33	3.90	3.71	3.54	4.26	4.23	-26.9	-26.1	-25.8	-17.5
9.0	4.66	4.23	4.05	4.08	4.79	4.76	-28.7	-27.9	-27.5	-13.7
9.5	4.99	4.56	4.38	4.61	5.30	5.27	-30.5	-29.6	-29.2	-10.3
10.0	5.32	4.89	4.81	5.13	5.81	5.78	-32.2	-31.4	-27.8	-7.24
10.5	5.64	5.22	5.32	5.64	6.31	6.28	-34.0	-33.1	-23.8	-4.48
11.0	5.97	5.55	5.83	6.14	6.81	6.77	-35.8	-34.9	-20.2	-1.91
11.5	6.30	5.88	6.33	6.64	7.30	7.27	-37.5	-36.7	-16.8	0.49
12.0	6.62	6.20	6.83	7.14	7.79	7.75	-39.3	-38.4	-13.7	2.72
12.5	6.94	6.68	7.33	7.63	8.27	8.24	-41.1	-34.9	-10.8	4.81
13.0	7.26	7.18	7.82	8.12	8.75	8.72	-42.9	-30.9	-8.14	6.77
13.5	7.58	7.67	8.31	8.60	9.60	9.52	-44.7	-27.1	-5.63	8.61
14.0	7.90	8.16	8.79	9.23	10.7	10.7	-46.4	-23.6	-3.29	10.7
14.5	8.36	8.65	9.67	10.4	11.9	11.8	-43.0	-20.4	0.17	13.9
15.0	8.84	9.32	10.8	11.5	13.0	12.9	-38.8	-16.6	4.09	16.8
15.5	9.77	10.5	11.9	12.6	14.1	14.0	-32.4	-11.3	7.64	19.4
16.0	10.9	11.6	13.1	13.8	15.3	15.2	-25.6	-6.56	10.9	21.9
16.5	12.0	12.7	14.2	14.9	16.4	16.3	-19.7	-2.27	13.8	24.1
17.0	13.2	13.9	15.3	16.0	17.5	17.4	-14.3	1.62	16.6	26.2
17.5	14.3	15.0	16.5	17.2	18.6	18.6	-9.52	5.16	19.1	28.1
18.0	15.4	16.1	17.6	18.3	19.8	19.7	-5.18	8.40	21.4	29.9
18.5	16.6	17.3	18.7	19.4	20.9	20.8	-1.23	11.4	23.5	31.6
19.0	17.7	18.4	19.9	20.6	22.0	22.0	2.37	14.1	25.5	33.2
19.5	18.8	19.5	21.0	21.7	23.2	23.1	5.66	16.6	27.4	34.7
20.0	20.0	20.7	22.1	22.8	24.3	24.2	8.70	19.0	29.1	36.1
20.5	21.1	21.8	23.3	23.9	25.4	25.3	11.5	21.2	30.8	37.4
21.0	22.3	22.9	24.4	25.1	26.6	26.5	14.1	23.2	32.3	38.6
21.5	23.4	24.1	25.5	26.2	27.7	27.6	16.5	25.1	33.8	39.8
22.0	24.5	25.2	26.7	27.3	28.8	28.7	18.7	26.9	35.1	40.9
22.5	25.7	26.3	27.8	28.5	29.9	29.9	20.8	28.5	36.4	41.9
23.0	26.8	27.5	28.9	29.6	31.1	31.0	22.8	30.1	37.6	42.9
23.5	27.9	28.6	30.1	30.7	32.2	32.1	24.6	31.6	38.8	43.9
24.0	29.1	29.7	31.2	31.9	33.3	33.2	26.3	33.0	39.9	44.8
24.5	30.2	30.9	32.3	33.0	34.5	34.4	27.9	34.3	40.9	45.6
25.0	31.3	32.0	33.4	34.1	35.6	35.5	29.4	35.5	41.9	46.4
25.5	32.5	33.1	34.6	35.3	36.7	36.6	30.9	36.7	42.8	47.2
26.0	33.6	34.3	35.7	36.4	37.9	37.7	32.2	37.8	43.7	48.0
26.5	34.7	35.4	36.8	37.5	39.0	38.9	33.5	38.9	44.5	48.7
27.0	35.9	36.5	38.0	38.6	40.1	40.0	34.7	39.9	45.3	49.3
27.5	37.0	37.7	39.1	39.8	41.2	41.1	35.9	40.9	46.1	50.0
28.0	38.1	38.8	40.2	40.9	42.4	42.3	37.0	41.8	46.9	50.6
28.5	39.3	39.9	41.4	42.0	43.5	43.4	38.0	42.7	47.6	51.2

ISENTHALPIC MASTER SHEET 9

LBT ISENTHALPIC DATA

	4.5	4.6	4.7	4.8	4.9	5	4.5	4.6	4.7	4.8
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*
29.0	40.4	41.0	42.5	43.2	44.6	44.5	39.0	43.5	48.2	51.8
29.5	41.5	42.2	43.6	44.3	45.7	45.6	40.0	44.3	48.9	52.3
30.0	42.7	43.3	44.8	45.4	46.9	46.8	40.9	45.1	49.5	52.9
30.5	43.8	44.4	45.9	46.5	48.0	47.9	41.7	45.8	50.1	53.4
31.0	44.9	45.6	47.0	47.7	49.1	49.0	42.6	46.5	50.7	53.9
31.5	46.1	46.7	48.1	48.8	50.3	50.1	43.3	47.2	51.3	54.3
32.0	47.2	47.8	49.3	49.9	51.4	51.3	44.1	47.8	51.8	54.8
32.5	48.3	49.0	50.4	51.1	52.5	52.4	44.8	48.4	52.3	55.2
33.0	49.4	50.1	51.5	52.2	53.6	53.5	45.5	49.0	52.8	55.7
33.5	50.6	51.2	52.7	53.3	54.8	54.6	46.2	49.6	53.3	56.1
34.0	51.7	52.3	53.8	54.4	55.9	55.8	46.9	50.2	53.7	56.5
34.5	52.8	53.5	54.9	55.6	57.0	56.9	47.5	50.7	54.2	56.9
35.0	54.0	54.6	56.0	56.7	58.1	58.0	48.1	51.2	54.6	57.2
35.5	55.1	55.7	57.2	57.8	59.3	59.1	48.7	51.7	55.0	57.6
36.0	56.2	56.9	58.3	58.9	60.4	60.2	49.2	52.2	55.4	57.9
36.5	57.4	58.0	59.4	60.1	61.5	61.4	49.7	52.7	55.8	58.3
37.0	58.5	59.1	60.5	61.2	62.6	62.5	50.3	53.1	56.2	58.6
37.5	59.6	60.2	61.7	62.3	63.7	63.6	50.8	53.5	56.6	58.9
38.0	60.7	61.4	62.8	63.4	64.9	64.7	51.2	54.0	56.9	59.2
38.5	61.9	62.5	63.9	64.5	66.0	65.8	51.7	54.4	57.3	59.5
39.0	63.0	63.6	65.0	65.7	67.1	67.0	52.2	54.8	57.6	59.8
39.5	64.1	64.7	66.1	66.8	68.2	68.1	52.6	55.1	57.9	60.1
40.0	65.2	65.9	67.3	67.9	69.3	69.2	53.0	55.5	58.2	60.3
40.5	66.4	67.0	68.4	69.0	70.4	70.3	53.4	55.9	58.5	60.6
41.0	67.5	68.1	69.5	70.1	71.5	71.4	53.8	56.2	58.8	60.8
41.5	68.6	69.2	70.6	71.2	72.6	72.5	54.2	56.5	59.1	61.1
42.0	69.7	70.3	71.7	72.3	73.7	73.6	54.6	56.8	59.3	61.3
42.5	70.8	71.4	72.8	73.4	74.8	74.7	54.9	57.2	59.6	61.5
43.0	71.9	72.5	73.9	74.5	75.9	75.8	55.2	57.5	59.9	61.8
43.5	73.0	73.7	75.0	75.6	77.0	76.9	55.6	57.7	60.1	62.0
44.0	74.2	74.8	76.1	76.7	78.1	78.0	55.9	58.0	60.3	62.2
44.5	75.3	75.9	77.2	77.8	79.2	79.0	56.2	58.3	60.6	62.4
45.0	76.4	76.9	78.3	78.9	80.2	80.1	56.5	58.6	60.8	62.6
45.5	77.4	78.0	79.4	79.9	81.3	81.1	56.8	58.8	61.0	62.7
46.0	78.5	79.1	80.4	81.0	82.3	82.1	57.1	59.0	61.2	62.9
46.5	79.6	80.2	81.5	82.0	83.3	83.2	57.3	59.3	61.4	63.0
47.0	80.7	81.2	82.5	83.0	84.3	84.1	57.6	59.5	61.5	63.2
47.5	81.7	82.3	83.5	84.0	85.2	85.1	57.8	59.7	61.7	63.3
48.0	82.7	83.3	84.5	85.0	86.1		58.0	59.8	61.8	63.4
48.5	83.7	84.3	85.4	85.9			58.2	60.0	61.9	63.5
49.0	84.7	85.2	86.3				58.4	60.1	62.0	
49.5	85.6	86.1					58.5	60.3		
50.0	86.5						58.7			

LBT IS	4.9	5	4.5	4.6	4.7	4.8	4.9	5	4.5	4.6
ΔH (kJ)	*DP*	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	469.4	470.5
0.5	-1.15	-0.98	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	469.4	470.4
1.0	-2.30	-1.95	-0.18	-0.18	-0.18	-0.18	-0.19	-0.17	469.3	470.3
1.5	-3.46	-2.95	-0.27	-0.27	-0.27	-0.27	-0.28	-0.26	469.2	470.2
2.0	-4.64	-3.98	-0.36	-0.36	-0.37	-0.37	-0.37	-0.35	469.1	470.2
2.5	-5.82	-5.01	-0.46	-0.45	-0.46	-0.47	-0.47	-0.44	469.0	470.1
3.0	-7.00	-6.03	-0.59	-0.55	-0.56	-0.56	-0.56	-0.53	468.8	470.0
3.5	-8.18	-7.04	-0.72	-0.68	-0.66	-0.66	-0.65	-0.61	468.7	469.8
4.0	-9.36	-8.05	-0.86	-0.81	-0.80	-0.75	-0.75	-0.70	468.6	469.7
4.5	-10.7	-9.06	-0.99	-0.94	-0.93	-0.88	-0.86	-0.79	468.5	469.6
5.0	-12.4	-8.06	-1.12	-1.08	-1.06	-1.02	-0.99	-0.71	468.3	469.4
5.5	-14.1	-5.92	-1.25	-1.21	-1.20	-1.15	-1.12	-0.54	468.2	469.3
6.0	-10.5	-3.58	-1.38	-1.34	-1.33	-1.28	-0.87	-0.33	468.1	469.2
6.5	-7.78	-1.36	-1.51	-1.47	-1.46	-1.42	-0.66	-0.13	467.9	469.0
7.0	-5.07	0.82	-1.64	-1.60	-1.59	-1.55	-0.44	0.08	467.8	468.9
7.5	-1.91	3.45	-1.77	-1.73	-1.72	-1.68	-0.17	0.35	467.7	468.8
8.0	1.00	5.89	-1.90	-1.86	-1.86	-1.81	0.09	0.61	467.5	468.7
8.5	3.70	8.16	-2.03	-1.99	-1.99	-1.43	0.36	0.87	467.4	468.5
9.0	6.19	10.3	-2.16	-2.12	-2.12	-1.17	0.62	1.13	467.3	468.4
9.5	8.39	12.2	-2.29	-2.25	-2.25	-0.90	0.86	1.37	467.2	468.3
10.0	10.4	13.9	-2.41	-2.38	-2.17	-0.66	1.09	1.60	467.0	468.1
10.5	12.3	15.5	-2.54	-2.51	-1.93	-0.42	1.32	1.82	466.9	468.0
11.0	14.1	17.0	-2.67	-2.64	-1.69	-0.18	1.55	2.05	466.8	467.9
11.5	15.7	18.5	-2.80	-2.77	-1.45	0.05	1.77	2.27	466.6	467.7
12.0	17.3	19.8	-2.93	-2.90	-1.22	0.28	1.99	2.48	466.5	467.6
12.5	18.8	21.1	-3.05	-2.71	-0.99	0.50	2.20	2.69	466.4	467.8
13.0	20.2	22.3	-3.18	-2.48	-0.77	0.72	2.41	2.90	466.3	468.0
13.5	22.2	24.0	-3.31	-2.25	-0.54	0.93	2.75	3.22	466.1	468.3
14.0	24.6	26.2	-3.43	-2.02	-0.33	1.20	3.17	3.64	466.0	468.5
14.5	26.8	28.2	-3.27	-1.80	0.02	1.62	3.60	4.07	466.2	468.7
15.0	28.8	30.1	-3.05	-1.52	0.44	2.05	4.02	4.49	466.4	469.0
15.5	30.7	31.8	-2.69	-1.09	0.87	2.47	4.44	4.92	466.8	469.4
16.0	32.5	33.4	-2.26	-0.67	1.29	2.90	4.87	5.34	467.2	469.8
16.5	34.1	34.9	-1.84	-0.24	1.72	3.32	5.29	5.76	467.6	470.3
17.0	35.7	36.3	-1.41	0.18	2.14	3.74	5.71	6.19	468.0	470.7
17.5	37.1	37.7	-0.99	0.61	2.56	4.17	6.14	6.61	468.5	471.1
18.0	38.5	38.9	-0.56	1.03	2.99	4.59	6.56	7.03	468.9	471.5
18.5	39.7	40.1	-0.14	1.45	3.41	5.01	6.98	7.45	469.3	472.0
19.0	40.9	41.2	0.28	1.87	3.83	5.43	7.40	7.87	469.7	472.4
19.5	42.0	42.3	0.70	2.30	4.25	5.86	7.82	8.30	470.1	472.8
20.0	43.1	43.3	1.13	2.72	4.67	6.28	8.25	8.72	470.6	473.2
20.5	44.1	44.3	1.55	3.14	5.10	6.70	8.67	9.14	471.0	473.7
21.0	45.1	45.2	1.97	3.56	5.52	7.12	9.09	9.56	471.4	474.1
21.5	46.0	46.0	2.39	3.98	5.94	7.54	9.51	9.98	471.8	474.5
22.0	46.8	46.9	2.81	4.41	6.36	7.96	9.93	10.4	472.3	474.9
22.5	47.7	47.6	3.24	4.83	6.78	8.38	10.3	10.8	472.7	475.3
23.0	48.4	48.4	3.66	5.25	7.20	8.80	10.8	11.2	473.1	475.8
23.5	49.2	49.1	4.08	5.67	7.62	9.22	11.2	11.7	473.5	476.2
24.0	49.9	49.8	4.50	6.09	8.04	9.64	11.6	12.1	473.9	476.6
24.5	50.6	50.4	4.92	6.51	8.46	10.1	12.0	12.5	474.4	477.0
25.0	51.2	51.1	5.34	6.93	8.88	10.5	12.4	12.9	474.8	477.4
25.5	51.8	51.7	5.76	7.34	9.30	10.9	12.9	13.3	475.2	477.9
26.0	52.4	52.2	6.17	7.76	9.71	11.3	13.3	13.7	475.6	478.3
26.5	53.0	52.8	6.59	8.18	10.1	11.7	13.7	14.2	476.0	478.7
27.0	53.6	53.3	7.01	8.60	10.5	12.1	14.1	14.6	476.5	479.1
27.5	54.1	53.8	7.43	9.02	11.0	12.6	14.5	15.0	476.9	479.5
28.0	54.6	54.3	7.85	9.43	11.4	13.0	14.9	15.4	477.3	479.9
28.5	55.1	54.8	8.26	9.85	11.8	13.4	15.4	15.8	477.7	480.4

LBT IS	4.9	5	4.5	4.6	4.7	4.8	4.9	5	4.5	4.6
ΔH (kJ)	*DP*	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*
29.0	55.6	55.3	8.68	10.3	12.2	13.8	15.8	16.2	478.1	480.8
29.5	56.0	55.7	9.10	10.7	12.6	14.2	16.2	16.7	478.5	481.2
30.0	56.4	56.1	9.51	11.1	13.0	14.6	16.6	17.1	479.0	481.6
30.5	56.9	56.5	9.93	11.5	13.5	15.1	17.0	17.5	479.4	482.0
31.0	57.3	56.9	10.3	11.9	13.9	15.5	17.4	17.9	479.8	482.4
31.5	57.6	57.3	10.8	12.3	14.3	15.9	17.8	18.3	480.2	482.9
32.0	58.0	57.7	11.2	12.8	14.7	16.3	18.3	18.7	480.6	483.3
32.5	58.4	58.0	11.6	13.2	15.1	16.7	18.7	19.1	481.0	483.7
33.0	58.7	58.4	12.0	13.6	15.5	17.1	19.1	19.6	481.4	484.1
33.5	59.1	58.7	12.4	14.0	15.9	17.5	19.5	20.0	481.9	484.5
34.0	59.4	59.0	12.8	14.4	16.4	17.9	19.9	20.4	482.3	484.9
34.5	59.7	59.4	13.2	14.8	16.8	18.4	20.3	20.8	482.7	485.3
35.0	60.0	59.7	13.7	15.2	17.2	18.8	20.7	21.2	483.1	485.8
35.5	60.3	60.0	14.1	15.6	17.6	19.2	21.1	21.6	483.5	486.2
36.0	60.6	60.2	14.5	16.1	18.0	19.6	21.5	22.0	483.9	486.6
36.5	60.9	60.5	14.9	16.5	18.4	20.0	21.9	22.4	484.3	487.0
37.0	61.2	60.8	15.3	16.9	18.8	20.4	22.4	22.8	484.7	487.4
37.5	61.4	61.1	15.7	17.3	19.2	20.8	22.8	23.2	485.1	487.8
38.0	61.7	61.3	16.1	17.7	19.6	21.2	23.2	23.6	485.6	488.2
38.5	61.9	61.6	16.5	18.1	20.0	21.6	23.6	24.0	486.0	488.6
39.0	62.2	61.8	16.9	18.5	20.4	22.0	24.0	24.4	486.4	489.0
39.5	62.4	62.0	17.3	18.9	20.8	22.4	24.4	24.8	486.8	489.4
40.0	62.6	62.2	17.7	19.3	21.2	22.8	24.8	25.2	487.2	489.8
40.5	62.9	62.5	18.1	19.7	21.6	23.2	25.2	25.6	487.6	490.2
41.0	63.1	62.7	18.5	20.1	22.0	23.6	25.6	26.0	488.0	490.6
41.5	63.3	62.9	18.9	20.5	22.4	24.0	26.0	26.4	488.4	491.0
42.0	63.5	63.1	19.3	20.9	22.8	24.4	26.4	26.8	488.8	491.4
42.5	63.7	63.3	19.7	21.3	23.2	24.8	26.7	27.2	489.2	491.8
43.0	63.8	63.4	20.1	21.7	23.6	25.2	27.1	27.6	489.6	492.2
43.5	64.0	63.6	20.5	22.1	24.0	25.6	27.5	28.0	490.0	492.6
44.0	64.2	63.8	20.9	22.5	24.4	26.0	27.9	28.4	490.4	493.0
44.5	64.3	63.9	21.3	22.9	24.8	26.4	28.3	28.7	490.8	493.4
45.0	64.5	64.1	21.7	23.3	25.2	26.7	28.6	29.1	491.2	493.8
45.5	64.6	64.2	22.1	23.7	25.5	27.1	29.0	29.4	491.5	494.2
46.0	64.7	64.4	22.5	24.0	25.9	27.5	29.3	29.8	491.9	494.5
46.5	64.9	64.5	22.8	24.4	26.3	27.8	29.6	30.1	492.3	494.9
47.0	65.0	64.6	23.2	24.7	26.6	28.1	30.0	30.4	492.6	495.3
47.5	65.0	64.7	23.6	25.1	26.9	28.5	30.2	30.7	493.0	495.6
48.0	65.1	64.7	23.9	25.4	27.2	28.8	30.5	31.0	493.3	495.9
48.5			24.2	25.7	27.5	29.0			493.7	496.3
49.0			24.5	26.0	27.8				494.0	496.6
49.5			24.8	26.3					494.3	496.8
50.0			25.1						494.5	

LBT IS

	4.7	4.8	4.9	5	4.5	4.6	4.7	4.8	4.9	5
ΔH (kJ)	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
0.0	471.5	472.6	473.6	475.5	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
0.5	471.4	472.5	473.5	475.4	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
1.0	471.3	472.4	473.4	475.3	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
1.5	471.2	472.3	473.3	475.2	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
2.0	471.2	472.2	473.2	475.1	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
2.5	471.1	472.1	473.1	475.1	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
3.0	471.0	472.0	473.0	475.0	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
3.5	470.9	471.9	472.9	474.9	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
4.0	470.7	471.8	472.8	474.8	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
4.5	470.6	471.7	472.7	474.7	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05
5.0	470.5	471.6	472.6	474.8	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.9E-05
5.5	470.3	471.4	472.5	475.0	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	1.9E-05
6.0	470.2	471.3	472.7	475.2	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.7E-05	2.0E-05
6.5	470.1	471.2	472.9	475.4	1.6E-05	1.6E-05	1.7E-05	1.7E-05	1.8E-05	2.0E-05
7.0	469.9	471.0	473.1	475.6	1.6E-05	1.6E-05	1.6E-05	1.7E-05	1.9E-05	2.1E-05
7.5	469.8	470.9	473.4	475.8	1.6E-05	1.6E-05	1.6E-05	1.7E-05	1.9E-05	2.1E-05
8.0	469.7	470.8	473.7	476.1	1.6E-05	1.6E-05	1.6E-05	1.7E-05	2.0E-05	2.2E-05
8.5	469.5	471.2	473.9	476.4	1.6E-05	1.6E-05	1.6E-05	1.7E-05	2.0E-05	2.2E-05
9.0	469.4	471.4	474.2	476.6	1.6E-05	1.6E-05	1.6E-05	1.8E-05	2.1E-05	2.3E-05
9.5	469.3	471.7	474.4	476.9	1.6E-05	1.6E-05	1.6E-05	1.9E-05	2.2E-05	2.4E-05
10.0	469.3	471.9	474.7	477.1	1.6E-05	1.6E-05	1.7E-05	1.9E-05	2.2E-05	2.4E-05
10.5	469.6	472.2	474.9	477.3	1.6E-05	1.6E-05	1.7E-05	2.0E-05	2.3E-05	2.5E-05
11.0	469.8	472.4	475.1	477.5	1.6E-05	1.6E-05	1.8E-05	2.0E-05	2.3E-05	2.5E-05
11.5	470.1	472.6	475.4	477.8	1.6E-05	1.6E-05	1.8E-05	2.1E-05	2.4E-05	2.6E-05
12.0	470.3	472.9	475.6	478.0	1.6E-05	1.6E-05	1.9E-05	2.1E-05	2.4E-05	2.6E-05
12.5	470.5	473.1	475.8	478.2	1.6E-05	1.7E-05	1.9E-05	2.2E-05	2.5E-05	2.7E-05
13.0	470.8	473.3	476.0	478.4	1.6E-05	1.7E-05	2.0E-05	2.2E-05	2.5E-05	2.7E-05
13.5	471.0	473.5	476.3	478.7	1.6E-05	1.8E-05	2.1E-05	2.3E-05	2.6E-05	2.8E-05
14.0	471.2	473.8	476.8	479.1	1.6E-05	1.8E-05	2.1E-05	2.4E-05	2.7E-05	2.9E-05
14.5	471.5	474.2	477.2	479.6	1.6E-05	1.9E-05	2.2E-05	2.5E-05	2.8E-05	3.0E-05
15.0	472.0	474.6	477.6	480.0	1.7E-05	1.9E-05	2.3E-05	2.6E-05	2.9E-05	3.1E-05
15.5	472.4	475.1	478.0	480.4	1.8E-05	2.1E-05	2.4E-05	2.7E-05	3.0E-05	3.2E-05
16.0	472.8	475.5	478.5	480.8	1.9E-05	2.2E-05	2.5E-05	2.8E-05	3.1E-05	3.3E-05
16.5	473.2	475.9	478.9	481.3	2.0E-05	2.3E-05	2.6E-05	2.9E-05	3.2E-05	3.4E-05
17.0	473.7	476.3	479.3	481.7	2.1E-05	2.4E-05	2.7E-05	3.0E-05	3.3E-05	3.5E-05
17.5	474.1	476.8	479.7	482.1	2.2E-05	2.5E-05	2.8E-05	3.1E-05	3.4E-05	3.6E-05
18.0	474.5	477.2	480.1	482.5	2.3E-05	2.6E-05	2.9E-05	3.2E-05	3.6E-05	3.7E-05
18.5	474.9	477.6	480.6	482.9	2.4E-05	2.7E-05	3.0E-05	3.3E-05	3.7E-05	3.8E-05
19.0	475.4	478.0	481.0	483.4	2.5E-05	2.8E-05	3.2E-05	3.4E-05	3.8E-05	4.0E-05
19.5	475.8	478.4	481.4	483.8	2.6E-05	2.9E-05	3.3E-05	3.5E-05	3.9E-05	4.1E-05
20.0	476.2	478.9	481.8	484.2	2.8E-05	3.0E-05	3.4E-05	3.6E-05	4.0E-05	4.2E-05
20.5	476.6	479.3	482.3	484.6	2.9E-05	3.1E-05	3.5E-05	3.7E-05	4.1E-05	4.3E-05
21.0	477.0	479.7	482.7	485.1	3.0E-05	3.2E-05	3.6E-05	3.8E-05	4.2E-05	4.4E-05
21.5	477.5	480.1	483.1	485.5	3.1E-05	3.3E-05	3.7E-05	3.9E-05	4.3E-05	4.5E-05
22.0	477.9	480.5	483.5	485.9	3.2E-05	3.5E-05	3.8E-05	4.1E-05	4.4E-05	4.6E-05
22.5	478.3	481.0	483.9	486.3	3.3E-05	3.6E-05	3.9E-05	4.2E-05	4.5E-05	4.7E-05
23.0	478.7	481.4	484.4	486.7	3.4E-05	3.7E-05	4.0E-05	4.3E-05	4.6E-05	4.8E-05
23.5	479.1	481.8	484.8	487.2	3.5E-05	3.8E-05	4.1E-05	4.4E-05	4.7E-05	4.9E-05
24.0	479.6	482.2	485.2	487.6	3.6E-05	3.9E-05	4.2E-05	4.5E-05	4.8E-05	5.0E-05
24.5	480.0	482.6	485.6	488.0	3.7E-05	4.0E-05	4.3E-05	4.6E-05	4.9E-05	5.1E-05
25.0	480.4	483.1	486.0	488.4	3.8E-05	4.1E-05	4.4E-05	4.7E-05	5.0E-05	5.2E-05
25.5	480.8	483.5	486.4	488.8	3.9E-05	4.2E-05	4.5E-05	4.8E-05	5.1E-05	5.3E-05
26.0	481.2	483.9	486.9	489.2	4.0E-05	4.3E-05	4.6E-05	4.9E-05	5.2E-05	5.4E-05
26.5	481.7	484.3	487.3	489.7	4.1E-05	4.4E-05	4.7E-05	5.0E-05	5.3E-05	5.5E-05
27.0	482.1	484.7	487.7	490.1	4.2E-05	4.5E-05	4.8E-05	5.1E-05	5.4E-05	5.6E-05
27.5	482.5	485.2	488.1	490.5	4.3E-05	4.6E-05	4.9E-05	5.2E-05	5.5E-05	5.7E-05
28.0	482.9	485.6	488.5	490.9	4.4E-05	4.7E-05	5.0E-05	5.3E-05	5.6E-05	5.8E-05
28.5	483.3	486.0	488.9	491.3	4.6E-05	4.8E-05	5.1E-05	5.4E-05	5.7E-05	5.9E-05

LBT IS

	4.7	4.8	4.9	5	4.5	4.6	4.7	4.8	4.9	5
ΔH (kJ)	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
29.0	483.7	486.4	489.4	491.7	4.7E-05	4.9E-05	5.2E-05	5.5E-05	5.8E-05	6.0E-05
29.5	484.2	486.8	489.8	492.2	4.8E-05	5.0E-05	5.3E-05	5.6E-05	5.9E-05	6.1E-05
30.0	484.6	487.2	490.2	492.6	4.9E-05	5.1E-05	5.4E-05	5.7E-05	6.0E-05	6.2E-05
30.5	485.0	487.6	490.6	493.0	5.0E-05	5.2E-05	5.5E-05	5.8E-05	6.1E-05	6.3E-05
31.0	485.4	488.1	491.0	493.4	5.1E-05	5.3E-05	5.6E-05	5.9E-05	6.2E-05	6.4E-05
31.5	485.8	488.5	491.4	493.8	5.2E-05	5.4E-05	5.7E-05	6.0E-05	6.3E-05	6.5E-05
32.0	486.2	488.9	491.8	494.2	5.3E-05	5.5E-05	5.8E-05	6.1E-05	6.4E-05	6.6E-05
32.5	486.6	489.3	492.3	494.6	5.4E-05	5.6E-05	5.9E-05	6.2E-05	6.5E-05	6.7E-05
33.0	487.1	489.7	492.7	495.0	5.5E-05	5.7E-05	6.0E-05	6.3E-05	6.6E-05	6.8E-05
33.5	487.5	490.1	493.1	495.5	5.6E-05	5.8E-05	6.1E-05	6.4E-05	6.7E-05	6.9E-05
34.0	487.9	490.5	493.5	495.9	5.7E-05	5.9E-05	6.2E-05	6.5E-05	6.8E-05	7.0E-05
34.5	488.3	490.9	493.9	496.3	5.8E-05	6.0E-05	6.3E-05	6.6E-05	6.9E-05	7.1E-05
35.0	488.7	491.4	494.3	496.7	5.9E-05	6.1E-05	6.4E-05	6.7E-05	7.0E-05	7.2E-05
35.5	489.1	491.8	494.7	497.1	6.0E-05	6.2E-05	6.5E-05	6.8E-05	7.1E-05	7.2E-05
36.0	489.5	492.2	495.1	497.5	6.1E-05	6.3E-05	6.6E-05	6.9E-05	7.2E-05	7.3E-05
36.5	489.9	492.6	495.5	497.9	6.2E-05	6.4E-05	6.7E-05	7.0E-05	7.3E-05	7.4E-05
37.0	490.3	493.0	495.9	498.3	6.3E-05	6.5E-05	6.8E-05	7.1E-05	7.4E-05	7.5E-05
37.5	490.7	493.4	496.3	498.7	6.4E-05	6.6E-05	6.9E-05	7.2E-05	7.5E-05	7.6E-05
38.0	491.1	493.8	496.8	499.1	6.5E-05	6.7E-05	7.0E-05	7.3E-05	7.6E-05	7.7E-05
38.5	491.6	494.2	497.2	499.5	6.6E-05	6.8E-05	7.1E-05	7.4E-05	7.7E-05	7.8E-05
39.0	492.0	494.6	497.6	499.9	6.7E-05	6.9E-05	7.2E-05	7.4E-05	7.7E-05	7.9E-05
39.5	492.4	495.0	498.0	500.3	6.8E-05	7.0E-05	7.3E-05	7.5E-05	7.8E-05	8.0E-05
40.0	492.8	495.4	498.4	500.7	6.9E-05	7.1E-05	7.4E-05	7.6E-05	7.9E-05	8.1E-05
40.5	493.2	495.8	498.8	501.1	7.0E-05	7.2E-05	7.5E-05	7.7E-05	8.0E-05	8.2E-05
41.0	493.6	496.2	499.2	501.5	7.1E-05	7.3E-05	7.6E-05	7.8E-05	8.1E-05	8.3E-05
41.5	494.0	496.6	499.5	501.9	7.2E-05	7.4E-05	7.7E-05	7.9E-05	8.2E-05	8.4E-05
42.0	494.4	497.0	499.9	502.3	7.3E-05	7.5E-05	7.8E-05	8.0E-05	8.3E-05	8.5E-05
42.5	494.8	497.4	500.3	502.7	7.4E-05	7.6E-05	7.9E-05	8.1E-05	8.4E-05	8.6E-05
43.0	495.2	497.8	500.7	503.1	7.4E-05	7.7E-05	8.0E-05	8.2E-05	8.5E-05	8.6E-05
43.5	495.5	498.2	501.1	503.5	7.5E-05	7.8E-05	8.1E-05	8.3E-05	8.6E-05	8.7E-05
44.0	495.9	498.6	501.5	503.9	7.6E-05	7.9E-05	8.2E-05	8.4E-05	8.7E-05	8.8E-05
44.5	496.3	498.9	501.8	504.2	7.7E-05	8.0E-05	8.2E-05	8.5E-05	8.8E-05	8.9E-05
45.0	496.7	499.3	502.2	504.6	7.8E-05	8.0E-05	8.3E-05	8.6E-05	8.8E-05	9.0E-05
45.5	497.1	499.7	502.6	504.9	7.9E-05	8.1E-05	8.4E-05	8.6E-05	8.9E-05	9.1E-05
46.0	497.4	500.0	502.9	505.3	8.0E-05	8.2E-05	8.5E-05	8.7E-05	9.0E-05	9.2E-05
46.5	497.8	500.4	503.2	505.6	8.1E-05	8.3E-05	8.6E-05	8.8E-05	9.1E-05	9.2E-05
47.0	498.1	500.7	503.5	505.9	8.2E-05	8.4E-05	8.7E-05	8.9E-05	9.2E-05	9.3E-05
47.5	498.4	501.0	503.8	506.2	8.3E-05	8.5E-05	8.8E-05	9.0E-05	9.2E-05	9.4E-05
48.0	498.8	501.3	504.1	506.5	8.4E-05	8.6E-05	8.8E-05	9.0E-05	9.3E-05	9.4E-05
48.5	499.0	501.6			8.4E-05	8.6E-05	8.9E-05	9.1E-05		
49.0	499.3				8.5E-05	8.7E-05	9.0E-05			
49.5					8.6E-05	8.8E-05				
50.0					8.6E-05					

LBT IS

	4.5	4.6	4.7	4.8	4.9	5
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
0.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.0E-03
0.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.0E-03
1.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.0E-03
1.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.1E-03
2.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.1E-03
2.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.1E-03
3.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.2E-03
3.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.2E-03
4.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.2E-03
4.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.3E-03
5.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.0E-03
5.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.3E-03
6.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-03	6.7E-03
6.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.0E-03	8.1E-03
7.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.5E-03	9.5E-03
7.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.1E-03	1.1E-02
8.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.8E-03	1.3E-02
8.5	0.0E+00	0.0E+00	0.0E+00	2.1E-03	9.4E-03	1.4E-02
9.0	0.0E+00	0.0E+00	0.0E+00	3.8E-03	1.1E-02	1.6E-02
9.5	0.0E+00	0.0E+00	0.0E+00	5.4E-03	1.3E-02	1.8E-02
10.0	0.0E+00	0.0E+00	8.4E-04	7.0E-03	1.4E-02	1.9E-02
10.5	0.0E+00	0.0E+00	2.4E-03	8.5E-03	1.6E-02	2.0E-02
11.0	0.0E+00	0.0E+00	3.9E-03	1.0E-02	1.7E-02	2.2E-02
11.5	0.0E+00	0.0E+00	5.4E-03	1.1E-02	1.8E-02	2.3E-02
12.0	0.0E+00	0.0E+00	6.9E-03	1.3E-02	2.0E-02	2.5E-02
12.5	0.0E+00	1.3E-03	8.4E-03	1.4E-02	2.1E-02	2.6E-02
13.0	0.0E+00	2.8E-03	9.9E-03	1.6E-02	2.3E-02	2.8E-02
13.5	0.0E+00	4.3E-03	1.1E-02	1.7E-02	2.5E-02	3.0E-02
14.0	0.0E+00	5.8E-03	1.3E-02	1.9E-02	2.8E-02	3.3E-02
14.5	1.2E-03	7.2E-03	1.5E-02	2.2E-02	3.1E-02	3.6E-02
15.0	2.7E-03	9.1E-03	1.8E-02	2.5E-02	3.4E-02	3.8E-02
15.5	5.2E-03	1.2E-02	2.1E-02	2.8E-02	3.7E-02	4.1E-02
16.0	8.2E-03	1.5E-02	2.4E-02	3.1E-02	4.0E-02	4.4E-02
16.5	1.1E-02	1.8E-02	2.7E-02	3.4E-02	4.2E-02	4.7E-02
17.0	1.4E-02	2.1E-02	3.0E-02	3.7E-02	4.5E-02	5.0E-02
17.5	1.7E-02	2.4E-02	3.3E-02	4.0E-02	4.8E-02	5.3E-02
18.0	2.0E-02	2.7E-02	3.6E-02	4.3E-02	5.1E-02	5.6E-02
18.5	2.3E-02	3.0E-02	3.9E-02	4.5E-02	5.4E-02	5.9E-02
19.0	2.6E-02	3.3E-02	4.2E-02	4.8E-02	5.7E-02	6.1E-02
19.5	2.9E-02	3.6E-02	4.5E-02	5.1E-02	6.0E-02	6.4E-02
20.0	3.2E-02	3.9E-02	4.8E-02	5.4E-02	6.3E-02	6.7E-02
20.5	3.5E-02	4.2E-02	5.0E-02	5.7E-02	6.6E-02	7.0E-02
21.0	3.8E-02	4.5E-02	5.3E-02	6.0E-02	6.8E-02	7.3E-02
21.5	4.1E-02	4.8E-02	5.6E-02	6.3E-02	7.1E-02	7.6E-02
22.0	4.4E-02	5.1E-02	5.9E-02	6.6E-02	7.4E-02	7.8E-02
22.5	4.7E-02	5.3E-02	6.2E-02	6.8E-02	7.7E-02	8.1E-02
23.0	5.0E-02	5.6E-02	6.5E-02	7.1E-02	8.0E-02	8.4E-02
23.5	5.3E-02	5.9E-02	6.8E-02	7.4E-02	8.3E-02	8.7E-02
24.0	5.6E-02	6.2E-02	7.1E-02	7.7E-02	8.5E-02	9.0E-02
24.5	5.8E-02	6.5E-02	7.3E-02	8.0E-02	8.8E-02	9.2E-02
25.0	6.1E-02	6.8E-02	7.6E-02	8.3E-02	9.1E-02	9.5E-02
25.5	6.4E-02	7.1E-02	7.9E-02	8.5E-02	9.4E-02	9.8E-02
26.0	6.7E-02	7.4E-02	8.2E-02	8.8E-02	9.7E-02	0.10
26.5	7.0E-02	7.6E-02	8.5E-02	9.1E-02	9.9E-02	0.10
27.0	7.3E-02	7.9E-02	8.8E-02	9.4E-02	0.10	0.11
27.5	7.6E-02	8.2E-02	9.0E-02	9.7E-02	0.10	0.11
28.0	7.9E-02	8.5E-02	9.3E-02	9.9E-02	0.11	0.11
28.5	8.1E-02	8.8E-02	9.6E-02	0.10	0.11	0.11

LBT IS

	4.5	4.6	4.7	4.8	4.9	5
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*	*Porosity*
29.0	8.4E-02	9.1E-02	9.9E-02	0.11	0.11	0.12
29.5	8.7E-02	9.3E-02	0.10	0.11	0.12	0.12
30.0	9.0E-02	9.6E-02	0.10	0.11	0.12	0.12
30.5	9.3E-02	9.9E-02	0.11	0.11	0.12	0.13
31.0	9.6E-02	0.10	0.11	0.12	0.12	0.13
31.5	9.8E-02	0.10	0.11	0.12	0.13	0.13
32.0	0.10	0.11	0.12	0.12	0.13	0.13
32.5	0.10	0.11	0.12	0.12	0.13	0.14
33.0	0.11	0.11	0.12	0.13	0.13	0.14
33.5	0.11	0.12	0.12	0.13	0.14	0.14
34.0	0.11	0.12	0.13	0.13	0.14	0.14
34.5	0.12	0.12	0.13	0.14	0.14	0.15
35.0	0.12	0.12	0.13	0.14	0.15	0.15
35.5	0.12	0.13	0.13	0.14	0.15	0.15
36.0	0.12	0.13	0.14	0.14	0.15	0.15
36.5	0.13	0.13	0.14	0.15	0.15	0.16
37.0	0.13	0.13	0.14	0.15	0.16	0.16
37.5	0.13	0.14	0.15	0.15	0.16	0.16
38.0	0.13	0.14	0.15	0.15	0.16	0.17
38.5	0.14	0.14	0.15	0.16	0.16	0.17
39.0	0.14	0.15	0.15	0.16	0.17	0.17
39.5	0.14	0.15	0.16	0.16	0.17	0.17
40.0	0.15	0.15	0.16	0.16	0.17	0.18
40.5	0.15	0.15	0.16	0.17	0.17	0.18
41.0	0.15	0.16	0.16	0.17	0.18	0.18
41.5	0.15	0.16	0.17	0.17	0.18	0.18
42.0	0.16	0.16	0.17	0.17	0.18	0.19
42.5	0.16	0.16	0.17	0.18	0.18	0.19
43.0	0.16	0.17	0.17	0.18	0.19	0.19
43.5	0.16	0.17	0.18	0.18	0.19	0.19
44.0	0.17	0.17	0.18	0.19	0.19	0.20
44.5	0.17	0.17	0.18	0.19	0.19	0.20
45.0	0.17	0.18	0.18	0.19	0.20	0.20
45.5	0.17	0.18	0.19	0.19	0.20	0.20
46.0	0.18	0.18	0.19	0.19	0.20	0.21
46.5	0.18	0.18	0.19	0.20	0.20	0.21
47.0	0.18	0.19	0.19	0.20	0.21	0.21
47.5	0.18	0.19	0.20	0.20	0.21	0.21
48.0	0.19	0.19	0.20	0.20	0.21	0.21
48.5	0.19	0.19	0.20	0.21		
49.0	0.19	0.20	0.20			
49.5	0.19	0.20				
50.0	0.19					

ISENTHALPIC MASTER SHEET 9

PST ISENTHALPIC DATA

	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7	5.8	5.85
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*
0.0	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.03	0.03	0.02	0.02	0.01	0.01	-1.23	-1.20	-1.21	-1.21	-1.22
1.0	0.05	0.05	0.05	0.04	0.03	0.03	-2.45	-2.41	-2.42	-2.42	-2.43
1.5	0.07	0.07	0.07	0.06	0.05	0.05	-3.65	-3.62	-3.63	-3.63	-3.64
2.0	0.09	0.09	0.09	0.09	0.07	0.07	-4.85	-4.83	-4.84	-4.85	-4.85
2.5	0.12	0.11	0.11	0.11	0.09	0.09	-6.06	-6.04	-6.05	-6.06	-6.07
3.0	0.14	0.13	0.13	0.13	0.11	0.11	-7.26	-7.25	-7.26	-7.27	-7.28
3.5	0.16	0.15	0.15	0.15	0.13	0.13	-8.47	-8.47	-8.48	-8.49	-8.50
4.0	0.18	0.17	0.17	0.17	0.15	0.15	-9.68	-9.68	-9.69	-9.71	-9.72
4.5	0.20	0.19	0.19	0.19	0.17	0.17	-10.9	-10.9	-10.9	-10.9	-10.9
5.0	0.22	0.21	0.21	0.21	0.19	0.19	-12.1	-12.1	-12.1	-12.1	-12.2
5.5	0.24	0.23	0.23	0.23	0.21	0.21	-13.3	-13.3	-13.3	-13.4	-13.4
6.0	0.26	0.25	0.25	0.25	0.23	0.23	-14.5	-14.5	-14.6	-14.6	-14.6
6.5	0.28	0.27	0.27	0.27	0.25	0.25	-15.7	-15.7	-15.8	-15.8	-15.8
7.0	0.30	0.29	0.29	0.29	0.27	0.27	-16.9	-17.0	-17.0	-17.0	-17.0
7.5	0.32	0.31	0.31	0.31	0.29	0.29	-18.2	-18.2	-18.2	-18.2	-18.2
8.0	0.34	0.33	0.33	0.33	0.31	0.31	-19.4	-19.4	-19.4	-19.4	-19.4
8.5	0.66	0.35	0.35	0.35	0.33	0.33	-21.0	-20.6	-20.6	-20.6	-20.6
9.0	0.90	0.37	0.37	0.37	0.35	0.35	-22.5	-21.8	-21.8	-21.8	-21.9
9.5	1.19	0.67	0.39	0.39	0.37	0.37	-24.1	-23.4	-23.0	-23.0	-23.1
10.0	1.52	0.96	0.41	0.41	0.39	0.39	-25.7	-24.9	-24.2	-24.3	-24.3
10.5	1.86	1.30	0.74	0.43	0.41	0.41	-27.4	-26.6	-25.9	-25.5	-25.5
11.0	2.20	1.63	1.08	0.53	0.43	0.43	-29.0	-28.2	-27.5	-26.8	-26.7
11.5	2.54	1.97	1.42	0.87	0.45	0.45	-30.7	-29.9	-29.1	-28.4	-28.0
12.0	2.87	2.30	1.75	1.21	0.83	0.81	-32.4	-31.5	-30.8	-30.1	-26.2
12.5	3.21	2.63	2.09	1.76	1.36	1.34	-34.1	-33.2	-32.4	-26.3	-23.2
13.0	3.54	2.96	2.42	2.30	1.89	1.87	-35.7	-34.8	-34.1	-23.3	-20.3
13.5	3.87	3.29	2.87	2.82	2.42	2.40	-37.4	-36.5	-32.7	-20.4	-17.5
14.0	4.23	3.62	3.40	3.35	2.95	2.93	-39.3	-38.1	-29.5	-17.6	-14.8
14.5	4.79	3.95	3.92	3.87	3.47	3.45	-42.0	-39.8	-26.4	-15.0	-12.3
15.0	5.35	5.06	4.96	4.86	4.03	3.99	-44.7	-34.0	-21.9	-11.1	-9.68
15.5	6.26	6.15	6.06	5.95	5.12	5.08	-41.9	-29.0	-17.5	-7.31	-5.90
16.0	7.35	7.25	7.15	7.05	6.22	6.17	-36.4	-24.3	-13.4	-3.69	-2.35
16.5	8.45	8.34	8.24	8.14	7.31	7.26	-31.3	-19.8	-9.50	-0.27	1.02
17.0	9.54	9.43	9.34	9.23	8.40	8.35	-26.5	-15.6	-5.83	2.96	4.20
17.5	10.6	10.5	10.4	10.3	9.49	9.44	-22.1	-11.7	-2.37	6.03	7.21
18.0	11.7	11.6	11.5	11.4	10.6	10.5	-17.8	-8.01	0.90	8.93	10.1
18.5	12.8	12.7	12.6	12.5	11.7	11.6	-13.9	-4.50	4.00	11.7	12.8
19.0	13.9	13.8	13.7	13.6	12.8	12.7	-10.1	-1.19	6.95	14.3	15.4
19.5	15.0	14.9	14.8	14.7	13.9	13.8	-6.58	1.96	9.75	16.8	17.8
20.0	16.1	16.0	15.9	15.8	14.9	14.9	-3.22	4.94	12.4	19.2	20.2
20.5	17.2	17.1	17.0	16.9	16.0	16.0	-0.04	7.78	14.9	21.5	22.4
21.0	18.3	18.2	18.1	18.0	17.1	17.1	2.98	10.5	17.4	23.7	24.6
21.5	19.4	19.3	19.2	19.0	18.2	18.2	5.85	13.0	19.7	25.7	26.6
22.0	20.5	20.4	20.3	20.1	19.3	19.2	8.58	15.5	21.9	27.7	28.6
22.5	21.6	21.5	21.3	21.2	20.4	20.3	11.2	17.8	24.0	29.6	30.5
23.0	22.7	22.5	22.4	22.3	21.5	21.4	13.7	20.1	26.0	31.5	32.3
23.5	23.8	23.6	23.5	23.4	22.6	22.5	16.0	22.2	27.9	33.2	34.0
24.0	24.8	24.7	24.6	24.5	23.7	23.6	18.3	24.3	29.8	34.9	35.7
24.5	25.9	25.8	25.7	25.6	24.7	24.7	20.5	26.2	31.6	36.5	37.3
25.0	27.0	26.9	26.8	26.7	25.8	25.8	22.6	28.1	33.3	38.1	38.8
25.5	28.1	28.0	27.9	27.8	26.9	26.9	24.5	29.9	34.9	39.6	40.3
26.0	29.2	29.1	29.0	28.8	28.0	27.9	26.5	31.7	36.5	41.1	41.7
26.5	30.3	30.2	30.1	29.9	29.1	29.0	28.3	33.3	38.1	42.4	43.1
27.0	31.4	31.3	31.1	31.0	30.2	30.1	30.1	34.9	39.5	43.8	44.5
27.5	32.5	32.3	32.2	32.1	31.3	31.2	31.7	36.5	40.9	45.1	45.7
28.0	33.6	33.4	33.3	33.2	32.3	32.3	33.4	38.0	42.3	46.3	47.0
28.5	34.7	34.5	34.4	34.3	33.4	33.4	34.9	39.4	43.6	47.6	48.2

PST ISENTHALPIC DATA

	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7	5.8	5.85
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*DP*	*DP*	*DP*	*DP*	*DP*
29.0	35.7	35.6	35.5	35.4	34.5	34.5	36.5	40.8	44.9	48.7	49.3
29.5	36.8	36.7	36.6	36.4	35.6	35.5	37.9	42.1	46.1	49.9	50.5
30.0	37.9	37.8	37.6	37.5	36.7	36.6	39.3	43.4	47.3	51.0	51.5
30.5	39.0	38.9	38.7	38.6	37.8	37.7	40.7	44.7	48.5	52.0	52.6
31.0	40.1	39.9	39.8	39.7	38.8	38.8	42.0	45.9	49.6	53.0	53.6
31.5	41.2	41.0	40.9	40.8	39.9	39.9	43.2	47.1	50.6	54.0	54.6
32.0	42.2	42.1	42.0	41.8	41.0	40.9	44.5	48.2	51.7	55.0	55.5
32.5	43.3	43.2	43.1	42.9	42.1	42.0	45.7	49.3	52.7	55.9	56.5
33.0	44.4	44.3	44.1	44.0	43.2	43.1	46.8	50.3	53.7	56.8	57.4
33.5	45.5	45.3	45.2	45.1	44.2	44.2	47.9	51.4	54.6	57.7	58.2
34.0	46.6	46.4	46.3	46.1	45.3	45.2	49.0	52.3	55.5	58.6	59.1
34.5	47.6	47.5	47.4	47.2	46.4	46.3	50.0	53.3	56.4	59.4	59.9
35.0	48.7	48.6	48.4	48.3	47.5	47.4	51.0	54.2	57.3	60.2	60.7
35.5	49.8	49.6	49.5	49.4	48.5	48.5	52.0	55.1	58.1	61.0	61.5
36.0	50.9	50.7	50.6	50.4	49.6	49.5	52.9	56.0	59.0	61.7	62.2
36.5	51.9	51.8	51.7	51.5	50.7	50.6	53.8	56.9	59.7	62.5	62.9
37.0	53.0	52.9	52.7	52.6	51.7	51.7	54.7	57.7	60.5	63.2	63.6
37.5	54.1	53.9	53.8	53.6	52.8	52.7	55.6	58.5	61.3	63.9	64.3
38.0	55.1	55.0	54.8	54.7	53.9	53.8	56.4	59.3	62.0	64.5	65.0
38.5	56.2	56.0	55.9	55.8	54.9	54.9	57.2	60.0	62.7	65.2	65.6
39.0	57.3	57.1	57.0	56.8	56.0	55.9	58.0	60.7	63.4	65.8	66.3
39.5	58.3	58.2	58.0	57.9	57.0	57.0	58.8	61.5	64.0	66.5	66.9
40.0	59.4	59.2	59.1	58.9	58.1	58.0	59.5	62.1	64.7	67.1	67.5
40.5	60.4	60.3	60.1	60.0	59.1	59.1	60.2	62.8	65.3	67.6	68.1
41.0	61.5	61.3	61.2	61.0	60.2	60.1	60.9	63.5	65.9	68.2	68.6
41.5	62.5	62.4	62.2	62.1	61.2	61.2	61.6	64.1	66.5	68.7	69.2
42.0	63.6	63.4	63.2	63.1	62.3	62.2	62.2	64.7	67.0	69.3	69.7
42.5	64.6	64.4	64.3	64.1	63.3	63.2	62.9	65.3	67.6	69.8	70.2
43.0	65.6	65.4	65.3	65.1	64.3	64.3	63.5	65.8	68.1	70.3	70.7
43.5	66.6	66.5	66.3	66.2	65.4	65.3	64.0	66.4	68.6	70.8	71.2
44.0	67.6	67.5	67.3	67.2	66.4	66.3	64.6	66.9	69.1	71.2	71.6
44.5	68.6	68.5	68.3	68.2	67.4	67.3	65.1	67.4	69.6	71.7	72.1
45.0	69.6	69.5	69.3	69.2	68.4	68.3	65.7	67.9	70.0	72.1	72.5
45.5	70.6	70.5	70.3	70.2	69.4	69.3	66.2	68.4	70.5	72.5	72.9
46.0	71.6	71.4	71.3	71.1	70.4	70.3	66.6	68.8	70.9	72.9	73.3
46.5	72.6	72.4	72.2	72.1	71.3	71.2	67.1	69.2	71.3	73.2	73.7
47.0	73.5	73.3	73.2	73.0	72.3	72.2	67.5	69.6	71.6	73.6	74.0
47.5	74.4	74.3	74.1	74.0	73.2	73.1	67.9	70.0	72.0	73.9	74.4
48.0	75.3	75.2	75.0	74.9	74.1	74.1	68.3	70.3	72.3	74.2	74.7
48.5	76.2	76.1	75.9	75.8	75.0	75.0	68.6	70.7	72.6	74.5	75.0
49.0	77.1	76.9	76.8	76.6	75.9	75.9	68.9	71.0	72.9	74.8	75.2
49.5	77.9	77.8	77.6	77.5	76.8	76.7	69.2	71.2	73.1	75.0	75.5
50.0	78.7	78.6	78.4	78.3	77.6	77.6	69.5	71.5	73.4	75.2	75.7
50.5	79.5	79.4	79.2	79.1	78.4	78.4	69.7	71.7	73.6	75.4	75.9
51.0	80.3	80.1	80.0	79.8	79.2	79.2	69.9	71.8	73.7	75.5	76.0
51.5	81.0	80.9	80.7	80.6	80.0	79.9	70.0	72.0	73.8	75.6	76.2
52.0	81.7	81.5	81.4	81.3	80.7	80.6	70.2	72.1	73.9	75.7	76.3
52.5	82.3	82.2	82.1	81.9	81.4	81.3	70.2	72.2	74.0	75.8	76.4
53.0	83.0	82.8	82.7	82.5	82.0	82.0	70.3	72.2	74.0	75.8	76.4
53.5	83.5	83.4	83.3	83.1	82.6	82.6	70.3	72.2	74.0	75.8	76.4
54.0	84.1	83.9	83.8	83.7	83.2	83.1	70.3	72.2	74.0	75.8	76.4
54.5	84.6	84.4	84.3	84.2	83.7	83.7	70.2	72.1	73.9	75.7	76.4
55.0	85.0	84.9	84.8	84.6	84.2	84.2	70.1	72.0	73.8	75.6	76.3
55.5	85.5	85.3	85.2	85.1	84.7	84.6	70.0	71.9	73.7	75.5	76.2
56.0					85.1	85.1					894.8

PST ISE	5.9	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7	5.8
ΔH (kJ)	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	473.4	474.4	475.5	476.6
0.5	-1.15	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	473.3	474.3	475.4	476.5
1.0	-2.29	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	473.2	474.2	475.3	476.4
1.5	-3.40	-0.30	-0.30	-0.30	-0.30	-0.31	-0.29	473.1	474.1	475.2	476.3
2.0	-4.51	-0.39	-0.40	-0.40	-0.41	-0.41	-0.39	473.0	474.0	475.1	476.2
2.5	-5.61	-0.49	-0.50	-0.50	-0.51	-0.51	-0.48	472.9	473.9	475.0	476.1
3.0	-6.71	-0.59	-0.59	-0.60	-0.61	-0.61	-0.58	472.8	473.8	474.9	476.0
3.5	-7.80	-0.69	-0.69	-0.70	-0.71	-0.71	-0.67	472.7	473.7	474.8	475.9
4.0	-8.89	-0.78	-0.79	-0.80	-0.81	-0.82	-0.77	472.6	473.6	474.7	475.8
4.5	-9.97	-0.88	-0.89	-0.90	-0.91	-0.92	-0.86	472.5	473.5	474.6	475.7
5.0	-11.1	-0.98	-0.99	-1.00	-1.01	-1.02	-0.95	472.4	473.4	474.5	475.6
5.5	-12.1	-1.07	-1.09	-1.10	-1.11	-1.12	-1.04	472.3	473.3	474.4	475.5
6.0	-13.2	-1.17	-1.19	-1.20	-1.21	-1.22	-1.14	472.2	473.3	474.3	475.4
6.5	-14.3	-1.27	-1.28	-1.30	-1.31	-1.32	-1.23	472.1	473.2	474.2	475.3
7.0	-15.4	-1.36	-1.38	-1.39	-1.41	-1.42	-1.32	472.0	473.1	474.1	475.2
7.5	-16.4	-1.46	-1.48	-1.49	-1.51	-1.52	-1.41	471.9	473.0	474.0	475.1
8.0	-17.5	-1.56	-1.57	-1.59	-1.61	-1.62	-1.50	471.8	472.9	473.9	475.0
8.5	-18.5	-1.68	-1.67	-1.69	-1.71	-1.72	-1.59	471.7	472.8	473.8	474.9
9.0	-19.6	-1.80	-1.77	-1.79	-1.81	-1.82	-1.68	471.6	472.7	473.7	474.8
9.5	-20.6	-1.93	-1.89	-1.88	-1.90	-1.92	-1.77	471.4	472.5	473.6	474.7
10.0	-21.7	-2.05	-2.02	-1.98	-2.00	-2.02	-1.86	471.3	472.4	473.5	474.6
10.5	-22.7	-2.18	-2.14	-2.11	-2.10	-2.12	-1.95	471.2	472.3	473.4	474.5
11.0	-23.7	-2.31	-2.27	-2.24	-2.21	-2.22	-2.03	471.0	472.2	473.3	474.4
11.5	-24.7	-2.44	-2.40	-2.37	-2.34	-2.32	-2.12	470.9	472.0	473.1	474.3
12.0	-23.6	-2.57	-2.53	-2.50	-2.47	-2.20	-2.04	470.8	471.9	473.0	474.1
12.5	-20.8	-2.70	-2.66	-2.63	-2.21	-1.99	-1.83	470.7	471.8	472.9	474.4
13.0	-18.0	-2.83	-2.79	-2.76	-1.99	-1.77	-1.61	470.5	471.7	472.8	474.6
13.5	-15.3	-2.96	-2.91	-2.67	-1.77	-1.55	-1.40	470.4	471.5	472.8	474.8
14.0	-12.8	-3.09	-3.04	-2.46	-1.56	-1.34	-1.19	470.3	471.4	473.1	475.0
14.5	-10.3	-3.30	-3.17	-2.25	-1.35	-1.13	-0.98	470.1	471.3	473.3	475.3
15.0	-7.92	-3.51	-2.81	-1.92	-1.04	-0.90	-0.76	469.8	471.6	473.6	475.6
15.5	-4.29	-3.36	-2.47	-1.58	-0.70	-0.57	-0.42	470.0	472.0	473.9	475.9
16.0	-0.87	-3.02	-2.14	-1.25	-0.36	-0.23	-0.09	470.3	472.3	474.3	476.2
16.5	2.37	-2.69	-1.80	-0.91	-0.03	0.10	0.25	470.7	472.6	474.6	476.6
17.0	5.44	-2.35	-1.47	-0.58	0.31	0.44	0.58	471.0	473.0	474.9	476.9
17.5	8.35	-2.01	-1.13	-0.24	0.64	0.77	0.92	471.3	473.3	475.3	477.2
18.0	11.1	-1.68	-0.79	0.09	0.98	1.11	1.25	471.7	473.6	475.6	477.6
18.5	13.8	-1.34	-0.46	0.43	1.31	1.45	1.59	472.0	474.0	475.9	477.9
19.0	16.3	-1.01	-0.12	0.76	1.65	1.78	1.92	472.3	474.3	476.3	478.3
19.5	18.7	-0.67	0.21	1.10	1.98	2.12	2.26	472.7	474.6	476.6	478.6
20.0	20.9	-0.34	0.55	1.43	2.32	2.45	2.59	473.0	475.0	477.0	478.9
20.5	23.1	0.00	0.88	1.77	2.65	2.79	2.93	473.4	475.3	477.3	479.3
21.0	25.2	0.33	1.21	2.10	2.99	3.12	3.26	473.7	475.7	477.6	479.6
21.5	27.2	0.66	1.55	2.44	3.32	3.45	3.60	474.0	476.0	478.0	479.9
22.0	29.1	1.00	1.88	2.77	3.66	3.79	3.93	474.4	476.3	478.3	480.3
22.5	31.0	1.33	2.22	3.11	3.99	4.12	4.27	474.7	476.7	478.6	480.6
23.0	32.7	1.67	2.55	3.44	4.32	4.46	4.60	475.0	477.0	479.0	480.9
23.5	34.4	2.00	2.88	3.77	4.66	4.79	4.93	475.4	477.3	479.3	481.3
24.0	36.0	2.33	3.22	4.11	4.99	5.12	5.27	475.7	477.7	479.6	481.6
24.5	37.6	2.67	3.55	4.44	5.32	5.46	5.60	476.0	478.0	480.0	481.9
25.0	39.1	3.00	3.88	4.77	5.66	5.79	5.93	476.4	478.3	480.3	482.3
25.5	40.6	3.33	4.22	5.10	5.99	6.12	6.27	476.7	478.7	480.6	482.6
26.0	42.0	3.66	4.55	5.44	6.32	6.45	6.60	477.0	479.0	481.0	482.9
26.5	43.3	4.00	4.88	5.77	6.65	6.79	6.93	477.4	479.3	481.3	483.3
27.0	44.6	4.33	5.21	6.10	6.98	7.12	7.26	477.7	479.6	481.6	483.6
27.5	45.9	4.66	5.54	6.43	7.32	7.45	7.59	478.0	480.0	481.9	483.9
28.0	47.1	4.99	5.87	6.76	7.65	7.78	7.92	478.3	480.3	482.3	484.2
28.5	48.3	5.32	6.20	7.09	7.98	8.11	8.26	478.7	480.6	482.6	484.6

ISENTHALPIC MASTER SHEET 9

PST ISE	5.9	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7	5.8
ΔH (kJ)	*DP*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*V*	*V*	*V*	*V*
29.0	49.4	5.65	6.54	7.42	8.31	8.44	8.59	479.0	481.0	482.9	484.9
29.5	50.5	5.98	6.87	7.75	8.64	8.77	8.92	479.3	481.3	483.3	485.2
30.0	51.6	6.31	7.20	8.08	8.97	9.10	9.25	479.7	481.6	483.6	485.6
30.5	52.6	6.64	7.52	8.41	9.30	9.43	9.58	480.0	482.0	483.9	485.9
31.0	53.6	6.97	7.85	8.74	9.63	9.76	9.90	480.3	482.3	484.3	486.2
31.5	54.6	7.30	8.18	9.07	9.95	10.1	10.2	480.7	482.6	484.6	486.6
32.0	55.5	7.63	8.51	9.40	10.3	10.4	10.6	481.0	482.9	484.9	486.9
32.5	56.4	7.95	8.84	9.72	10.6	10.7	10.9	481.3	483.3	485.2	487.2
33.0	57.3	8.28	9.16	10.1	10.9	11.1	11.2	481.6	483.6	485.6	487.5
33.5	58.2	8.61	9.49	10.4	11.3	11.4	11.5	482.0	483.9	485.9	487.9
34.0	59.0	8.93	9.81	10.7	11.6	11.7	11.9	482.3	484.3	486.2	488.2
34.5	59.8	9.26	10.1	11.0	11.9	12.1	12.2	482.6	484.6	486.5	488.5
35.0	60.6	9.58	10.5	11.4	12.2	12.4	12.5	482.9	484.9	486.9	488.8
35.5	61.4	9.90	10.8	11.7	12.6	12.7	12.8	483.3	485.2	487.2	489.2
36.0	62.1	10.2	11.1	12.0	12.9	13.0	13.2	483.6	485.5	487.5	489.5
36.5	62.8	10.5	11.4	12.3	13.2	13.3	13.5	483.9	485.9	487.8	489.8
37.0	63.5	10.9	11.8	12.6	13.5	13.7	13.8	484.2	486.2	488.2	490.1
37.5	64.2	11.2	12.1	13.0	13.8	14.0	14.1	484.5	486.5	488.5	490.4
38.0	64.9	11.5	12.4	13.3	14.2	14.3	14.4	484.9	486.8	488.8	490.8
38.5	65.5	11.8	12.7	13.6	14.5	14.6	14.8	485.2	487.1	489.1	491.1
39.0	66.1	12.1	13.0	13.9	14.8	14.9	15.1	485.5	487.5	489.4	491.4
39.5	66.8	12.5	13.3	14.2	15.1	15.3	15.4	485.8	487.8	489.7	491.7
40.0	67.3	12.8	13.6	14.5	15.4	15.6	15.7	486.1	488.1	490.1	492.0
40.5	67.9	13.1	14.0	14.8	15.7	15.9	16.0	486.4	488.4	490.4	492.3
41.0	68.5	13.4	14.3	15.2	16.0	16.2	16.3	486.7	488.7	490.7	492.6
41.5	69.0	13.7	14.6	15.5	16.3	16.5	16.6	487.0	489.0	491.0	492.9
42.0	69.5	14.0	14.9	15.8	16.6	16.8	16.9	487.3	489.3	491.3	493.2
42.5	70.0	14.3	15.2	16.1	16.9	17.1	17.2	487.6	489.6	491.6	493.5
43.0	70.5	14.6	15.5	16.4	17.2	17.4	17.5	487.9	489.9	491.9	493.8
43.5	71.0	14.9	15.8	16.6	17.5	17.7	17.8	488.2	490.2	492.2	494.1
44.0	71.5	15.2	16.1	16.9	17.8	18.0	18.1	488.5	490.5	492.5	494.4
44.5	71.9	15.5	16.3	17.2	18.1	18.3	18.4	488.8	490.8	492.7	494.7
45.0	72.3	15.7	16.6	17.5	18.4	18.6	18.7	489.1	491.1	493.0	495.0
45.5	72.7	16.0	16.9	17.8	18.7	18.8	19.0	489.4	491.3	493.3	495.3
46.0	73.1	16.3	17.2	18.0	18.9	19.1	19.3	489.6	491.6	493.6	495.5
46.5	73.5	16.5	17.4	18.3	19.2	19.4	19.5	489.9	491.9	493.8	495.8
47.0	73.8	16.8	17.7	18.6	19.4	19.6	19.8	490.1	492.1	494.1	496.0
47.5	74.2	17.0	17.9	18.8	19.7	19.9	20.0	490.4	492.4	494.3	496.3
48.0	74.5	17.3	18.2	19.0	19.9	20.1	20.3	490.6	492.6	494.6	496.5
48.5	74.8	17.5	18.4	19.3	20.2	20.4	20.5	490.8	492.8	494.8	496.8
49.0	75.0	17.7	18.6	19.5	20.4	20.6	20.7	491.1	493.0	495.0	497.0
49.5	75.3	17.9	18.8	19.7	20.6	20.8	20.9	491.3	493.2	495.2	497.2
50.0	75.5	18.1	19.0	19.9	20.8	21.0	21.1	491.4	493.4	495.4	497.4
50.5	75.7	18.3	19.1	20.0	20.9	21.2	21.3	491.6	493.6	495.6	497.5
51.0	75.9	18.4	19.3	20.2	21.1	21.3	21.5	491.8	493.7	495.7	497.7
51.5	76.0	18.5	19.4	20.3	21.2	21.5	21.6	491.9	493.9	495.8	497.8
52.0	76.1	18.7	19.6	20.4	21.3	21.6	21.8	492.0	494.0	496.0	497.9
52.5	76.2	18.8	19.7	20.5	21.4	21.7	21.9	492.1	494.1	496.1	498.0
53.0	76.2	18.8	19.7	20.6	21.5	21.8	22.0	492.2	494.2	496.1	498.1
53.5	76.2	18.9	19.8	20.7	21.6	21.9	22.0	492.3	494.2	496.2	498.2
54.0	76.2	18.9	19.8	20.7	21.6	21.9	22.1	492.3	494.3	496.2	498.2
54.5	76.2	19.0	19.8	20.7	21.6	22.0	22.1	492.3	494.3	496.3	498.2
55.0	76.1	19.0	19.9	20.7	21.6	22.0	22.1	492.3	494.3	496.3	498.2
55.5	76.0	19.0	19.8	20.7	21.6	22.0	22.1	492.3	494.3	496.2	498.2
56.0	884.1					258.6	257.8				

PST ISE	5.85	5.9	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7
ΔH (kJ)	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*Porosity*	*Porosity*	*Porosity*
0.0	477.2	478.1	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
0.5	477.1	478.0	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
1.0	477.0	477.9	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
1.5	476.9	477.8	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
2.0	476.8	477.7	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
2.5	476.7	477.6	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
3.0	476.6	477.5	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
3.5	476.5	477.4	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
4.0	476.4	477.3	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
4.5	476.3	477.2	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
5.0	476.2	477.1	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
5.5	476.1	477.0	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
6.0	476.0	476.9	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
6.5	475.9	476.8	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
7.0	475.8	476.7	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
7.5	475.7	476.6	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
8.0	475.6	476.6	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
8.5	475.5	476.5	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
9.0	475.4	476.4	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
9.5	475.3	476.3	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
10.0	475.2	476.2	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
10.5	475.1	476.1	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
11.0	475.0	476.0	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
11.5	474.9	475.9	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
12.0	475.0	476.0	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	0.0E+00	0.0E+00	0.0E+00
12.5	475.2	476.2	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.9E-05	0.0E+00	0.0E+00	0.0E+00
13.0	475.4	476.4	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.8E-05	1.9E-05	0.0E+00	0.0E+00	0.0E+00
13.5	475.7	476.7	1.7E-05	1.7E-05	1.7E-05	1.8E-05	1.9E-05	1.9E-05	0.0E+00	0.0E+00	9.9E-04
14.0	475.9	476.9	1.7E-05	1.7E-05	1.8E-05	1.9E-05	1.9E-05	1.9E-05	0.0E+00	0.0E+00	2.6E-03
14.5	476.1	477.1	1.7E-05	1.7E-05	1.8E-05	1.9E-05	1.9E-05	2.0E-05	0.0E+00	0.0E+00	4.2E-03
15.0	476.3	477.3	1.7E-05	1.8E-05	1.9E-05	2.0E-05	2.0E-05	2.0E-05	0.0E+00	3.0E-03	7.0E-03
15.5	476.6	477.6	1.7E-05	1.8E-05	1.9E-05	2.0E-05	2.0E-05	2.1E-05	1.9E-03	5.9E-03	9.8E-03
16.0	477.0	478.0	1.8E-05	1.9E-05	2.0E-05	2.1E-05	2.1E-05	2.1E-05	4.8E-03	8.7E-03	1.3E-02
16.5	477.3	478.3	1.8E-05	1.9E-05	2.0E-05	2.1E-05	2.1E-05	2.2E-05	7.7E-03	1.2E-02	1.6E-02
17.0	477.7	478.6	1.9E-05	2.0E-05	2.1E-05	2.2E-05	2.2E-05	2.2E-05	1.1E-02	1.4E-02	1.8E-02
17.5	478.0	479.0	1.9E-05	2.0E-05	2.1E-05	2.2E-05	2.2E-05	2.3E-05	1.3E-02	1.7E-02	2.1E-02
18.0	478.3	479.3	2.0E-05	2.1E-05	2.2E-05	2.3E-05	2.3E-05	2.4E-05	1.6E-02	2.0E-02	2.4E-02
18.5	478.7	479.6	2.1E-05	2.2E-05	2.3E-05	2.4E-05	2.4E-05	2.4E-05	1.9E-02	2.3E-02	2.7E-02
19.0	479.0	480.0	2.1E-05	2.2E-05	2.3E-05	2.4E-05	2.4E-05	2.5E-05	2.2E-02	2.6E-02	3.0E-02
19.5	479.3	480.3	2.2E-05	2.3E-05	2.4E-05	2.5E-05	2.5E-05	2.5E-05	2.5E-02	2.9E-02	3.3E-02
20.0	479.7	480.7	2.2E-05	2.3E-05	2.4E-05	2.5E-05	2.5E-05	2.6E-05	2.8E-02	3.2E-02	3.5E-02
20.5	480.0	481.0	2.3E-05	2.4E-05	2.5E-05	2.6E-05	2.6E-05	2.6E-05	3.1E-02	3.4E-02	3.8E-02
21.0	480.3	481.3	2.3E-05	2.4E-05	2.5E-05	2.6E-05	2.6E-05	2.7E-05	3.3E-02	3.7E-02	4.1E-02
21.5	480.7	481.7	2.4E-05	2.5E-05	2.6E-05	2.7E-05	2.7E-05	2.7E-05	3.6E-02	4.0E-02	4.4E-02
22.0	481.0	482.0	2.5E-05	2.6E-05	2.6E-05	2.7E-05	2.8E-05	2.8E-05	3.9E-02	4.3E-02	4.7E-02
22.5	481.3	482.3	2.5E-05	2.6E-05	2.7E-05	2.8E-05	2.8E-05	2.9E-05	4.2E-02	4.6E-02	4.9E-02
23.0	481.7	482.7	2.6E-05	2.7E-05	2.8E-05	2.9E-05	2.9E-05	2.9E-05	4.5E-02	4.8E-02	5.2E-02
23.5	482.0	483.0	2.6E-05	2.7E-05	2.8E-05	2.9E-05	2.9E-05	3.0E-05	4.7E-02	5.1E-02	5.5E-02
24.0	482.3	483.3	2.7E-05	2.8E-05	2.9E-05	3.0E-05	3.0E-05	3.0E-05	5.0E-02	5.4E-02	5.8E-02
24.5	482.7	483.7	2.7E-05	2.8E-05	2.9E-05	3.0E-05	3.0E-05	3.1E-05	5.3E-02	5.7E-02	6.0E-02
25.0	483.0	484.0	2.8E-05	2.9E-05	3.0E-05	3.1E-05	3.1E-05	3.1E-05	5.6E-02	6.0E-02	6.3E-02
25.5	483.3	484.3	2.8E-05	2.9E-05	3.0E-05	3.1E-05	3.1E-05	3.2E-05	5.9E-02	6.2E-02	6.6E-02
26.0	483.7	484.7	2.9E-05	3.0E-05	3.1E-05	3.2E-05	3.2E-05	3.2E-05	6.1E-02	6.5E-02	6.9E-02
26.5	484.0	485.0	3.0E-05	3.1E-05	3.1E-05	3.2E-05	3.3E-05	3.3E-05	6.4E-02	6.8E-02	7.2E-02
27.0	484.3	485.3	3.0E-05	3.1E-05	3.2E-05	3.3E-05	3.3E-05	3.4E-05	6.7E-02	7.1E-02	7.4E-02
27.5	484.7	485.7	3.1E-05	3.2E-05	3.3E-05	3.4E-05	3.4E-05	3.4E-05	7.0E-02	7.3E-02	7.7E-02
28.0	485.0	486.0	3.1E-05	3.2E-05	3.3E-05	3.4E-05	3.4E-05	3.5E-05	7.3E-02	7.6E-02	8.0E-02
28.5	485.3	486.3	3.2E-05	3.3E-05	3.4E-05	3.5E-05	3.5E-05	3.5E-05	7.5E-02	7.9E-02	8.2E-02

PST ISE	5.85	5.9	5.5	5.6	5.7	5.8	5.85	5.9	5.5	5.6	5.7
ΔH (kJ)	*V*	*V*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*Porosity*	*Porosity*	*Porosity*
29.0	485.7	486.6	3.2E-05	3.3E-05	3.4E-05	3.5E-05	3.5E-05	3.6E-05	7.8E-02	8.2E-02	8.5E-02
29.5	486.0	487.0	3.3E-05	3.4E-05	3.5E-05	3.6E-05	3.6E-05	3.6E-05	8.1E-02	8.4E-02	8.8E-02
30.0	486.3	487.3	3.3E-05	3.4E-05	3.5E-05	3.6E-05	3.6E-05	3.7E-05	8.4E-02	8.7E-02	9.1E-02
30.5	486.6	487.6	3.4E-05	3.5E-05	3.6E-05	3.7E-05	3.7E-05	3.7E-05	8.6E-02	9.0E-02	9.3E-02
31.0	487.0	488.0	3.5E-05	3.5E-05	3.6E-05	3.7E-05	3.7E-05	3.8E-05	8.9E-02	9.3E-02	9.6E-02
31.5	487.3	488.3	3.5E-05	3.6E-05	3.7E-05	3.8E-05	3.8E-05	3.8E-05	9.2E-02	9.5E-02	9.9E-02
32.0	487.6	488.6	3.6E-05	3.7E-05	3.7E-05	3.8E-05	3.8E-05	3.9E-05	9.4E-02	9.8E-02	0.10
32.5	488.0	488.9	3.6E-05	3.7E-05	3.8E-05	3.9E-05	3.9E-05	3.9E-05	9.7E-02	0.10	0.10
33.0	488.3	489.3	3.7E-05	3.8E-05	3.9E-05	3.9E-05	4.0E-05	4.0E-05	1.0E-01	0.10	0.11
33.5	488.6	489.6	3.7E-05	3.8E-05	3.9E-05	4.0E-05	4.0E-05	4.1E-05	0.10	0.11	0.11
34.0	488.9	489.9	3.8E-05	3.9E-05	4.0E-05	4.1E-05	4.1E-05	4.1E-05	0.11	0.11	0.11
34.5	489.3	490.3	3.8E-05	3.9E-05	4.0E-05	4.1E-05	4.1E-05	4.2E-05	0.11	0.11	0.11
35.0	489.6	490.6	3.9E-05	4.0E-05	4.1E-05	4.2E-05	4.2E-05	4.2E-05	0.11	0.11	0.12
35.5	489.9	490.9	3.9E-05	4.0E-05	4.1E-05	4.2E-05	4.2E-05	4.3E-05	0.11	0.12	0.12
36.0	490.2	491.2	4.0E-05	4.1E-05	4.2E-05	4.3E-05	4.3E-05	4.3E-05	0.12	0.12	0.12
36.5	490.6	491.5	4.0E-05	4.1E-05	4.2E-05	4.3E-05	4.3E-05	4.4E-05	0.12	0.12	0.13
37.0	490.9	491.9	4.1E-05	4.2E-05	4.3E-05	4.4E-05	4.4E-05	4.4E-05	0.12	0.12	0.13
37.5	491.2	492.2	4.2E-05	4.2E-05	4.3E-05	4.4E-05	4.4E-05	4.5E-05	0.12	0.13	0.13
38.0	491.5	492.5	4.2E-05	4.3E-05	4.4E-05	4.5E-05	4.5E-05	4.5E-05	0.13	0.13	0.13
38.5	491.8	492.8	4.3E-05	4.3E-05	4.4E-05	4.5E-05	4.5E-05	4.6E-05	0.13	0.13	0.14
39.0	492.2	493.1	4.3E-05	4.4E-05	4.5E-05	4.6E-05	4.6E-05	4.6E-05	0.13	0.13	0.14
39.5	492.5	493.5	4.4E-05	4.4E-05	4.5E-05	4.6E-05	4.6E-05	4.7E-05	0.13	0.14	0.14
40.0	492.8	493.8	4.4E-05	4.5E-05	4.6E-05	4.7E-05	4.7E-05	4.7E-05	0.14	0.14	0.14
40.5	493.1	494.1	4.5E-05	4.5E-05	4.6E-05	4.7E-05	4.7E-05	4.8E-05	0.14	0.14	0.15
41.0	493.4	494.4	4.5E-05	4.6E-05	4.7E-05	4.8E-05	4.8E-05	4.8E-05	0.14	0.15	0.15
41.5	493.7	494.7	4.6E-05	4.6E-05	4.7E-05	4.8E-05	4.8E-05	4.9E-05	0.14	0.15	0.15
42.0	494.0	495.0	4.6E-05	4.7E-05	4.8E-05	4.9E-05	4.9E-05	4.9E-05	0.15	0.15	0.15
42.5	494.3	495.3	4.7E-05	4.7E-05	4.8E-05	4.9E-05	4.9E-05	5.0E-05	0.15	0.15	0.16
43.0	494.6	495.6	4.7E-05	4.8E-05	4.9E-05	5.0E-05	5.0E-05	5.0E-05	0.15	0.16	0.16
43.5	494.9	495.9	4.8E-05	4.8E-05	4.9E-05	5.0E-05	5.0E-05	5.1E-05	0.15	0.16	0.16
44.0	495.2	496.2	4.8E-05	4.9E-05	5.0E-05	5.1E-05	5.1E-05	5.1E-05	0.16	0.16	0.16
44.5	495.5	496.5	4.9E-05	4.9E-05	5.0E-05	5.1E-05	5.1E-05	5.2E-05	0.16	0.16	0.17
45.0	495.8	496.8	4.9E-05	5.0E-05	5.1E-05	5.2E-05	5.2E-05	5.2E-05	0.16	0.16	0.17
45.5	496.1	497.0	4.9E-05	5.0E-05	5.1E-05	5.2E-05	5.2E-05	5.3E-05	0.16	0.17	0.17
46.0	496.3	497.3	5.0E-05	5.1E-05	5.2E-05	5.2E-05	5.3E-05	5.3E-05	0.17	0.17	0.17
46.5	496.6	497.6	5.0E-05	5.1E-05	5.2E-05	5.3E-05	5.3E-05	5.3E-05	0.17	0.17	0.17
47.0	496.9	497.8	5.1E-05	5.2E-05	5.2E-05	5.3E-05	5.3E-05	5.4E-05	0.17	0.17	0.18
47.5	497.1	498.1	5.1E-05	5.2E-05	5.3E-05	5.4E-05	5.4E-05	5.4E-05	0.17	0.18	0.18
48.0	497.3	498.3	5.2E-05	5.2E-05	5.3E-05	5.4E-05	5.4E-05	5.5E-05	0.18	0.18	0.18
48.5	497.6	498.6	5.2E-05	5.3E-05	5.4E-05	5.4E-05	5.5E-05	5.5E-05	0.18	0.18	0.18
49.0	497.8	498.8	5.2E-05	5.3E-05	5.4E-05	5.5E-05	5.5E-05	5.5E-05	0.18	0.18	0.19
49.5	498.0	499.0	5.3E-05	5.3E-05	5.4E-05	5.5E-05	5.5E-05	5.6E-05	0.18	0.18	0.19
50.0	498.2	499.2	5.3E-05	5.4E-05	5.5E-05	5.5E-05	5.6E-05	5.6E-05	0.18	0.19	0.19
50.5	498.4	499.4	5.3E-05	5.4E-05	5.5E-05	5.6E-05	5.6E-05	5.6E-05	0.18	0.19	0.19
51.0	498.6	499.5	5.4E-05	5.4E-05	5.5E-05	5.6E-05	5.6E-05	5.7E-05	0.19	0.19	0.19
51.5	498.7	499.7	5.4E-05	5.5E-05	5.6E-05	5.6E-05	5.7E-05	5.7E-05	0.19	0.19	0.19
52.0	498.8	499.8	5.4E-05	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.7E-05	0.19	0.19	0.20
52.5	498.9	499.9	5.4E-05	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.7E-05	0.19	0.19	0.20
53.0	499.0	500.0	5.4E-05	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.8E-05	0.19	0.20	0.20
53.5	499.1	500.1	5.5E-05	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.8E-05	0.19	0.20	0.20
54.0	499.2	500.2	5.5E-05	5.6E-05	5.6E-05	5.7E-05	5.8E-05	5.8E-05	0.19	0.20	0.20
54.5	499.2	500.2	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.8E-05	5.8E-05	0.20	0.20	0.20
55.0	499.2	500.2	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.8E-05	5.8E-05	0.20	0.20	0.20
55.5	499.2	500.2	5.5E-05	5.6E-05	5.7E-05	5.7E-05	5.8E-05	5.8E-05	0.20	0.20	0.20
56.0	499.2	500.2					5.8E-05	5.8E-05			

PST ISE

	5.8	5.85	5.9
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*
0.0	0.0E+00	0.0E+00	1.3E-03
0.5	0.0E+00	0.0E+00	1.3E-03
1.0	0.0E+00	0.0E+00	1.3E-03
1.5	0.0E+00	0.0E+00	1.4E-03
2.0	0.0E+00	0.0E+00	1.4E-03
2.5	0.0E+00	0.0E+00	1.4E-03
3.0	0.0E+00	0.0E+00	1.5E-03
3.5	0.0E+00	0.0E+00	1.5E-03
4.0	0.0E+00	0.0E+00	1.5E-03
4.5	0.0E+00	0.0E+00	1.6E-03
5.0	0.0E+00	0.0E+00	1.6E-03
5.5	0.0E+00	0.0E+00	1.7E-03
6.0	0.0E+00	0.0E+00	1.7E-03
6.5	0.0E+00	0.0E+00	1.7E-03
7.0	0.0E+00	0.0E+00	1.8E-03
7.5	0.0E+00	0.0E+00	1.8E-03
8.0	0.0E+00	0.0E+00	1.9E-03
8.5	0.0E+00	0.0E+00	1.9E-03
9.0	0.0E+00	0.0E+00	2.0E-03
9.5	0.0E+00	0.0E+00	2.0E-03
10.0	0.0E+00	0.0E+00	2.1E-03
10.5	0.0E+00	0.0E+00	2.1E-03
11.0	0.0E+00	0.0E+00	2.2E-03
11.5	0.0E+00	0.0E+00	2.2E-03
12.0	0.0E+00	1.1E-03	3.2E-03
12.5	1.8E-03	2.7E-03	4.7E-03
13.0	3.5E-03	4.3E-03	6.4E-03
13.5	5.1E-03	5.9E-03	8.0E-03
14.0	6.7E-03	7.5E-03	9.6E-03
14.5	8.2E-03	9.1E-03	1.1E-02
15.0	1.1E-02	1.1E-02	1.3E-02
15.5	1.4E-02	1.4E-02	1.6E-02
16.0	1.7E-02	1.6E-02	1.8E-02
16.5	1.9E-02	1.9E-02	2.1E-02
17.0	2.2E-02	2.2E-02	2.4E-02
17.5	2.5E-02	2.5E-02	2.7E-02
18.0	2.8E-02	2.8E-02	3.0E-02
18.5	3.1E-02	3.1E-02	3.3E-02
19.0	3.4E-02	3.3E-02	3.5E-02
19.5	3.6E-02	3.6E-02	3.8E-02
20.0	3.9E-02	3.9E-02	4.1E-02
20.5	4.2E-02	4.2E-02	4.4E-02
21.0	4.5E-02	4.5E-02	4.6E-02
21.5	4.8E-02	4.7E-02	4.9E-02
22.0	5.0E-02	5.0E-02	5.2E-02
22.5	5.3E-02	5.3E-02	5.5E-02
23.0	5.6E-02	5.6E-02	5.8E-02
23.5	5.9E-02	5.8E-02	6.0E-02
24.0	6.1E-02	6.1E-02	6.3E-02
24.5	6.4E-02	6.4E-02	6.6E-02
25.0	6.7E-02	6.7E-02	6.9E-02
25.5	7.0E-02	6.9E-02	7.1E-02
26.0	7.2E-02	7.2E-02	7.4E-02
26.5	7.5E-02	7.5E-02	7.7E-02
27.0	7.8E-02	7.8E-02	7.9E-02
27.5	8.1E-02	8.0E-02	8.2E-02
28.0	8.3E-02	8.3E-02	8.5E-02
28.5	8.6E-02	8.6E-02	8.8E-02

PST ISE

	5.8	5.85	5.9
ΔH (kJ)	*Porosity*	*Porosity*	*Porosity*
29.0	8.9E-02	8.9E-02	9.0E-02
29.5	9.1E-02	9.1E-02	9.3E-02
30.0	9.4E-02	9.4E-02	9.6E-02
30.5	9.7E-02	9.7E-02	9.8E-02
31.0	1.0E-01	9.9E-02	0.10
31.5	0.10	0.10	0.10
32.0	0.10	0.10	0.11
32.5	0.11	0.11	0.11
33.0	0.11	0.11	0.11
33.5	0.11	0.11	0.11
34.0	0.12	0.12	0.12
34.5	0.12	0.12	0.12
35.0	0.12	0.12	0.12
35.5	0.12	0.12	0.12
36.0	0.13	0.13	0.13
36.5	0.13	0.13	0.13
37.0	0.13	0.13	0.13
37.5	0.13	0.13	0.14
38.0	0.14	0.14	0.14
38.5	0.14	0.14	0.14
39.0	0.14	0.14	0.14
39.5	0.14	0.14	0.15
40.0	0.15	0.15	0.15
40.5	0.15	0.15	0.15
41.0	0.15	0.15	0.15
41.5	0.15	0.15	0.16
42.0	0.16	0.16	0.16
42.5	0.16	0.16	0.16
43.0	0.16	0.16	0.16
43.5	0.16	0.16	0.17
44.0	0.17	0.17	0.17
44.5	0.17	0.17	0.17
45.0	0.17	0.17	0.17
45.5	0.17	0.17	0.17
46.0	0.18	0.18	0.18
46.5	0.18	0.18	0.18
47.0	0.18	0.18	0.18
47.5	0.18	0.18	0.18
48.0	0.18	0.18	0.19
48.5	0.19	0.19	0.19
49.0	0.19	0.19	0.19
49.5	0.19	0.19	0.19
50.0	0.19	0.19	0.19
50.5	0.19	0.19	0.20
51.0	0.20	0.20	0.20
51.5	0.20	0.20	0.20
52.0	0.20	0.20	0.20
52.5	0.20	0.20	0.20
53.0	0.20	0.20	0.20
53.5	0.20	0.20	0.20
54.0	0.20	0.20	0.21
54.5	0.20	0.21	0.21
55.0	0.21	0.21	0.21
55.5	0.21	0.21	0.21
56.0		0.21	0.21

	Toba Isenthalpic Data											
	7.1 WR12A1	7.0 WR12A1	6.9 WR21A1	6.8 WR 21A1	6.6WR21A 1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1
ΔH (kJ)	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*	*crystal content*
0.0	0.29	0.28	0.28	0.28	0.26	0.01	0.01	0.01	0.01	0.01	0.07	0.06
0.5	0.30	0.30	0.29	0.29	0.28	0.07	0.04	0.04	0.04	0.07	0.11	0.11
1.0	0.31	0.31	0.31	0.31	0.31	0.15	0.07	0.07	0.07	0.15	0.17	0.17
1.5	0.35	0.35	0.35	0.35	0.36	0.22	0.10	0.10	0.11	0.22	0.24	0.24
2.0	0.40	0.40	0.40	0.40	0.41	0.30	0.14	0.14	0.14	0.30	0.30	0.30
2.5	0.44	0.44	0.44	0.44	0.45	0.38	0.18	0.18	0.18	0.38	0.36	0.36
3.0	0.49	0.49	0.49	0.49	0.50	0.45	0.22	0.22	0.22	0.45	0.42	0.43
3.5	0.53	0.53	0.53	0.54	0.55	0.52	0.26	0.26	0.25	0.52	0.49	0.49
4.0	0.58	0.58	0.58	0.58	0.59	0.60	0.30	0.29	0.29	0.60	0.55	0.55
4.5	0.62	0.62	0.63	0.63	0.64	0.67	0.33	0.33	0.33	0.67	0.61	0.61
5.0	0.67	0.67	0.67	0.67	0.68	0.74	0.37	0.37	0.37	0.74	0.67	0.67
5.5	0.71	0.71	0.71	0.72	0.73	0.81	0.41	0.41	0.41	0.81	0.72	0.73
6.0	0.76	0.76	0.76	0.76	0.77	0.88	0.45	0.44	0.44	0.88	0.78	0.78
6.5	0.80	0.80	0.80	0.80	0.82	0.94	0.48	0.48	0.48	0.94	0.84	0.84
7.0	0.85	0.85	0.85	0.85	0.86	1.01	0.52	0.52	0.52	1.01	0.89	0.90
7.5	0.89	0.89	0.89	0.89	0.91	1.08	0.56	0.56	0.56	1.08	0.95	0.95
8.0	0.93	0.93	0.93	0.94	0.95	1.14	0.59	0.59	0.59	1.14	1.00	1.01
8.5	0.98	0.98	0.98	0.98	0.99	1.21	0.63	0.63	0.63	1.21	1.48	1.50
9.0	1.02	1.02	1.02	1.02	1.04	1.27	0.66	0.66	0.66	1.27	2.09	2.11
9.5	1.06	1.06	1.06	1.07	1.08	1.34	0.70	0.70	0.70	1.34	2.69	2.72
10.0	1.10	1.10	1.11	1.11	1.12	1.40	0.74	0.74	0.74	1.40	3.29	3.31
10.5	1.15	1.15	1.15	1.15	1.16	1.46	0.77	0.77	0.77	1.46	3.90	3.93
11.0	1.19	1.19	1.19	1.19	1.21	1.52	0.81	0.81	0.81	1.52	4.51	4.55
11.5	1.23	1.23	1.23	1.23	1.25	1.58	0.84	0.84	0.84	1.58	5.12	5.15
12.0	1.27	1.27	1.27	1.28	1.29	1.64	0.87	0.88	0.88	1.64	5.71	5.75
12.5	1.31	1.31	1.32	1.32	1.33	1.70	0.91	0.91	0.91	1.70	6.30	6.34
13.0	1.35	1.35	1.36	1.36	1.37	1.75	0.94	0.94	0.95	1.75	6.88	6.92
13.5	1.39	1.40	1.40	1.40	1.42	1.81	0.98	0.98	0.98	1.81	7.46	7.50
14.0	1.43	1.44	1.44	1.44	1.46	1.87	1.01	1.01	1.01	1.87	9.30	9.42
14.5	1.47	1.48	1.48	1.48	1.50	1.92	1.04	1.05	1.05	1.92	11.7	11.8
15.0	1.51	1.52	1.52	1.52	1.54	2.18	1.08	1.08	1.08	2.18	14.2	14.3
15.5	1.55	1.56	1.56	1.56	1.58	2.82	1.11	1.11	1.12	2.82	16.7	16.8
16.0	1.59	1.60	1.60	1.60	1.62	3.45	1.14	1.15	1.15	3.45	19.2	19.3
16.5	1.63	1.64	1.64	1.64	1.66	4.14	1.18	1.18	1.18	4.14	21.7	21.8
17.0	1.67	1.67	1.68	1.68	1.70	4.86	1.21	1.21	1.21	4.86	24.1	24.3
17.5	1.71	1.71	1.72	1.72	1.74	5.95	1.24	1.24	1.25	5.95	26.6	26.8
18.0	1.75	1.75	1.76	1.76	1.78	7.65	1.27	1.28	1.28	7.65	29.1	29.3
18.5	1.79	1.79	1.79	1.80	1.82	9.29	1.30	1.31	1.31	9.29	31.6	31.8
19.0	1.83	1.83	1.83	1.84	1.85	10.9	1.34	1.34	1.34	10.9	34.1	34.3
19.5	1.86	1.87	1.87	1.87	1.89	12.5	1.37	1.37	1.37	12.5	36.6	36.7
20.0	1.90	1.90	1.91	1.91	1.93	14.1	1.40	1.40	1.41	14.1	39.0	39.2
20.5	1.94	1.94	1.95	1.95	2.10	15.7	1.43	1.43	1.44	15.7	41.5	41.7
21.0	1.98	1.98	1.98	1.99	2.34	18.2	1.46	1.46	1.47	18.2	44.0	44.1
21.5	2.01	2.02	2.02	2.15	2.58	20.7	1.49	1.49	1.50	20.7	46.4	46.6
22.0	2.05	2.05	2.21	2.39	2.82	23.2	1.52	1.52	1.53	23.2	48.8	49.0
22.5	2.10	2.27	2.45	2.63	3.06	25.7	1.55	1.55	1.56	25.7	51.3	51.4
23.0	2.34	2.51	2.69	2.87	3.29	28.2	1.58	1.58	1.59	28.2	53.7	53.9
23.5	2.58	2.75	2.92	3.10	3.53	30.6	1.61	1.61	1.62	30.6	56.1	56.3
24.0	2.81	2.98	3.16	3.34	3.77	33.1	1.64	1.64	1.65	33.1	58.5	58.6
24.5	3.05	3.22	3.40	3.58	4.01	35.6	1.67	1.67	1.68	35.6	60.8	61.0
25.0	3.41	3.46	3.63	3.81	4.25	38.1	1.70	1.70	1.71	38.1	63.1	63.3

Toba Isenthalpic Data

ΔH (kJ)	7.1 WR12A1 *crystal content*	7.0 WR12A1 *crystal content*	6.9 WR21A1 *crystal content*	6.8 WR 21A1 *crystal content*	6.6WR21A 1 *crystal content*	7.9 WR23A4 *crystal content*	7.7 WR23A4 *crystal content*	7.5 WR23A4 *crystal content*	7.3 WR23A4 *crystal content*	7.1 WR23A4 *crystal content*	7.8 WR55A1 *crystal content*	7.71 WR55A1 *crystal content*
25.5	3.76	3.69	3.87	4.05	4.48	40.6	1.72	1.73	1.73	40.6	65.4	65.6
26.0	4.10	3.93	4.10	4.29	4.72	43.0	1.75	1.76	1.76	43.0	67.6	67.8
26.5	4.44	4.27	4.34	4.52	4.96	45.5	1.78	1.79	1.79	45.5	69.8	70.0
27.0	4.79	4.61	4.57	4.76	5.19	48.0	1.81	1.81	1.82	48.0	71.9	72.1
27.5	5.13	4.96	4.81	4.99	5.43	50.4	1.84	1.84	1.85	50.4	73.9	74.0
28.0	5.48	5.31	5.13	5.23	5.66	52.9	1.86	1.87	1.87	52.9	75.7	75.9
28.5	5.82	5.65	5.48	5.46	5.90	55.3	1.89	1.90	1.90	55.3	77.5	77.6
29.0	6.17	6.00	5.83	5.70	6.13	57.7	1.92	1.92	1.93	57.7	79.2	79.3
29.5	6.51	6.34	6.17	6.01	6.37	60.1	1.94	1.98	2.10	60.1	80.9	81.1
30.0	6.86	6.69	6.52	6.35	6.60	62.5	2.14	2.24	2.36	62.5	82.7	82.8
30.5	7.20	7.03	6.87	6.70	6.84	0.65	2.40	2.50	2.62	64.8		
31.0	7.55	7.38	7.21	7.05	7.07	0.67	2.69	2.77	2.88	67.2		
31.5	7.89	7.73	7.56	7.40	7.30	0.69	2.97	3.03	3.14	69.4		
32.0	8.24	8.07	7.91	7.74	7.54	0.72	3.26	3.31	3.41	71.7		
32.5	8.58	8.42	8.25	8.09	7.85	0.74	3.55	3.61	3.71	73.8		
33.0	8.92	8.76	8.60	8.44	8.20	0.76	3.86	3.93	4.02	75.9		
33.5	9.27	9.11	8.94	8.79	8.55		4.18	4.25	4.34			
34.0	9.61	9.45	9.29	9.13	8.89		4.50	4.57	4.77			
34.5	9.95	9.79	9.63	9.48	9.24		4.89	4.88	5.26			
35.0	10.3	10.1	9.98	9.82	9.59		5.25	5.33	5.76			
35.5	10.6	10.5	10.3	10.2	9.94		6.01	5.83	6.25			
36.0	11.0	10.8	10.7	10.5	10.3		6.86	6.32	6.73			
36.5	11.3	11.2	11.0	10.9	10.6		7.71	6.81	7.22			
37.0	11.7	11.5	11.3	11.2	11.0		8.54	7.78	7.71			
37.5	12.0	11.8	11.7	11.5	11.3		9.35	8.61	8.19			
38.0	12.7	12.3	12.0	11.9	11.7		10.2	9.42	8.67			
38.5	13.5	13.1	12.7	12.4	12.0		11.0	10.2	9.51			
39.0	14.2	13.9	13.5	13.2	12.6		11.8	11.1	10.3			
39.5	15.0	14.7	14.3	14.0	13.4		12.6	11.9	11.2			
40.0	15.8	15.4	15.1	14.7	14.2		13.4	12.7	12.0			
40.5	16.6	16.2	15.9	15.5	15.0		14.2	13.5	12.8			
41.0	17.3	17.0	16.6	16.3	15.8		14.9	14.3	13.6			
41.5	18.1	17.7	17.4	17.1	16.5		15.8	15.0	14.4			
42.0	18.8	18.5	18.2	17.8	17.3		17.1	15.9	15.1			
42.5	19.6	19.3	18.9	18.6	18.1		18.3	17.2	16.1			
43.0	20.3	20.0	19.7	19.3	18.8		19.6	18.4	17.4			
43.5	21.1	20.8	20.4	20.1	19.6		20.8	19.7	18.6			
44.0	21.8	21.5	21.2	20.9	20.4		22.1	21.0	19.9			
44.5	22.6	22.2	21.9	21.6	21.1		23.3	22.2	21.1			
45.0	23.3	23.0	22.7	22.3	21.9		24.6	23.5	22.4			
45.5	24.0	23.7	23.4	23.1	22.6		25.8	24.7	23.6			
46.0	24.7	24.4	24.1	23.8	23.3		27.1	26.0	24.9			
46.5	25.5	25.2	24.8	24.5	24.1		28.3	27.2	26.1			
47.0	26.2	25.9	25.6	25.3	24.8		29.5	28.5	27.4			
47.5	26.9	26.6	26.3	26.0	25.5		30.8	29.7	28.6			
48.0	27.6	27.3	27.0	26.7	26.3		32.0	31.0	29.9			
48.5	28.3	28.0	27.7	27.4	27.0		33.3	32.2	31.1			
49.0	29.0	28.7	28.4	28.1	27.7		34.5	33.5	32.4			
49.5	29.7	29.4	29.1	28.8	28.4		35.8	34.7	33.6			
50.0	30.4	30.1	29.8	29.5	29.1		37.0	35.9	34.9			
50.5	31.0	30.8	30.5	30.2	29.8		38.3	37.2	36.1			

Toba Isenthalpic Data

ΔH (kJ)	7.1 WR12A1 *crystal content*	7.0 WR12A1 *crystal content*	6.9 WR21A1 *crystal content*	6.8 WR 21A1 *crystal content*	6.6WR21A 1 *crystal content*	7.9 WR23A4 *crystal content*	7.7 WR23A4 *crystal content*	7.5 WR23A4 *crystal content*	7.3 WR23A4 *crystal content*	7.1 WR23A4 *crystal content*	7.8 WR55A1 *crystal content*	7.71 WR55A1 *crystal content*
51.0	31.7	31.4	31.2	30.9	30.5		39.5	38.4	37.4			
51.5	32.4	32.1	31.8	31.6	31.2		40.7	39.7	38.6			
52.0	33.0	32.8	32.5	32.2	31.8		42.0	40.9	39.9			
52.5	33.7	33.4	33.2	32.9	32.5		43.2	42.2	41.1			
53.0	34.4	34.1	33.8	33.6	33.2		44.4	43.4	42.4			
53.5	35.4	35.0	34.5	34.2	33.9		45.7	44.6	43.6			
54.0	36.5	36.1	35.6	35.2	34.5		46.9	45.9	44.8			
54.5	37.6	37.2	36.7	36.3	35.6		48.1	47.1	46.1			
55.0	38.7	38.3	37.8	37.4	36.7		49.4	48.3	47.3			
55.5	39.8	39.3	38.9	38.5	37.8		50.6	49.6	48.6			
56.0	40.8	40.4	40.0	39.5	38.9		51.8	50.8	49.8			
56.5	41.9	41.4	41.0	40.6	40.0		53.0	52.0	51.0			
57.0	42.9	42.5	42.1	41.6	41.0		54.3	53.2	52.2			
57.5	43.9	43.5	43.1	42.7	42.1		55.5	54.5	53.5			
58.0	44.9	44.5	44.1	43.7	43.1		56.7	55.7	54.7			
58.5	45.9	45.5	45.1	44.7	44.1		57.9	56.9	55.9			
59.0	46.9	46.5	46.1	45.7	45.2		59.1	58.1	57.1			
59.5	47.9	47.6	47.2	46.8	46.2		60.3	59.3	58.3			
60.0	48.9	48.5	48.2	47.8	47.2		61.5	60.5	59.6			
60.5	49.9	49.5	49.1	48.8	48.2		62.7	61.7	60.8			
61.0	50.9	50.5	50.1	49.7	49.2			62.9	62.0			
61.5	51.9	51.5	51.1	50.7	50.2			64.1	63.2			
62.0	52.8	52.5	52.1	51.7	51.2			65.3	64.3			
62.5	53.8	53.4	53.1	52.7	52.2			66.4	65.5			
63.0	54.8	54.4	54.0	53.7	53.2			67.6	66.7			
63.5	55.7	55.3	55.0	54.6	54.1			68.7	67.9			
64.0	56.6	56.2	55.9	55.6	55.1			69.9	69.0			
64.5	57.5			56.5	56.0			71.0	70.1			
65.0	58.3							72.1	71.3			
65.5	59.2							73.2	72.4			
66.0	60.0							74.3	73.5			
66.5	60.8							75.3	74.5			
67.0	61.6							76.3	75.6			
67.5	62.4							77.3	76.6			
68.0	63.1							78.3	77.6			
68.5	63.8							79.2	78.5			
69.0	64.5							80.1	79.5			
69.5	65.2								80.3			

ΔH (kJ)	7.6 WR55A1 *crystal content*	7.5 WR55A1 *crystal content*	7.4 WR55A1 *crystal content*	7.3 WR55A1 *crystal content*	7.1 WR12A1 *DP*	7.0 WR12A1 *DP*	6.9 WR21A1 *DP*	6.8 WR 21A1 *DP*	6.6WR21A 1 *DP*	7.9 WR23A4 *DP*	7.7 WR23A4 *DP*
0.0	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	0.11	0.10	0.10	0.10	-1.52	-1.52	-1.52	-1.52	-1.52	-3.60	-1.70
1.0	0.17	0.17	0.17	0.17	-3.04	-3.04	-3.04	-3.04	-3.11	-7.12	-3.41
1.5	0.23	0.23	0.23	0.23	-4.64	-4.65	-4.65	-4.66	-4.74	-10.6	-5.12
2.0	0.30	0.30	0.30	0.30	-6.27	-6.28	-6.28	-6.29	-6.37	-14.1	-6.81
2.5	0.36	0.36	0.36	0.36	-7.90	-7.91	-7.91	-7.92	-8.00	-17.5	-8.50
3.0	0.42	0.42	0.42	0.42	-9.53	-9.54	-9.55	-9.56	-9.64	-21.0	-10.2
3.5	0.48	0.48	0.48	0.48	-11.2	-11.2	-11.2	-11.2	-11.3	-24.5	-11.9
4.0	0.54	0.54	0.54	0.54	-12.8	-12.8	-12.8	-12.8	-12.9	-28.0	-13.6
4.5	0.60	0.60	0.60	0.60	-14.4	-14.4	-14.5	-14.5	-14.6	-31.4	-15.3
5.0	0.66	0.66	0.66	0.66	-16.1	-16.1	-16.1	-16.1	-16.2	-34.9	-17.0
5.5	0.72	0.72	0.72	0.72	-17.7	-17.7	-17.7	-17.8	-17.8	-38.3	-18.7
6.0	0.78	0.78	0.78	0.78	-19.4	-19.4	-19.4	-19.4	-19.5	-41.7	-20.4
6.5	0.83	0.83	0.83	0.84	-21.0	-21.0	-21.0	-21.0	-21.1	-45.2	-22.1
7.0	0.89	0.89	0.89	0.89	-22.7	-22.7	-22.7	-22.7	-22.8	-48.6	-23.8
7.5	0.94	0.94	0.95	0.95	-24.3	-24.3	-24.3	-24.3	-24.4	-52.0	-25.5
8.0	1.00	1.00	1.00	1.04	-26.0	-26.0	-26.0	-26.0	-26.1	-55.4	-27.2
8.5	1.37	1.43	1.49	1.56	-27.6	-27.6	-27.6	-27.7	-27.7	-58.8	-28.9
9.0	1.96	1.96	2.02	2.08	-29.3	-29.3	-29.3	-29.3	-29.4	-62.1	-30.6
9.5	2.57	2.48	2.54	2.61	-30.9	-30.9	-31.0	-31.0	-31.1	-65.5	-32.3
10.0	3.17	3.01	3.06	3.12	-32.6	-32.6	-32.6	-32.6	-32.7	-68.8	-34.1
10.5	3.78	3.63	3.58	3.64	-34.3	-34.3	-34.3	-34.3	-34.4	-72.1	-35.8
11.0	4.40	4.25	4.14	4.18	-35.9	-35.9	-35.9	-36.0	-36.1	-75.4	-37.5
11.5	5.01	4.86	4.69	4.73	-37.6	-37.6	-37.6	-37.6	-37.7	-78.7	-39.2
12.0	5.61	5.46	5.32	5.27	-39.3	-39.3	-39.3	-39.3	-39.4	-82.0	-41.0
12.5	6.20	6.06	5.92	5.82	-40.9	-40.9	-41.0	-41.0	-41.1	-85.2	-42.7
13.0	6.79	6.65	6.51	6.36	-42.6	-42.6	-42.6	-42.6	-42.7	-88.4	-44.4
13.5	7.37	7.23	7.10	6.97	-44.3	-44.3	-44.3	-44.3	-44.4	-91.6	-46.2
14.0	8.93	8.44	7.95	7.55	-46.0	-46.0	-46.0	-46.0	-46.1	-94.8	-47.9
14.5	11.2	10.6	10.1	9.56	-47.6	-47.7	-47.7	-47.7	-47.8	-97.9	-49.7
15.0	13.7	13.1	12.6	12.0	-49.3	-49.3	-49.3	-49.4	-49.5	-100.7	-51.4
15.5	16.2	15.7	15.1	14.5	-51.0	-51.0	-51.0	-51.0	-51.1	-103.3	-53.2
16.0	18.7	18.2	17.6	17.0	-52.7	-52.7	-52.7	-52.7	-52.8	-105.9	-54.9
16.5	21.2	20.7	20.1	19.5	-54.4	-54.4	-54.4	-54.4	-54.5	-108.1	-56.7
17.0	23.7	23.2	22.6	22.0	-56.1	-56.1	-56.1	-56.1	-56.2	-110.0	-58.4
17.5	26.2	25.7	25.1	24.5	-57.8	-57.8	-57.8	-57.8	-57.9	-107.9	-60.2
18.0	28.7	28.2	27.6	27.0	-59.5	-59.5	-59.5	-59.5	-59.6	-99.3	-61.9
18.5	31.2	30.6	30.1	29.5	-61.2	-61.2	-61.2	-61.2	-61.3	-91.6	-63.7
19.0	33.7	33.1	32.6	32.0	-62.9	-62.9	-62.9	-62.9	-63.0	-84.2	-65.4
19.5	36.2	35.6	35.1	34.5	-64.6	-64.6	-64.6	-64.6	-64.7	-77.4	-67.2
20.0	38.7	38.1	37.5	37.0	-66.3	-66.3	-66.3	-66.3	-66.4	-71.2	-69.0
20.5	41.1	40.6	40.0	39.5	-68.0	-68.0	-68.0	-68.0	-68.1	-65.2	-70.8
21.0	43.6	43.0	42.5	42.0	-69.7	-69.7	-69.7	-69.7	-69.9	-56.9	-72.5
21.5	46.0	45.5	45.0	44.4	-71.4	-71.4	-71.4	-71.4	-71.6	-48.9	-74.3
22.0	48.5	48.0	47.4	46.9	-73.1	-73.1	-73.1	-73.2	-73.4	-41.2	-76.1
22.5	50.9	50.4	49.9	49.3	-74.8	-74.9	-74.9	-74.9	-75.1	-33.8	-77.9
23.0	53.3	52.8	52.3	51.8	-76.6	-76.6	-76.6	-76.7	-76.9	-26.7	-79.6
23.5	55.8	55.2	54.7	54.2	-78.3	-78.3	-78.4	-78.5	-78.7	-19.9	-81.4
24.0	58.1	57.6	57.1	56.6	-80.1	-80.1	-80.2	-80.2	-80.5	-13.3	-83.2
24.5	60.5	60.0	59.5	59.0	-81.8	-81.9	-81.9	-82.0	-82.3	-6.97	-85.0
25.0	62.8	62.3	61.8	61.4	-78.8	-83.6	-83.7	-83.8	-84.1	-0.85	-86.8

ΔH (kJ)	7.6 WR55A1 *crystal content*	7.5 WR55A1 *crystal content*	7.4 WR55A1 *crystal content*	7.3 WR55A1 *crystal content*	7.1 WR12A1 *DP*	7.0 WR12A1 *DP*	6.9 WR21A1 *DP*	6.8 WR 21A1 *DP*	6.6WR21A 1 *DP*	7.9 WR23A4 *DP*	7.7 WR23A4 *DP*
25.5	65.1	64.6	64.2	63.7	-76.6	-85.4	-85.5	-85.6	-85.9	5.06	-88.6
26.0	67.4	66.9	66.4	66.0	-74.5	-87.2	-87.3	-87.4	-87.7	10.8	-90.4
26.5	69.5	69.1	68.7	68.2	-72.4	-84.9	-89.1	-89.2	-89.5	16.3	-92.2
27.0	71.7	71.2	70.8	70.4	-70.3	-82.6	-90.9	-91.0	-91.3	21.6	-94.0
27.5	73.7	73.3	72.9	72.5	-68.3	-80.4	-92.7	-92.8	-93.1	26.7	-95.8
28.0	75.6	75.2	74.8	74.5	-66.3	-78.2	-91.0	-94.6	-95.0	31.6	-97.6
28.5	77.3	77.0	76.7	76.3	-64.3	-76.0	-88.6	-96.4	-96.8	36.4	-99.4
29.0	79.0	78.7	78.3	78.0	-62.4	-73.9	-86.2	-98.2	-98.6	40.9	-101.2
29.5	80.8	80.5	80.1	79.8	-60.5	-71.8	-83.9	-97.1	-100.5	45.3	-103.0
30.0	82.5	82.2	81.9	81.6	-58.7	-69.8	-81.7	-94.6	-102.3	49.6	-105.6
30.5	84.1	83.8	83.6	83.3	-56.9	-67.8	-79.5	-92.2	-104.2	53.6	-108.4
31.0					-55.1	-65.8	-77.3	-89.8	-106.1	57.4	-111.3
31.5					-53.4	-63.9	-75.2	-87.4	-107.9	61.1	-114.2
32.0					-51.7	-62.0	-73.2	-85.1	-109.8	64.5	-117.0
32.5					-50.0	-60.2	-71.1	-82.9	-108.5	67.6	-119.9
33.0					-48.4	-58.4	-69.1	-80.7	-105.8	70.4	-122.9
33.5					-46.8	-56.6	-67.2	-78.6	-103.2		-126.0
34.0					-45.2	-54.9	-65.3	-76.5	-100.6		-129.1
34.5					-43.7	-53.2	-63.4	-74.4	-98.1		-128.9
35.0					-42.2	-51.6	-61.6	-72.4	-95.6		-129.8
35.5					-40.7	-49.9	-59.8	-70.4	-93.2		-126.1
36.0					-39.2	-48.3	-58.1	-68.5	-90.9		-121.3
36.5					-37.8	-46.8	-56.4	-66.6	-88.6		-116.7
37.0					-36.4	-45.3	-54.7	-64.8	-86.4		-112.3
37.5					-35.1	-43.8	-53.1	-63.0	-84.2		-108.3
38.0					-32.8	-42.0	-51.5	-61.2	-82.1		-104.4
38.5					-30.4	-39.3	-48.8	-59.0	-80.0		-100.1
39.0					-28.0	-36.7	-46.0	-56.0	-77.0		-96.3
39.5					-25.7	-34.2	-43.3	-53.0	-73.5		-92.8
40.0					-23.5	-31.8	-40.7	-50.2	-70.2		-89.4
40.5					-21.3	-29.5	-38.2	-47.4	-66.9		-86.0
41.0					-19.2	-27.2	-35.7	-44.7	-63.8		-82.8
41.5					-17.2	-25.0	-33.3	-42.1	-60.7		-79.4
42.0					-15.2	-22.9	-31.0	-39.6	-57.8		-74.8
42.5					-13.3	-20.8	-28.8	-37.2	-55.0		-70.4
43.0					-11.5	-18.8	-26.6	-34.9	-52.2		-66.1
43.5					-9.71	-16.9	-24.5	-32.6	-49.6		-61.8
44.0					-7.97	-15.0	-22.5	-30.4	-47.0		-57.7
44.5					-6.29	-13.2	-20.6	-28.3	-44.6		-53.6
45.0					-4.67	-11.5	-18.7	-26.3	-42.2		-49.6
45.5					-3.09	-9.77	-16.8	-24.3	-39.8		-45.7
46.0					-1.57	-8.13	-15.0	-22.4	-37.6		-41.9
46.5					-0.09	-6.54	-13.3	-20.5	-35.4		-38.1
47.0					1.33	-5.00	-11.7	-18.7	-33.4		-34.4
47.5					2.71	-3.51	-10.1	-17.0	-31.3		-30.8
48.0					4.05	-2.07	-8.50	-15.3	-29.4		-27.3
48.5					5.34	-0.68	-7.00	-13.7	-27.5		-23.8
49.0					6.58	0.67	-5.55	-12.1	-25.7		-20.4
49.5					7.78	1.96	-4.15	-10.6	-23.9		-17.0
50.0					8.94	3.22	-2.80	-9.12	-22.2		-13.8
50.5					10.1	4.42	-1.49	-7.71	-20.6		-10.5

ΔH (kJ)	7.6 WR55A1 *crystal content*	7.5 WR55A1 *crystal content*	7.4 WR55A1 *crystal content*	7.3 WR55A1 *crystal content*	7.1 WR12A1 *DP*	7.0 WR12A1 *DP*	6.9 WR21A1 *DP*	6.8 WR 21A1 *DP*	6.6WR21A 1 *DP*	7.9 WR23A4 *DP*	7.7 WR23A4 *DP*
51.0					11.1	5.59	-0.24	-6.35	-19.0		-7.37
51.5					12.2	6.70	0.97	-5.04	-17.5		-4.26
52.0					13.2	7.78	2.14	-3.78	-16.0		-1.21
52.5					14.1	8.82	3.26	-2.57	-14.6		1.79
53.0					15.0	9.81	4.33	-1.41	-13.3		4.73
53.5					16.6	11.1	5.44	-0.29	-12.0		7.62
54.0					18.1	12.7	7.14	1.27	-10.7		10.5
54.5					19.5	14.3	8.78	3.03	-8.73		13.2
55.0					20.9	15.8	10.4	4.72	-6.81		16.0
55.5					22.3	17.2	11.9	6.35	-4.96		18.6
56.0					23.5	18.6	13.4	7.92	-3.18		21.3
56.5					24.8	19.9	14.8	9.43	-1.48		23.9
57.0					26.0	21.1	16.1	10.9	0.17		26.4
57.5					27.1	22.4	17.4	12.3	1.74		28.9
58.0					28.1	23.5	18.7	13.6	3.25		31.3
58.5					28.8	24.4	19.7	14.9	4.70		33.7
59.0					29.5	25.1	20.5	15.7	5.79		36.1
59.5					30.1	25.8	21.3	16.6	6.76		38.4
60.0					30.2	26.4	22.0	17.3	7.69		40.6
60.5					29.7	25.9	22.0	18.0	8.56		42.8
61.0					29.1	25.4	21.5	17.5	9.02		
61.5					28.6	24.9	21.0	17.0	8.55		
62.0					28.1	24.4	20.5	16.5	8.09		
62.5					27.6	23.9	20.0	16.0	7.64		
63.0					27.6	23.4	19.5	15.5	7.19		
63.5					28.3	24.1	19.7	15.1	6.74		
64.0					29.0	24.8	20.5	16.0	6.76		
64.5					29.6			16.8	7.73		
65.0					30.2						
65.5					30.8						
66.0					31.3						
66.5					31.7						
67.0					32.1						
67.5					32.5						
68.0					32.8						
68.5					33.0						
69.0					33.2						
69.5					33.3						

ΔH (kJ)	7.5 WR23A4 DP	7.3 WR23A4 DP	7.1 WR23A4 DP	7.8 WR55A1 DP	7.71 WR55A1 DP	7.6 WR55A1 DP	7.5 WR55A1 DP	7.4 WR55A1 DP	7.3 WR55A1 DP	7.1 WR12A1 DV	7.0 WR12A1 DV
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	-1.70	-1.70	-1.68	-3.25	-3.27	-3.27	-3.27	-3.27	-3.27	-0.14	-0.14
1.0	-3.41	-3.41	-3.36	-6.42	-5.47	-6.63	-6.62	-6.62	-6.62	-0.27	-0.27
1.5	-5.12	-5.12	-5.04	-9.58	-8.65	-9.99	-9.99	-9.98	-9.98	-0.42	-0.41
2.0	-6.82	-6.83	-6.73	-12.7	-11.8	-13.4	-13.4	-13.4	-13.3	-0.56	-0.56
2.5	-8.51	-8.52	-8.41	-15.9	-15.0	-16.7	-16.7	-16.7	-16.7	-0.71	-0.70
3.0	-10.2	-10.2	-10.1	-19.0	-18.1	-20.1	-20.1	-20.1	-20.1	-0.85	-0.85
3.5	-11.9	-11.9	-11.7	-22.1	-21.2	-23.5	-23.5	-23.5	-23.5	-1.00	-0.99
4.0	-13.6	-13.6	-13.4	-25.2	-24.3	-26.9	-26.9	-26.9	-26.9	-1.14	-1.13
4.5	-15.3	-15.3	-15.1	-28.2	-27.4	-30.4	-30.3	-30.3	-30.3	-1.29	-1.28
5.0	-17.0	-17.0	-16.8	-31.3	-30.5	-33.8	-33.8	-33.8	-33.7	-1.43	-1.42
5.5	-18.7	-18.7	-18.5	-34.3	-33.5	-37.2	-37.2	-37.2	-37.2	-1.58	-1.57
6.0	-20.4	-20.4	-20.1	-37.3	-36.6	-40.7	-40.6	-40.6	-40.6	-1.72	-1.71
6.5	-22.1	-22.1	-21.8	-40.3	-39.6	-44.1	-44.1	-44.1	-44.1	-1.87	-1.85
7.0	-23.8	-23.8	-23.5	-43.3	-42.6	-47.6	-47.6	-47.5	-47.5	-2.01	-2.00
7.5	-25.5	-25.5	-25.2	-46.2	-45.5	-51.0	-51.0	-51.0	-51.0	-2.16	-2.14
8.0	-27.2	-27.2	-26.9	-49.2	-48.4	-54.5	-54.5	-54.5	-54.6	-2.30	-2.28
8.5	-28.9	-28.9	-28.6	-51.4	-50.7	-59.3	-59.6	-59.8	-60.1	-2.44	-2.42
9.0	-30.6	-30.6	-30.3	-53.5	-52.8	-62.3	-65.1	-65.3	-65.6	-2.59	-2.57
9.5	-32.4	-32.4	-32.0	-55.6	-54.9	-64.4	-70.6	-70.9	-71.1	-2.73	-2.71
10.0	-34.1	-34.1	-33.7	-57.8	-57.0	-66.6	-76.2	-76.4	-76.7	-2.88	-2.85
10.5	-35.8	-35.8	-35.5	-60.2	-59.4	-68.9	-78.0	-82.0	-82.4	-3.02	-3.00
11.0	-37.5	-37.5	-37.2	-62.6	-61.9	-71.3	-80.3	-87.7	-88.0	-3.16	-3.14
11.5	-39.2	-39.2	-38.9	-65.0	-64.3	-73.7	-82.8	-93.3	-93.7	-3.31	-3.28
12.0	-41.0	-41.0	-40.6	-67.5	-66.8	-76.2	-85.3	-94.7	-99.4	-3.45	-3.42
12.5	-42.7	-42.7	-42.3	-70.1	-69.4	-78.8	-87.8	-97.2	-105.1	-3.59	-3.56
13.0	-44.4	-44.4	-44.1	-72.7	-72.0	-81.4	-90.4	-99.8	-110.9	-3.74	-3.71
13.5	-46.2	-46.2	-45.8	-75.3	-74.7	-84.0	-93.0	-102.4	-112.3	-3.88	-3.85
14.0	-47.9	-47.9	-47.5	-72.5	-71.3	-82.1	-92.7	-103.8	-115.0	-4.02	-3.99
14.5	-49.7	-49.6	-49.3	-65.0	-63.4	-75.1	-86.6	-98.8	-110.3	-4.16	-4.13
15.0	-51.4	-51.4	-51.0	-56.2	-54.5	-65.7	-76.7	-88.3	-100.5	-4.31	-4.27
15.5	-53.1	-53.1	-52.7	-47.8	-46.0	-56.6	-67.2	-78.2	-89.9	-4.45	-4.41
16.0	-54.9	-54.9	-54.5	-39.7	-37.9	-48.0	-58.1	-68.6	-79.7	-4.59	-4.56
16.5	-56.6	-56.6	-56.2	-32.0	-30.0	-39.8	-49.4	-59.5	-70.1	-4.73	-4.70
17.0	-58.4	-58.4	-58.0	-24.6	-22.5	-31.9	-41.1	-50.7	-60.8	-4.88	-4.84
17.5	-60.2	-60.1	-59.7	-17.4	-15.3	-24.3	-33.1	-42.3	-52.0	-5.02	-4.98
18.0	-61.9	-61.9	-61.3	-10.6	-8.41	-17.0	-25.5	-34.3	-43.6	-5.16	-5.12
18.5	-63.7	-63.6	-63.0	-4.00	-1.76	-10.0	-18.1	-26.6	-35.5	-5.30	-5.26
19.0	-65.4	-65.4	-64.6	2.34	4.63	-3.31	-11.1	-19.2	-27.7	-5.44	-5.40
19.5	-67.2	-67.2	-66.3	8.44	10.8	3.15	-4.34	-12.2	-20.3	-5.58	-5.54
20.0	-69.0	-68.9	-67.9	14.3	16.7	9.35	2.14	-5.37	-13.2	-5.73	-5.68
20.5	-70.7	-70.7	-69.6	20.0	22.4	15.3	8.38	1.16	-6.37	-5.87	-5.82
21.0	-72.5	-72.5	-71.2	25.4	27.9	21.1	14.4	7.42	0.18	-6.01	-5.96
21.5	-74.3	-74.2	-72.8	30.7	33.2	26.6	20.1	13.4	6.47	-6.15	-6.10
22.0	-76.1	-76.0	-74.4	35.7	38.2	31.9	25.7	19.2	12.5	-6.29	-6.24
22.5	-77.8	-77.8	-76.1	40.6	43.1	37.0	31.0	24.8	18.3	-6.43	-6.38
23.0	-79.6	-79.6	-77.7	45.2	47.8	41.9	36.1	30.1	23.9	-6.57	-6.52
23.5	-81.4	-81.3	-79.3	49.7	52.3	46.6	41.0	35.2	29.2	-6.71	-6.66
24.0	-83.2	-83.1	-80.9	54.0	56.6	51.1	45.7	40.1	34.3	-6.85	-6.80
24.5	-85.0	-84.9	-82.5	58.1	60.7	55.4	50.2	44.8	39.2	-6.99	-6.94
25.0	-86.8	-86.7	-84.1	62.0	64.6	59.4	54.4	49.2	43.8	-6.80	-7.08

ΔH (kJ)	7.5 WR23A4 DP	7.3 WR23A4 DP	7.1 WR23A4 DP	7.8 WR55A1 DP	7.71 WR55A1 DP	7.6 WR55A1 DP	7.5 WR55A1 DP	7.4 WR55A1 DP	7.3 WR55A1 DP	7.1 WR12A1 DV	7.0 WR12A1 DV
25.5	-88.5	-88.5	-85.7	65.7	68.3	63.3	58.5	53.4	48.2	-6.67	-7.22
26.0	-90.3	-90.3	-87.3	69.1	71.7	66.9	62.2	57.4	52.4	-6.54	-7.36
26.5	-92.1	-92.1	-88.8	72.3	74.9	70.3	65.8	61.1	56.3	-6.41	-7.23
27.0	-93.9	-93.9	-90.4	75.2	77.9	73.4	69.0	64.5	59.9	-6.27	-7.09
27.5	-95.7	-95.7	-92.0	77.8	80.5	76.2	72.0	67.6	63.2	-6.14	-6.96
28.0	-97.5	-97.5	-93.6	80.1	82.7	78.6	74.5	70.4	66.1	-6.01	-6.82
28.5	-99.4	-99.3	-95.2	82.0	84.6	80.6	76.7	72.7	68.6	-5.87	-6.68
29.0	-101.2	-101.1	-97.0	82.6	85.1	81.6	78.3	74.6	70.7	-5.74	-6.55
29.5	-103.1	-103.6	-99.5	82.4	84.9	81.4	78.1	74.7	71.3	-5.61	-6.42
30.0	-106.0	-106.4	-102.1	82.1	84.6	81.1	77.9	74.5	71.1	-5.48	-6.28
30.5	-108.8	-109.3	-104.7			81.2	77.7	74.3	70.9	-5.35	-6.15
31.0	-111.7	-112.2	-107.3							-5.22	-6.02
31.5	-114.6	-115.1	-109.8							-5.10	-5.89
32.0	-117.5	-118.0	-112.5							-4.97	-5.76
32.5	-120.4	-121.1	-115.3							-4.84	-5.63
33.0	-123.5	-124.2	-118.0							-4.71	-5.50
33.5	-126.6	-127.3								-4.59	-5.37
34.0	-129.7	-130.3								-4.46	-5.24
34.5	-132.8	-133.3								-4.34	-5.12
35.0	-135.8	-136.3								-4.21	-4.99
35.5	-138.8	-139.4								-4.09	-4.86
36.0	-141.9	-142.4								-3.97	-4.74
36.5	-144.9	-145.5								-3.85	-4.62
37.0	-137.0	-148.5								-3.73	-4.50
37.5	-132.3	-151.6								-3.61	-4.37
38.0	-127.9	-154.8								-3.42	-4.22
38.5	-123.6	-149.2								-3.20	-4.00
39.0	-118.8	-144.4								-2.98	-3.78
39.5	-114.7	-139.1								-2.76	-3.56
40.0	-110.8	-134.6								-2.55	-3.35
40.5	-107.1	-130.4								-2.34	-3.13
41.0	-103.4	-126.3								-2.13	-2.92
41.5	-99.8	-122.2								-1.92	-2.72
42.0	-96.0	-118.3								-1.72	-2.51
42.5	-91.1	-113.9								-1.52	-2.31
43.0	-86.3	-108.6								-1.32	-2.10
43.5	-81.6	-103.4								-1.13	-1.91
44.0	-77.0	-98.3								-0.93	-1.71
44.5	-72.6	-93.4								-0.74	-1.52
45.0	-68.2	-88.5								-0.56	-1.33
45.5	-63.9	-83.8								-0.37	-1.14
46.0	-59.7	-79.1								-0.19	-0.96
46.5	-55.5	-74.6								-0.01	-0.78
47.0	-51.5	-70.2								0.16	-0.60
47.5	-47.6	-65.8								0.34	-0.42
48.0	-43.7	-61.5								0.50	-0.25
48.5	-39.9	-57.4								0.67	-0.08
49.0	-36.1	-53.3								0.83	0.08
49.5	-32.5	-49.3								0.99	0.24
50.0	-28.9	-45.4								1.14	0.40
50.5	-25.4	-41.5								1.30	0.56

ΔH (kJ)	7.5 WR23A4 DP	7.3 WR23A4 DP	7.1 WR23A4 DP	7.8 WR55A1 DP	7.71 WR55A1 DP	7.6 WR55A1 DP	7.5 WR55A1 DP	7.4 WR55A1 DP	7.3 WR55A1 DP	7.1 WR12A1 DV	7.0 WR12A1 DV
51.0	-21.9	-37.8								1.44	0.71
51.5	-18.6	-34.1								1.59	0.85
52.0	-15.2	-30.4								1.73	1.00
52.5	-12.0	-26.9								1.86	1.14
53.0	-8.80	-23.4								1.99	1.27
53.5	-5.67	-20.0								2.22	1.45
54.0	-2.59	-16.7								2.44	1.68
54.5	0.42	-13.4								2.65	1.89
55.0	3.38	-10.2								2.86	2.11
55.5	6.29	-7.02								3.07	2.32
56.0	9.14	-3.92								3.27	2.52
56.5	11.9	-0.89								3.47	2.72
57.0	14.7	2.08								3.66	2.92
57.5	17.4	5.00								3.85	3.11
58.0	20.0	7.86								4.01	3.29
58.5	22.6	10.7								4.14	3.43
59.0	25.1	13.4								4.27	3.56
59.5	27.6	16.1								4.39	3.68
60.0	30.0	18.7								4.43	3.80
60.5	32.4	21.3								4.37	3.74
61.0	34.7	23.8								4.31	3.68
61.5	37.0	26.3								4.26	3.63
62.0	39.2	28.7								4.20	3.57
62.5	41.4	31.0								4.14	3.52
63.0	43.5	33.3								4.16	3.46
63.5	45.5	35.5								4.30	3.58
64.0	47.5	37.7								4.42	3.72
64.5	49.4	39.8								4.54	
65.0	51.3	41.8								4.66	
65.5	53.0	43.7								4.76	
66.0	54.7	45.6								4.86	
66.5	56.3	47.4								4.94	
67.0	57.9	49.1								5.02	
67.5	59.3	50.7								5.09	
68.0	60.6	52.2								5.15	
68.5	61.8	53.6								5.20	
69.0	62.9	54.8								5.25	
69.5		55.9								5.28	

ΔH (kJ)	6.9 WR21A1 DV	6.8 WR 21A1 DV	6.6WR21A 1 DV	7.9 WR23A4 DV	7.7 WR23A4 DV	7.5 WR23A4 DV	7.3 WR23A4 DV	7.1 WR23A4 DV	7.8 WR55A1 DV	7.71 WR55A1 DV	7.6 WR55A1 DV	7.5 WR55A1 DV
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5	-0.13	-0.13	-0.13	-0.32	-0.15	-0.15	-0.15	-0.14	-0.29	-0.28	-0.28	-0.28
1.0	-0.27	-0.27	-0.27	-0.63	-0.30	-0.29	-0.29	-0.29	-0.57	-0.47	-0.57	-0.56
1.5	-0.41	-0.41	-0.41	-0.94	-0.45	-0.44	-0.44	-0.43	-0.85	-0.75	-0.86	-0.85
2.0	-0.55	-0.55	-0.55	-1.25	-0.60	-0.59	-0.58	-0.57	-1.13	-1.02	-1.14	-1.13
2.5	-0.70	-0.69	-0.69	-1.55	-0.74	-0.73	-0.72	-0.71	-1.40	-1.29	-1.43	-1.42
3.0	-0.84	-0.83	-0.83	-1.85	-0.89	-0.88	-0.86	-0.85	-1.67	-1.56	-1.71	-1.70
3.5	-0.98	-0.98	-0.97	-2.15	-1.04	-1.02	-1.01	-0.99	-1.94	-1.83	-2.00	-1.98
4.0	-1.13	-1.12	-1.11	-2.45	-1.18	-1.17	-1.15	-1.13	-2.21	-2.09	-2.28	-2.26
4.5	-1.27	-1.26	-1.24	-2.75	-1.33	-1.31	-1.29	-1.27	-2.48	-2.35	-2.57	-2.55
5.0	-1.41	-1.40	-1.38	-3.05	-1.47	-1.45	-1.43	-1.41	-2.74	-2.61	-2.85	-2.83
5.5	-1.55	-1.54	-1.52	-3.34	-1.62	-1.60	-1.57	-1.55	-3.00	-2.87	-3.13	-3.11
6.0	-1.70	-1.68	-1.66	-3.63	-1.77	-1.74	-1.72	-1.69	-3.26	-3.12	-3.41	-3.39
6.5	-1.84	-1.82	-1.80	-3.92	-1.91	-1.89	-1.86	-1.83	-3.52	-3.37	-3.70	-3.67
7.0	-1.98	-1.96	-1.94	-4.21	-2.06	-2.03	-2.00	-1.97	-3.77	-3.62	-3.98	-3.95
7.5	-2.12	-2.11	-2.08	-4.50	-2.20	-2.17	-2.14	-2.11	-4.02	-3.87	-4.26	-4.23
8.0	-2.26	-2.25	-2.22	-4.78	-2.35	-2.32	-2.28	-2.25	-4.27	-4.11	-4.54	-4.50
8.5	-2.41	-2.39	-2.35	-5.06	-2.49	-2.46	-2.42	-2.39	-4.47	-4.31	-4.92	-4.90
9.0	-2.55	-2.53	-2.49	-5.34	-2.64	-2.60	-2.56	-2.52	-4.66	-4.50	-5.18	-5.33
9.5	-2.69	-2.67	-2.63	-5.62	-2.79	-2.75	-2.70	-2.66	-4.86	-4.69	-5.36	-5.76
10.0	-2.83	-2.81	-2.77	-5.90	-2.93	-2.89	-2.85	-2.80	-5.06	-4.89	-5.55	-6.19
10.5	-2.97	-2.95	-2.91	-6.17	-3.08	-3.03	-2.99	-2.94	-5.27	-5.10	-5.76	-6.36
11.0	-3.11	-3.09	-3.04	-6.44	-3.22	-3.17	-3.13	-3.08	-5.49	-5.32	-5.97	-6.56
11.5	-3.25	-3.23	-3.18	-6.71	-3.37	-3.32	-3.27	-3.22	-5.71	-5.53	-6.18	-6.77
12.0	-3.40	-3.37	-3.32	-6.97	-3.51	-3.46	-3.41	-3.35	-5.93	-5.75	-6.39	-6.98
12.5	-3.54	-3.51	-3.46	-7.24	-3.65	-3.60	-3.55	-3.49	-6.16	-5.97	-6.61	-7.19
13.0	-3.68	-3.65	-3.59	-7.50	-3.80	-3.74	-3.69	-3.63	-6.39	-6.20	-6.83	-7.41
13.5	-3.82	-3.79	-3.73	-7.76	-3.94	-3.89	-3.83	-3.77	-6.62	-6.43	-7.06	-7.63
14.0	-3.96	-3.93	-3.87	-8.01	-4.09	-4.03	-3.97	-3.91	-6.44	-6.22	-6.96	-7.65
14.5	-4.10	-4.07	-4.00	-8.26	-4.23	-4.17	-4.11	-4.04	-5.88	-5.64	-6.48	-7.27
15.0	-4.24	-4.20	-4.14	-8.50	-4.37	-4.31	-4.25	-4.18	-5.20	-4.96	-5.80	-6.59
15.5	-4.38	-4.34	-4.28	-8.73	-4.52	-4.45	-4.39	-4.32	-4.52	-4.28	-5.12	-5.91
16.0	-4.52	-4.48	-4.41	-8.95	-4.66	-4.59	-4.52	-4.45	-3.84	-3.59	-4.44	-5.22
16.5	-4.66	-4.62	-4.55	-9.16	-4.81	-4.74	-4.66	-4.59	-3.15	-2.91	-3.75	-4.54
17.0	-4.80	-4.76	-4.69	-9.35	-4.95	-4.88	-4.80	-4.73	-2.47	-2.23	-3.07	-3.86
17.5	-4.94	-4.90	-4.82	-9.25	-5.09	-5.02	-4.94	-4.87	-1.79	-1.55	-2.39	-3.18
18.0	-5.08	-5.04	-4.96	-8.67	-5.24	-5.16	-5.08	-5.00	-1.11	-0.87	-1.71	-2.49
18.5	-5.22	-5.18	-5.10	-8.14	-5.38	-5.30	-5.22	-5.14	-0.43	-0.18	-1.03	-1.81
19.0	-5.36	-5.31	-5.23	-7.61	-5.52	-5.44	-5.36	-5.28	0.25	0.50	-0.34	-1.13
19.5	-5.50	-5.45	-5.37	-7.11	-5.66	-5.58	-5.50	-5.41	0.93	1.17	0.33	-0.45
20.0	-5.64	-5.59	-5.50	-6.65	-5.81	-5.72	-5.64	-5.55	1.61	1.85	1.01	0.23
20.5	-5.77	-5.73	-5.64	-6.17	-5.95	-5.86	-5.77	-5.68	2.29	2.53	1.69	0.90
21.0	-5.91	-5.87	-5.78	-5.50	-6.09	-6.00	-5.91	-5.82	2.96	3.20	2.36	1.58
21.5	-6.05	-6.00	-5.91	-4.82	-6.23	-6.14	-6.05	-5.96	3.63	3.87	3.03	2.25
22.0	-6.19	-6.14	-6.05	-4.14	-6.38	-6.28	-6.19	-6.09	4.30	4.54	3.70	2.92
22.5	-6.33	-6.28	-6.19	-3.47	-6.52	-6.42	-6.33	-6.23	4.96	5.20	4.37	3.58
23.0	-6.47	-6.42	-6.32	-2.79	-6.66	-6.56	-6.46	-6.36	5.61	5.86	5.02	4.24
23.5	-6.61	-6.56	-6.46	-2.12	-6.80	-6.70	-6.60	-6.50	6.26	6.51	5.68	4.90
24.0	-6.75	-6.69	-6.60	-1.44	-6.94	-6.84	-6.74	-6.63	6.90	7.15	6.32	5.54
24.5	-6.88	-6.83	-6.73	-0.77	-7.09	-6.98	-6.88	-6.77	7.53	7.78	6.95	6.18
25.0	-7.02	-6.97	-6.87	-0.10	-7.23	-7.12	-7.01	-6.90	8.15	8.39	7.57	6.80

	6.9 WR21A1	6.8 WR 21A1	6.6WR21A 1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1	7.6 WR55A1	7.5 WR55A1
ΔH (kJ)	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*	*DV*
25.5	-7.16	-7.11	-7.01	0.58	-7.37	-7.26	-7.15	-7.04	8.75	8.99	8.17	7.41
26.0	-7.30	-7.25	-7.14	1.25	-7.51	-7.40	-7.29	-7.17	9.32	9.56	8.75	8.00
26.5	-7.44	-7.38	-7.28	1.92	-7.65	-7.54	-7.42	-7.31	9.87	10.1	9.31	8.56
27.0	-7.58	-7.52	-7.42	2.58	-7.79	-7.68	-7.56	-7.44	10.4	10.6	9.83	9.09
27.5	-7.72	-7.66	-7.55	3.24	-7.93	-7.82	-7.70	-7.58	10.8	11.1	10.3	9.57
28.0	-7.63	-7.80	-7.69	3.90	-8.07	-7.95	-7.83	-7.71	11.2	11.5	10.7	10.0
28.5	-7.50	-7.94	-7.83	4.56	-8.21	-8.09	-7.97	-7.84	11.6	11.8	11.1	10.4
29.0	-7.36	-8.08	-7.97	5.21	-8.35	-8.23	-8.11	-8.00	11.8	12.0	11.3	10.7
29.5	-7.22	-8.03	-8.10	5.85	-8.49	-8.38	-8.29	-8.21	11.8	12.0	11.3	10.7
30.0	-7.09	-7.89	-8.24	6.49	-8.69	-8.59	-8.50	-8.41	11.8	12.0	11.4	10.8
30.5	-6.95	-7.75	-8.38	7.11	-8.90	-8.81	-8.71	-8.62			11.4	10.8
31.0	-6.82	-7.62	-8.51	7.72	-9.12	-9.02	-8.92	-8.83				
31.5	-6.68	-7.48	-8.65	8.31	-9.33	-9.23	-9.13	-9.04				
32.0	-6.55	-7.34	-8.79	8.87	-9.54	-9.44	-9.34	-9.25				
32.5	-6.42	-7.21	-8.73	9.41	-9.75	-9.66	-9.57	-9.48				
33.0	-6.29	-7.07	-8.59	9.90	-9.98	-9.88	-9.79	-9.69				
33.5	-6.15	-6.94	-8.45		-10.2	-10.1	-10.0	-9.90				
34.0	-6.02	-6.81	-8.31		-10.4	-10.3	-10.2	-10.1				
34.5	-5.89	-6.67	-8.18		-10.4	-10.6	-10.4	-10.3				
35.0	-5.77	-6.54	-8.04		-10.5	-10.8	-10.6	-10.5				
35.5	-5.64	-6.41	-7.90		-10.3	-11.0	-10.8	-10.7				
36.0	-5.51	-6.28	-7.77		-10.0	-11.2	-11.0	-10.9				
36.5	-5.38	-6.15	-7.63		-9.74	-11.4	-11.2	-11.1				
37.0	-5.26	-6.02	-7.50		-9.47	-10.9	-11.5	-11.3				
37.5	-5.13	-5.90	-7.36		-9.21	-10.6	-11.7	-11.5				
38.0	-5.01	-5.77	-7.23		-8.96	-10.4	-11.9	-11.7				
38.5	-4.81	-5.61	-7.10		-8.67	-10.1	-11.6	-11.9				
39.0	-4.58	-5.38	-6.91		-8.41	-9.85	-11.3	-12.2				
39.5	-4.36	-5.16	-6.69		-8.18	-9.59	-11.0	-12.4				
40.0	-4.15	-4.94	-6.46		-7.94	-9.35	-10.8	-12.2				
40.5	-3.93	-4.72	-6.24		-7.70	-9.11	-10.5	-11.9				
41.0	-3.72	-4.51	-6.02		-7.47	-8.88	-10.3	-11.7				
41.5	-3.51	-4.29	-5.80		-7.22	-8.64	-10.0	-11.4				
42.0	-3.30	-4.08	-5.59		-6.88	-8.38	-9.80	-11.2				
42.5	-3.09	-3.88	-5.37		-6.54	-8.04	-9.52	-10.9				
43.0	-2.89	-3.67	-5.16		-6.21	-7.70	-9.18	-10.7				
43.5	-2.69	-3.47	-4.95		-5.87	-7.36	-8.85	-10.3				
44.0	-2.49	-3.26	-4.75		-5.53	-7.02	-8.51	-9.98				
44.5	-2.29	-3.07	-4.55		-5.19	-6.69	-8.17	-9.64				
45.0	-2.10	-2.87	-4.35		-4.85	-6.35	-7.83	-9.30				
45.5	-1.91	-2.68	-4.15		-4.51	-6.01	-7.49	-8.96				
46.0	-1.72	-2.49	-3.95		-4.18	-5.67	-7.15	-8.62				
46.5	-1.54	-2.30	-3.76		-3.84	-5.33	-6.82	-8.29				
47.0	-1.36	-2.12	-3.57		-3.50	-5.00	-6.48	-7.95				
47.5	-1.18	-1.94	-3.39		-3.16	-4.66	-6.14	-7.61				
48.0	-1.01	-1.76	-3.20		-2.83	-4.32	-5.80	-7.27				
48.5	-0.83	-1.59	-3.02		-2.49	-3.98	-5.46	-6.93				
49.0	-0.67	-1.41	-2.85		-2.15	-3.65	-5.13	-6.59				
49.5	-0.50	-1.25	-2.67		-1.81	-3.31	-4.79	-6.26				
50.0	-0.34	-1.08	-2.51		-1.48	-2.97	-4.45	-5.92				
50.5	-0.18	-0.92	-2.34		-1.14	-2.63	-4.11	-5.58				

ΔH (kJ)	6.9 WR21A1 DV	6.8 WR 21A1 DV	6.6WR21A 1 DV	7.9 WR23A4 DV	7.7 WR23A4 DV	7.5 WR23A4 DV	7.3 WR23A4 DV	7.1 WR23A4 DV	7.8 WR55A1 DV	7.71 WR55A1 DV	7.6 WR55A1 DV	7.5 WR55A1 DV
51.0	-0.03	-0.76	-2.18		-0.81	-2.30	-3.78	-5.25				
51.5	0.12	-0.61	-2.02		-0.47	-1.96	-3.44	-4.91				
52.0	0.27	-0.46	-1.86		-0.13	-1.63	-3.10	-4.57				
52.5	0.41	-0.32	-1.71		0.20	-1.29	-2.77	-4.24				
53.0	0.55	-0.17	-1.56		0.54	-0.96	-2.43	-3.90				
53.5	0.69	-0.04	-1.42		0.87	-0.62	-2.10	-3.56				
54.0	0.92	0.16	-1.28		1.20	-0.29	-1.76	-3.23				
54.5	1.14	0.38	-1.05		1.54	0.05	-1.43	-2.89				
55.0	1.35	0.60	-0.83		1.87	0.38	-1.10	-2.56				
55.5	1.57	0.82	-0.61		2.20	0.71	-0.76	-2.23				
56.0	1.77	1.03	-0.39		2.53	1.04	-0.43	-1.89				
56.5	1.98	1.23	-0.18		2.86	1.37	-0.10	-1.56				
57.0	2.17	1.43	0.02		3.19	1.70	0.23	-1.23				
57.5	2.37	1.63	0.22		3.51	2.03	0.56	-0.90				
58.0	2.55	1.82	0.42		3.84	2.36	0.89	-0.57				
58.5	2.71	2.00	0.61		4.16	2.69	1.22	-0.24				
59.0	2.84	2.13	0.75		4.49	3.01	1.54	0.09				
59.5	2.97	2.26	0.88		4.81	3.33	1.87	0.42				
60.0	3.09	2.39	1.01		5.13	3.65	2.19	0.74				
60.5	3.11	2.49	1.14		5.44	3.97	2.51	1.06				
61.0	3.06	2.43	1.20			4.29	2.83	1.38				
61.5	3.00	2.37	1.15			4.60	3.15	1.70				
62.0	2.94	2.32	1.09			4.91	3.46	2.02				
62.5	2.89	2.26	1.04			5.22	3.77	2.33				
63.0	2.83	2.21	0.98			5.52	4.08	2.64				
63.5	2.87	2.16	0.93			5.82	4.38	2.95				
64.0	3.01	2.30	0.93			6.11	4.68	3.25				
64.5		2.43	1.07			6.40	4.97	3.55				
65.0						6.68	5.26	3.84				
65.5						6.95	5.54	4.13				
66.0						7.21	5.81	4.41				
66.5						7.46	6.07	4.68				
67.0						7.70	6.32	4.94				
67.5						7.93	6.56	5.19				
68.0						8.14	6.79	5.43				
68.5						8.34	7.00	5.66				
69.0						8.51	7.19	5.87				
69.5							7.37	6.06				

	7.4 WR55A1	7.3 WR55A1	7.1 WR12A1	7.0 WR12A1	6.9 WR21A1	6.8 WR 21A1	6.6WR21A 1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4
ΔH (kJ)	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*V*	*V*	*V*	*V*
0.0	0.00	0.00	484.8	483.8	482.8	481.8	479.7	492.3	490.3	488.4	486.5
0.5	-0.28	-0.28	484.7	483.6	482.6	481.6	479.6	492.0	490.1	488.2	486.3
1.0	-0.56	-0.56	484.5	483.5	482.5	481.5	479.4	491.7	490.0	488.1	486.2
1.5	-0.84	-0.84	484.4	483.4	482.4	481.3	479.3	491.4	489.8	487.9	486.0
2.0	-1.12	-1.12	484.2	483.2	482.2	481.2	479.1	491.1	489.7	487.8	485.9
2.5	-1.41	-1.39	484.1	483.1	482.1	481.1	479.0	490.8	489.6	487.6	485.7
3.0	-1.69	-1.67	483.9	482.9	481.9	480.9	478.9	490.5	489.4	487.5	485.6
3.5	-1.97	-1.95	483.8	482.8	481.8	480.8	478.7	490.2	489.3	487.4	485.5
4.0	-2.25	-2.23	483.6	482.6	481.6	480.6	478.6	489.9	489.1	487.2	485.3
4.5	-2.53	-2.51	483.5	482.5	481.5	480.5	478.4	489.6	489.0	487.1	485.2
5.0	-2.81	-2.78	483.4	482.4	481.4	480.4	478.3	489.3	488.8	486.9	485.0
5.5	-3.08	-3.06	483.2	482.2	481.2	480.2	478.2	489.0	488.7	486.8	484.9
6.0	-3.36	-3.34	483.1	482.1	481.1	480.1	478.0	488.7	488.5	486.6	484.7
6.5	-3.64	-3.61	482.9	481.9	480.9	479.9	477.9	488.4	488.4	486.5	484.6
7.0	-3.92	-3.89	482.8	481.8	480.8	479.8	477.7	488.1	488.2	486.3	484.5
7.5	-4.19	-4.16	482.6	481.6	480.6	479.7	477.6	487.8	488.1	486.2	484.3
8.0	-4.47	-4.45	482.5	481.5	480.5	479.5	477.5	487.5	487.9	486.1	484.2
8.5	-4.89	-4.87	482.3	481.4	480.4	479.4	477.3	487.3	487.8	485.9	484.0
9.0	-5.31	-5.30	482.2	481.2	480.2	479.2	477.2	487.0	487.7	485.8	483.9
9.5	-5.74	-5.72	482.1	481.1	480.1	479.1	477.1	486.7	487.5	485.6	483.8
10.0	-6.17	-6.14	481.9	480.9	479.9	478.9	476.9	486.4	487.4	485.5	483.6
10.5	-6.59	-6.57	481.8	480.8	479.8	478.8	476.8	486.2	487.2	485.3	483.5
11.0	-7.01	-6.99	481.6	480.6	479.7	478.7	476.6	485.9	487.1	485.2	483.3
11.5	-7.43	-7.40	481.5	480.5	479.5	478.5	476.5	485.6	486.9	485.1	483.2
12.0	-7.57	-7.82	481.3	480.4	479.4	478.4	476.4	485.3	486.8	484.9	483.1
12.5	-7.78	-8.23	481.2	480.2	479.2	478.2	476.2	485.1	486.6	484.8	482.9
13.0	-7.99	-8.64	481.1	480.1	479.1	478.1	476.1	484.8	486.5	484.6	482.8
13.5	-8.21	-8.78	480.9	479.9	479.0	478.0	476.0	484.6	486.4	484.5	482.6
14.0	-8.34	-9.00	480.8	479.8	478.8	477.8	475.8	484.3	486.2	484.4	482.5
14.5	-8.06	-8.75	480.6	479.6	478.7	477.7	475.7	484.1	486.1	484.2	482.4
15.0	-7.37	-8.16	480.5	479.5	478.5	477.6	475.5	483.8	485.9	484.1	482.2
15.5	-6.69	-7.47	480.3	479.4	478.4	477.4	475.4	483.6	485.8	483.9	482.1
16.0	-6.01	-6.79	480.2	479.2	478.3	477.3	475.3	483.4	485.6	483.8	481.9
16.5	-5.32	-6.11	480.1	479.1	478.1	477.1	475.1	483.2	485.5	483.6	481.8
17.0	-4.64	-5.42	479.9	478.9	478.0	477.0	475.0	483.0	485.3	483.5	481.7
17.5	-3.96	-4.74	479.8	478.8	477.8	476.9	474.9	483.1	485.2	483.4	481.5
18.0	-3.28	-4.06	479.6	478.7	477.7	476.7	474.7	483.7	485.1	483.2	481.4
18.5	-2.60	-3.38	479.5	478.5	477.6	476.6	474.6	484.2	484.9	483.1	481.2
19.0	-1.91	-2.69	479.3	478.4	477.4	476.4	474.5	484.7	484.8	482.9	481.1
19.5	-1.23	-2.01	479.2	478.2	477.3	476.3	474.3	485.2	484.6	482.8	481.0
20.0	-0.56	-1.33	479.1	478.1	477.1	476.2	474.2	485.7	484.5	482.7	480.8
20.5	0.12	-0.66	478.9	478.0	477.0	476.0	474.0	486.1	484.3	482.5	480.7
21.0	0.80	0.02	478.8	477.8	476.9	475.9	473.9	486.8	484.2	482.4	480.5
21.5	1.47	0.69	478.6	477.7	476.7	475.8	473.8	487.5	484.1	482.2	480.4
22.0	2.14	1.36	478.5	477.5	476.6	475.6	473.6	488.2	483.9	482.1	480.3
22.5	2.81	2.03	478.4	477.4	476.4	475.5	473.5	488.9	483.8	482.0	480.1
23.0	3.47	2.69	478.2	477.3	476.3	475.3	473.4	489.5	483.6	481.8	480.0
23.5	4.12	3.35	478.1	477.1	476.2	475.2	473.2	490.2	483.5	481.7	479.9
24.0	4.77	4.00	477.9	477.0	476.0	475.1	473.1	490.9	483.3	481.5	479.7
24.5	5.41	4.64	477.8	476.8	475.9	474.9	473.0	491.6	483.2	481.4	479.6
25.0	6.04	5.28	478.0	476.7	475.7	474.8	472.8	492.2	483.1	481.3	479.4

	7.4 WR55A1	7.3 WR55A1	7.1 WR12A1	7.0 WR12A1	6.9 WR21A1	6.8 WR 21A1	6.6WR21A 1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4
ΔH (kJ)	*DV*	*DV*	*V*	*V*	*V*	*V*	*V*	*V*	*V*	*V*	*V*
25.5	6.65	5.89	478.1	476.6	475.6	474.6	472.7	492.9	482.9	481.1	479.3
26.0	7.24	6.49	478.3	476.4	475.5	474.5	472.5	493.6	482.8	481.0	479.2
26.5	7.81	7.07	478.4	476.6	475.3	474.4	472.4	494.2	482.6	480.8	479.0
27.0	8.35	7.61	478.5	476.7	475.2	474.2	472.3	494.9	482.5	480.7	478.9
27.5	8.85	8.12	478.7	476.8	475.1	474.1	472.1	495.6	482.4	480.6	478.8
28.0	9.30	8.59	478.8	477.0	475.1	474.0	472.0	496.2	482.2	480.4	478.6
28.5	9.69	8.99	478.9	477.1	475.3	473.8	471.9	496.9	482.1	480.3	478.5
29.0	10.0	9.34	479.0	477.2	475.4	473.7	471.7	497.5	481.9	480.1	478.4
29.5	10.1	9.48	479.2	477.4	475.5	473.7	471.6	498.2	481.8	480.0	478.2
30.0	10.1	9.52	479.3	477.5	475.7	473.9	471.4	498.8	481.6	479.8	478.0
30.5	10.2	9.54	479.4	477.6	475.8	474.0	471.3	499.4	481.4	479.6	477.7
31.0			479.6	477.8	476.0	474.1	471.2	500.0	481.2	479.4	477.5
31.5			479.7	477.9	476.1	474.3	471.0	500.6	481.0	479.1	477.3
32.0			479.8	478.0	476.2	474.4	470.9	501.2	480.8	478.9	477.1
32.5			480.0	478.2	476.4	474.5	471.0	501.7	480.5	478.7	476.9
33.0			480.1	478.3	476.5	474.7	471.1	502.2	480.3	478.5	476.7
33.5			480.2	478.4	476.6	474.8	471.2		480.1	478.3	476.4
34.0			480.3	478.5	476.7	475.0	471.4		479.9	478.0	476.2
34.5			480.5	478.7	476.9	475.1	471.5		479.8	477.8	476.0
35.0			480.6	478.8	477.0	475.2	471.6		479.8	477.6	475.8
35.5			480.7	478.9	477.1	475.3	471.8		480.0	477.4	475.6
36.0			480.8	479.0	477.3	475.5	471.9		480.3	477.2	475.4
36.5			480.9	479.2	477.4	475.6	472.1		480.6	477.0	475.2
37.0			481.1	479.3	477.5	475.7	472.2		480.8	477.5	475.0
37.5			481.2	479.4	477.6	475.9	472.3		481.1	477.7	474.8
38.0			481.4	479.6	477.8	476.0	472.5		481.3	478.0	474.6
38.5			481.6	479.8	478.0	476.1	472.6		481.6	478.2	474.9
39.0			481.8	480.0	478.2	476.4	472.8		481.9	478.5	475.1
39.5			482.0	480.2	478.4	476.6	473.0		482.1	478.8	475.5
40.0			482.2	480.4	478.6	476.8	473.2		482.4	479.0	475.7
40.5			482.5	480.6	478.8	477.0	473.4		482.6	479.3	475.9
41.0			482.7	480.9	479.1	477.2	473.7		482.8	479.5	476.2
41.5			482.9	481.1	479.3	477.5	473.9		483.1	479.7	476.4
42.0			483.1	481.3	479.5	477.7	474.1		483.4	480.0	476.7
42.5			483.3	481.5	479.7	477.9	474.3		483.7	480.3	476.9
43.0			483.5	481.7	479.9	478.1	474.5		484.1	480.7	477.3
43.5			483.7	481.9	480.1	478.3	474.7		484.4	481.0	477.6
44.0			483.9	482.1	480.3	478.5	474.9		484.8	481.4	478.0
44.5			484.0	482.3	480.5	478.7	475.1		485.1	481.7	478.3
45.0			484.2	482.5	480.7	478.9	475.3		485.4	482.0	478.6
45.5			484.4	482.6	480.9	479.1	475.5		485.8	482.4	479.0
46.0			484.6	482.8	481.0	479.3	475.7		486.1	482.7	479.3
46.5			484.8	483.0	481.2	479.5	475.9		486.5	483.0	479.6
47.0			485.0	483.2	481.4	479.6	476.1		486.8	483.4	480.0
47.5			485.1	483.4	481.6	479.8	476.3		487.1	483.7	480.3
48.0			485.3	483.5	481.8	480.0	476.5		487.5	484.1	480.7
48.5			485.5	483.7	481.9	480.2	476.7		487.8	484.4	481.0
49.0			485.6	483.9	482.1	480.3	476.8		488.1	484.7	481.3
49.5			485.8	484.0	482.3	480.5	477.0		488.5	485.1	481.7
50.0			485.9	484.2	482.4	480.7	477.2		488.8	485.4	482.0
50.5			486.1	484.3	482.6	480.8	477.3		489.2	485.7	482.3

ΔH (kJ)	7.4 WR55A1 DV	7.3 WR55A1 DV	7.1 WR12A1 V	7.0 WR12A1 V	6.9 WR21A1 V	6.8 WR 21A1 V	6.6WR21A 1 V	7.9 WR23A4 V	7.7 WR23A4 V	7.5 WR23A4 V	7.3 WR23A4 V
51.0			486.2	484.5	482.7	481.0	477.5		489.5	486.1	482.7
51.5			486.4	484.6	482.9	481.1	477.7		489.8	486.4	483.0
52.0			486.5	484.8	483.0	481.3	477.8		490.2	486.8	483.4
52.5			486.7	484.9	483.2	481.4	478.0		490.5	487.1	483.7
53.0			486.8	485.1	483.3	481.6	478.1		490.8	487.4	484.0
53.5			487.0	485.2	483.5	481.7	478.3		491.2	487.8	484.4
54.0			487.2	485.5	483.7	481.9	478.4		491.5	488.1	484.7
54.5			487.4	485.7	483.9	482.1	478.6		491.8	488.4	485.0
55.0			487.7	485.9	484.1	482.4	478.9		492.2	488.8	485.4
55.5			487.9	486.1	484.3	482.6	479.1		492.5	489.1	485.7
56.0			488.1	486.3	484.5	482.8	479.3		492.8	489.4	486.0
56.5			488.3	486.5	484.7	483.0	479.5		493.2	489.8	486.4
57.0			488.5	486.7	484.9	483.2	479.7		493.5	490.1	486.7
57.5			488.6	486.9	485.1	483.4	479.9		493.8	490.4	487.0
58.0			488.8	487.1	485.3	483.6	480.1		494.1	490.7	487.3
58.5			488.9	487.2	485.5	483.8	480.3		494.5	491.1	487.7
59.0			489.1	487.3	485.6	483.9	480.4		494.8	491.4	488.0
59.5			489.2	487.5	485.7	484.0	480.6		495.1	491.7	488.3
60.0			489.2	487.6	485.9	484.1	480.7		495.4	492.0	488.6
60.5			489.2	487.5	485.9	484.2	480.8		495.7	492.4	489.0
61.0			489.1	487.5	485.8	484.2	480.9			492.7	489.3
61.5			489.0	487.4	485.8	484.1	480.8			493.0	489.6
62.0			489.0	487.4	485.7	484.1	480.8			493.3	489.9
62.5			488.9	487.3	485.7	484.0	480.7			493.6	490.2
63.0			489.0	487.2	485.6	484.0	480.7			493.9	490.5
63.5			489.1	487.4	485.6	483.9	480.6			494.2	490.8
64.0			489.2	487.5	485.8	484.1	480.6			494.5	491.1
64.5			489.3			484.2	480.8			494.8	491.4
65.0			489.4							495.1	491.7
65.5			489.6							495.3	492.0
66.0			489.6							495.6	492.3
66.5			489.7							495.8	492.5
67.0			489.8							496.1	492.8
67.5			489.9							496.3	493.0
68.0			489.9							496.5	493.2
68.5			490.0							496.7	493.5
69.0			490.0							496.9	493.7
69.5			490.1								493.8

	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1	7.6 WR55A1	7.5 WR55A1	7.4 WR55A1	7.3 WR55A1	7.1 WR12A1	7.0 WR12A1	6.9 WR21A1	6.8 WR 21A1
ΔH (kJ)	*V*	*V*	*V*	*V*	*V*	*V*	*V*	*beta*	*beta*	*beta*	*beta*
0.0	492.3	491.4	489.8	488.8	487.8	486.9	486.0	1.86E-05	1.85E-05	1.83E-05	1.82E-05
0.5	492.0	491.1	489.5	488.5	487.6	486.6	485.7	1.86E-05	1.84E-05	1.83E-05	1.82E-05
1.0	491.7	490.8	489.3	488.2	487.3	486.4	485.4	1.85E-05	1.84E-05	1.83E-05	1.82E-05
1.5	491.4	490.6	489.1	487.9	487.0	486.1	485.1	1.85E-05	1.84E-05	1.83E-05	1.82E-05
2.0	491.1	490.3	488.8	487.6	486.7	485.8	484.9	1.85E-05	1.84E-05	1.83E-05	1.82E-05
2.5	490.8	490.0	488.5	487.4	486.4	485.5	484.6	1.85E-05	1.84E-05	1.83E-05	1.82E-05
3.0	490.5	489.7	488.3	487.1	486.1	485.2	484.3	1.85E-05	1.84E-05	1.83E-05	1.81E-05
3.5	490.2	489.5	488.0	486.8	485.9	484.9	484.0	1.85E-05	1.84E-05	1.83E-05	1.81E-05
4.0	489.9	489.2	487.7	486.5	485.6	484.7	483.7	1.85E-05	1.84E-05	1.82E-05	1.81E-05
4.5	489.6	488.9	487.5	486.2	485.3	484.4	483.5	1.85E-05	1.83E-05	1.82E-05	1.81E-05
5.0	489.3	488.7	487.2	485.9	485.0	484.1	483.2	1.84E-05	1.83E-05	1.82E-05	1.81E-05
5.5	489.0	488.4	486.9	485.6	484.7	483.8	482.9	1.84E-05	1.83E-05	1.82E-05	1.81E-05
6.0	488.7	488.2	486.7	485.4	484.5	483.6	482.6	1.84E-05	1.83E-05	1.82E-05	1.81E-05
6.5	488.4	487.9	486.4	485.1	484.2	483.3	482.4	1.84E-05	1.83E-05	1.82E-05	1.81E-05
7.0	488.1	487.6	486.2	484.8	483.9	483.0	482.1	1.84E-05	1.83E-05	1.82E-05	1.80E-05
7.5	487.8	487.4	485.9	484.5	483.6	482.7	481.8	1.84E-05	1.83E-05	1.81E-05	1.80E-05
8.0	487.5	487.1	485.7	484.2	483.3	482.4	481.5	1.84E-05	1.82E-05	1.81E-05	1.80E-05
8.5	487.3	486.9	485.5	483.9	482.9	482.0	481.1	1.83E-05	1.82E-05	1.81E-05	1.80E-05
9.0	487.0	486.8	485.3	483.6	482.5	481.6	480.7	1.83E-05	1.82E-05	1.81E-05	1.80E-05
9.5	486.7	486.6	485.1	483.4	482.1	481.2	480.3	1.83E-05	1.82E-05	1.81E-05	1.80E-05
10.0	486.4	486.4	484.9	483.2	481.7	480.7	479.8	1.83E-05	1.82E-05	1.81E-05	1.80E-05
10.5	486.2	486.1	484.7	483.0	481.5	480.3	479.4	1.83E-05	1.82E-05	1.81E-05	1.80E-05
11.0	485.9	485.9	484.5	482.8	481.3	479.9	479.0	1.83E-05	1.82E-05	1.81E-05	1.79E-05
11.5	485.6	485.7	484.3	482.6	481.1	479.5	478.6	1.83E-05	1.82E-05	1.80E-05	1.79E-05
12.0	485.3	485.5	484.1	482.4	480.9	479.3	478.2	1.83E-05	1.81E-05	1.80E-05	1.79E-05
12.5	485.1	485.3	483.8	482.2	480.7	479.1	477.7	1.82E-05	1.81E-05	1.80E-05	1.79E-05
13.0	484.8	485.0	483.6	481.9	480.4	478.9	477.3	1.82E-05	1.81E-05	1.80E-05	1.79E-05
13.5	484.6	484.8	483.4	481.7	480.2	478.7	477.2	1.82E-05	1.81E-05	1.80E-05	1.79E-05
14.0	484.3	485.0	483.6	481.8	480.2	478.6	477.0	1.82E-05	1.81E-05	1.80E-05	1.79E-05
14.5	484.1	485.5	484.2	482.3	480.6	478.9	477.2	1.82E-05	1.81E-05	1.80E-05	1.79E-05
15.0	483.8	486.2	484.9	483.0	481.3	479.5	477.8	1.82E-05	1.81E-05	1.80E-05	1.78E-05
15.5	483.6	486.9	485.5	483.7	481.9	480.2	478.5	1.82E-05	1.80E-05	1.79E-05	1.78E-05
16.0	483.4	487.6	486.2	484.3	482.6	480.9	479.2	1.81E-05	1.80E-05	1.79E-05	1.78E-05
16.5	483.2	488.3	486.9	485.0	483.3	481.6	479.9	1.81E-05	1.80E-05	1.79E-05	1.78E-05
17.0	483.0	488.9	487.6	485.7	484.0	482.3	480.6	1.81E-05	1.80E-05	1.79E-05	1.78E-05
17.5	483.1	489.6	488.3	486.4	484.7	483.0	481.2	1.81E-05	1.80E-05	1.79E-05	1.78E-05
18.0	483.7	490.3	488.9	487.1	485.4	483.6	481.9	1.81E-05	1.80E-05	1.79E-05	1.78E-05
18.5	484.2	491.0	489.6	487.8	486.0	484.3	482.6	1.81E-05	1.80E-05	1.79E-05	1.77E-05
19.0	484.7	491.7	490.3	488.4	486.7	485.0	483.3	1.81E-05	1.80E-05	1.78E-05	1.77E-05
19.5	485.2	492.3	491.0	489.1	487.4	485.7	484.0	1.80E-05	1.79E-05	1.78E-05	1.77E-05
20.0	485.7	493.0	491.7	489.8	488.1	486.4	484.6	1.80E-05	1.79E-05	1.78E-05	1.77E-05
20.5	486.1	493.7	492.3	490.5	488.8	487.0	485.3	1.80E-05	1.79E-05	1.78E-05	1.77E-05
21.0	486.8	494.4	493.0	491.1	489.4	487.7	486.0	1.80E-05	1.79E-05	1.78E-05	1.77E-05
21.5	487.5	495.0	493.7	491.8	490.1	488.4	486.7	1.80E-05	1.79E-05	1.78E-05	1.77E-05
22.0	488.2	495.7	494.3	492.5	490.8	489.1	487.3	1.80E-05	1.79E-05	1.78E-05	1.76E-05
22.5	488.9	496.4	495.0	493.1	491.4	489.7	488.0	1.80E-05	1.79E-05	1.77E-05	1.76E-05
23.0	489.5	497.0	495.7	493.8	492.1	490.4	488.7	1.79E-05	1.78E-05	1.77E-05	1.76E-05
23.5	490.2	497.7	496.3	494.5	492.7	491.0	489.3	1.79E-05	1.78E-05	1.77E-05	1.76E-05
24.0	490.9	498.3	497.0	495.1	493.4	491.7	490.0	1.79E-05	1.78E-05	1.77E-05	1.76E-05
24.5	491.6	499.0	497.6	495.7	494.0	492.3	490.6	1.79E-05	1.78E-05	1.77E-05	1.75E-05
25.0	492.2	499.6	498.2	496.4	494.7	493.0	491.3	1.81E-05	1.78E-05	1.76E-05	1.75E-05

ΔH (kJ)	7.1 WR23A4 V	7.8 WR55A1 V	7.71 WR55A1 V	7.6 WR55A1 V	7.5 WR55A1 V	7.4 WR55A1 V	7.3 WR55A1 V	7.1 WR12A1 beta	7.0 WR12A1 beta	6.9 WR21A1 beta	6.8 WR 21A1 beta
25.5	492.9	500.2	498.8	497.0	495.3	493.6	491.9	1.82E-05	1.77E-05	1.76E-05	1.75E-05
26.0	493.6	500.7	499.4	497.5	495.8	494.2	492.5	1.84E-05	1.77E-05	1.76E-05	1.75E-05
26.5	494.2	501.3	499.9	498.1	496.4	494.7	493.0	1.85E-05	1.79E-05	1.76E-05	1.75E-05
27.0	494.9	501.8	500.4	498.6	496.9	495.3	493.6	1.86E-05	1.80E-05	1.76E-05	1.74E-05
27.5	495.6	502.3	500.9	499.1	497.4	495.8	494.1	1.88E-05	1.81E-05	1.75E-05	1.74E-05
28.0	496.2	502.7	501.3	499.5	497.9	496.2	494.6	1.89E-05	1.83E-05	1.77E-05	1.74E-05
28.5	496.9	503.0	501.6	499.9	498.2	496.6	495.0	1.91E-05	1.84E-05	1.78E-05	1.74E-05
29.0	497.5	503.2	501.8	500.1	498.5	496.9	495.3	1.92E-05	1.86E-05	1.79E-05	1.74E-05
29.5	498.2	503.2	501.8	500.1	498.6	497.0	495.5	1.94E-05	1.87E-05	1.81E-05	1.75E-05
30.0	498.8	503.2	501.8	500.1	498.6	497.0	495.5	1.95E-05	1.89E-05	1.82E-05	1.76E-05
30.5	499.4			500.2	498.6	497.1	495.5	1.96E-05	1.90E-05	1.84E-05	1.77E-05
31.0	500.0							1.98E-05	1.91E-05	1.85E-05	1.79E-05
31.5	500.6							1.99E-05	1.93E-05	1.87E-05	1.80E-05
32.0	501.2							2.00E-05	1.94E-05	1.88E-05	1.82E-05
32.5	501.7							2.02E-05	1.96E-05	1.89E-05	1.83E-05
33.0	502.2							2.03E-05	1.97E-05	1.91E-05	1.85E-05
33.5								2.04E-05	1.98E-05	1.92E-05	1.86E-05
34.0								2.05E-05	2.00E-05	1.94E-05	1.87E-05
34.5								2.07E-05	2.01E-05	1.95E-05	1.89E-05
35.0								2.08E-05	2.02E-05	1.96E-05	1.90E-05
35.5								2.09E-05	2.03E-05	1.97E-05	1.91E-05
36.0								2.11E-05	2.05E-05	1.99E-05	1.93E-05
36.5								2.12E-05	2.06E-05	2.00E-05	1.94E-05
37.0								2.13E-05	2.07E-05	2.01E-05	1.95E-05
37.5								2.14E-05	2.08E-05	2.03E-05	1.97E-05
38.0								2.16E-05	2.10E-05	2.04E-05	1.98E-05
38.5								2.18E-05	2.12E-05	2.06E-05	2.00E-05
39.0								2.21E-05	2.15E-05	2.08E-05	2.02E-05
39.5								2.23E-05	2.17E-05	2.11E-05	2.04E-05
40.0								2.25E-05	2.19E-05	2.13E-05	2.07E-05
40.5								2.27E-05	2.21E-05	2.15E-05	2.09E-05
41.0								2.29E-05	2.23E-05	2.17E-05	2.11E-05
41.5								2.32E-05	2.26E-05	2.20E-05	2.13E-05
42.0								2.34E-05	2.28E-05	2.22E-05	2.16E-05
42.5								2.36E-05	2.30E-05	2.24E-05	2.18E-05
43.0								2.38E-05	2.32E-05	2.26E-05	2.20E-05
43.5								2.40E-05	2.34E-05	2.28E-05	2.22E-05
44.0								2.42E-05	2.36E-05	2.30E-05	2.24E-05
44.5								2.44E-05	2.38E-05	2.32E-05	2.26E-05
45.0								2.46E-05	2.40E-05	2.34E-05	2.28E-05
45.5								2.48E-05	2.42E-05	2.36E-05	2.30E-05
46.0								2.49E-05	2.44E-05	2.38E-05	2.32E-05
46.5								2.51E-05	2.46E-05	2.40E-05	2.34E-05
47.0								2.53E-05	2.48E-05	2.42E-05	2.36E-05
47.5								2.55E-05	2.49E-05	2.44E-05	2.38E-05
48.0								2.57E-05	2.51E-05	2.46E-05	2.40E-05
48.5								2.58E-05	2.53E-05	2.47E-05	2.42E-05
49.0								2.60E-05	2.55E-05	2.49E-05	2.43E-05
49.5								2.62E-05	2.56E-05	2.51E-05	2.45E-05
50.0								2.63E-05	2.58E-05	2.52E-05	2.47E-05
50.5								2.65E-05	2.60E-05	2.54E-05	2.49E-05

ΔH (kJ)	7.1 WR23A4 V	7.8 WR55A1 V	7.71 WR55A1 V	7.6 WR55A1 V	7.5 WR55A1 V	7.4 WR55A1 V	7.3 WR55A1 V	7.1 WR12A1 beta	7.0 WR12A1 beta	6.9 WR21A1 beta	6.8 WR 21A1 beta
51.0								2.66E-05	2.61E-05	2.56E-05	2.50E-05
51.5								2.68E-05	2.63E-05	2.57E-05	2.52E-05
52.0								2.69E-05	2.64E-05	2.59E-05	2.54E-05
52.5								2.71E-05	2.66E-05	2.60E-05	2.55E-05
53.0								2.72E-05	2.67E-05	2.62E-05	2.57E-05
53.5								2.74E-05	2.69E-05	2.63E-05	2.58E-05
54.0								2.77E-05	2.71E-05	2.66E-05	2.60E-05
54.5								2.79E-05	2.73E-05	2.68E-05	2.62E-05
55.0								2.81E-05	2.75E-05	2.70E-05	2.64E-05
55.5								2.83E-05	2.77E-05	2.72E-05	2.67E-05
56.0								2.85E-05	2.79E-05	2.74E-05	2.69E-05
56.5								2.87E-05	2.81E-05	2.76E-05	2.71E-05
57.0								2.89E-05	2.83E-05	2.78E-05	2.73E-05
57.5								2.90E-05	2.85E-05	2.80E-05	2.75E-05
58.0								2.92E-05	2.87E-05	2.82E-05	2.77E-05
58.5								2.94E-05	2.89E-05	2.84E-05	2.78E-05
59.0								2.96E-05	2.91E-05	2.86E-05	2.80E-05
59.5								2.98E-05	2.93E-05	2.87E-05	2.82E-05
60.0								3.00E-05	2.94E-05	2.89E-05	2.84E-05
60.5								3.01E-05	2.96E-05	2.91E-05	2.86E-05
61.0								3.03E-05	2.98E-05	2.93E-05	2.87E-05
61.5								3.04E-05	2.99E-05	2.94E-05	2.89E-05
62.0								3.06E-05	3.01E-05	2.96E-05	2.91E-05
62.5								3.07E-05	3.02E-05	2.97E-05	2.92E-05
63.0								3.09E-05	3.04E-05	2.99E-05	2.94E-05
63.5								3.10E-05	3.05E-05	3.00E-05	2.95E-05
64.0								3.12E-05	3.07E-05	3.02E-05	2.97E-05
64.5								3.13E-05			2.98E-05
65.0								3.15E-05			
65.5								3.16E-05			
66.0								3.17E-05			
66.5								3.18E-05			
67.0								3.19E-05			
67.5								3.20E-05			
68.0								3.21E-05			
68.5								3.22E-05			
69.0								3.22E-05			
69.5								3.23E-05			

	6.6WR21A1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1	7.6 WR55A1	7.5 WR55A1	7.4 WR55A1	7.3 WR55A1
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
0.0	1.80E-05	1.82E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.82E-05	1.77E-05	1.76E-05	1.75E-05	1.74E-05	1.73E-05
0.5	1.80E-05	1.81E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.81E-05	1.77E-05	1.76E-05	1.75E-05	1.74E-05	1.73E-05
1.0	1.80E-05	1.81E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.81E-05	1.77E-05	1.76E-05	1.75E-05	1.74E-05	1.73E-05
1.5	1.79E-05	1.81E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.81E-05	1.77E-05	1.75E-05	1.75E-05	1.74E-05	1.73E-05
2.0	1.79E-05	1.80E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.81E-05	1.77E-05	1.75E-05	1.74E-05	1.73E-05	1.72E-05
2.5	1.79E-05	1.80E-05	1.79E-05	1.77E-05	1.75E-05	1.73E-05	1.80E-05	1.77E-05	1.75E-05	1.74E-05	1.73E-05	1.72E-05
3.0	1.79E-05	1.80E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.80E-05	1.76E-05	1.75E-05	1.74E-05	1.73E-05	1.72E-05
3.5	1.79E-05	1.80E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.80E-05	1.76E-05	1.74E-05	1.73E-05	1.73E-05	1.72E-05
4.0	1.79E-05	1.79E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.80E-05	1.76E-05	1.74E-05	1.73E-05	1.72E-05	1.71E-05
4.5	1.79E-05	1.79E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.79E-05	1.76E-05	1.74E-05	1.73E-05	1.72E-05	1.71E-05
5.0	1.79E-05	1.79E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.79E-05	1.76E-05	1.74E-05	1.73E-05	1.72E-05	1.71E-05
5.5	1.78E-05	1.78E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.79E-05	1.76E-05	1.73E-05	1.72E-05	1.71E-05	1.70E-05
6.0	1.78E-05	1.78E-05	1.78E-05	1.76E-05	1.74E-05	1.72E-05	1.79E-05	1.75E-05	1.73E-05	1.72E-05	1.71E-05	1.70E-05
6.5	1.78E-05	1.78E-05	1.77E-05	1.76E-05	1.74E-05	1.72E-05	1.79E-05	1.75E-05	1.73E-05	1.72E-05	1.71E-05	1.70E-05
7.0	1.78E-05	1.78E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.79E-05	1.75E-05	1.72E-05	1.72E-05	1.71E-05	1.70E-05
7.5	1.78E-05	1.77E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.78E-05	1.75E-05	1.72E-05	1.71E-05	1.70E-05	1.69E-05
8.0	1.78E-05	1.77E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.78E-05	1.75E-05	1.72E-05	1.71E-05	1.70E-05	1.69E-05
8.5	1.78E-05	1.77E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.79E-05	1.75E-05	1.71E-05	1.70E-05	1.70E-05	1.69E-05
9.0	1.78E-05	1.77E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.79E-05	1.76E-05	1.72E-05	1.70E-05	1.69E-05	1.68E-05
9.5	1.77E-05	1.76E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.80E-05	1.76E-05	1.72E-05	1.69E-05	1.68E-05	1.67E-05
10.0	1.77E-05	1.76E-05	1.77E-05	1.75E-05	1.73E-05	1.71E-05	1.80E-05	1.77E-05	1.73E-05	1.69E-05	1.68E-05	1.67E-05
10.5	1.77E-05	1.76E-05	1.76E-05	1.74E-05	1.73E-05	1.71E-05	1.80E-05	1.77E-05	1.73E-05	1.69E-05	1.67E-05	1.66E-05
11.0	1.77E-05	1.76E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.77E-05	1.73E-05	1.70E-05	1.67E-05	1.66E-05
11.5	1.77E-05	1.75E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.78E-05	1.74E-05	1.70E-05	1.66E-05	1.65E-05
12.0	1.77E-05	1.75E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.78E-05	1.74E-05	1.70E-05	1.67E-05	1.64E-05
12.5	1.77E-05	1.75E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.78E-05	1.74E-05	1.71E-05	1.67E-05	1.64E-05
13.0	1.77E-05	1.75E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.78E-05	1.74E-05	1.71E-05	1.67E-05	1.63E-05
13.5	1.76E-05	1.75E-05	1.76E-05	1.74E-05	1.72E-05	1.70E-05	1.81E-05	1.78E-05	1.74E-05	1.71E-05	1.67E-05	1.64E-05
14.0	1.76E-05	1.75E-05	1.75E-05	1.74E-05	1.72E-05	1.70E-05	1.83E-05	1.80E-05	1.76E-05	1.72E-05	1.68E-05	1.64E-05
14.5	1.76E-05	1.74E-05	1.75E-05	1.73E-05	1.71E-05	1.70E-05	1.87E-05	1.84E-05	1.79E-05	1.75E-05	1.70E-05	1.66E-05
15.0	1.76E-05	1.74E-05	1.75E-05	1.73E-05	1.71E-05	1.69E-05	1.90E-05	1.88E-05	1.83E-05	1.79E-05	1.74E-05	1.70E-05
15.5	1.76E-05	1.75E-05	1.75E-05	1.73E-05	1.71E-05	1.69E-05	1.94E-05	1.91E-05	1.87E-05	1.83E-05	1.78E-05	1.74E-05
16.0	1.76E-05	1.75E-05	1.75E-05	1.73E-05	1.71E-05	1.69E-05	1.98E-05	1.95E-05	1.91E-05	1.86E-05	1.82E-05	1.78E-05
16.5	1.76E-05	1.75E-05	1.75E-05	1.73E-05	1.71E-05	1.69E-05	2.02E-05	1.99E-05	1.95E-05	1.90E-05	1.86E-05	1.82E-05
17.0	1.76E-05	1.76E-05	1.75E-05	1.73E-05	1.71E-05	1.69E-05	2.06E-05	2.03E-05	1.98E-05	1.94E-05	1.90E-05	1.86E-05
17.5	1.75E-05	1.77E-05	1.74E-05	1.73E-05	1.71E-05	1.69E-05	2.09E-05	2.07E-05	2.02E-05	1.98E-05	1.94E-05	1.89E-05
18.0	1.75E-05	1.81E-05	1.74E-05	1.72E-05	1.71E-05	1.69E-05	2.13E-05	2.11E-05	2.06E-05	2.02E-05	1.98E-05	1.93E-05
18.5	1.75E-05	1.84E-05	1.74E-05	1.72E-05	1.70E-05	1.69E-05	2.17E-05	2.14E-05	2.10E-05	2.06E-05	2.01E-05	1.97E-05
19.0	1.75E-05	1.86E-05	1.74E-05	1.72E-05	1.70E-05	1.68E-05	2.21E-05	2.18E-05	2.14E-05	2.09E-05	2.05E-05	2.01E-05
19.5	1.75E-05	1.89E-05	1.74E-05	1.72E-05	1.70E-05	1.68E-05	2.24E-05	2.22E-05	2.17E-05	2.13E-05	2.09E-05	2.05E-05
20.0	1.75E-05	1.92E-05	1.74E-05	1.72E-05	1.70E-05	1.68E-05	2.28E-05	2.25E-05	2.21E-05	2.17E-05	2.13E-05	2.09E-05
20.5	1.75E-05	1.95E-05	1.74E-05	1.72E-05	1.70E-05	1.68E-05	2.32E-05	2.29E-05	2.25E-05	2.21E-05	2.17E-05	2.12E-05
21.0	1.74E-05	1.99E-05	1.73E-05	1.72E-05	1.70E-05	1.68E-05	2.35E-05	2.33E-05	2.28E-05	2.24E-05	2.20E-05	2.16E-05
21.5	1.74E-05	2.02E-05	1.73E-05	1.71E-05	1.70E-05	1.68E-05	2.39E-05	2.36E-05	2.32E-05	2.28E-05	2.24E-05	2.20E-05
22.0	1.74E-05	2.06E-05	1.73E-05	1.71E-05	1.69E-05	1.68E-05	2.43E-05	2.40E-05	2.36E-05	2.32E-05	2.28E-05	2.24E-05
22.5	1.74E-05	2.10E-05	1.73E-05	1.71E-05	1.69E-05	1.67E-05	2.46E-05	2.44E-05	2.39E-05	2.35E-05	2.31E-05	2.27E-05
23.0	1.74E-05	2.13E-05	1.73E-05	1.71E-05	1.69E-05	1.67E-05	2.50E-05	2.47E-05	2.43E-05	2.39E-05	2.35E-05	2.31E-05
23.5	1.73E-05	2.17E-05	1.73E-05	1.71E-05	1.69E-05	1.67E-05	2.53E-05	2.51E-05	2.46E-05	2.43E-05	2.39E-05	2.35E-05
24.0	1.73E-05	2.21E-05	1.73E-05	1.71E-05	1.69E-05	1.67E-05	2.57E-05	2.54E-05	2.50E-05	2.46E-05	2.42E-05	2.38E-05
24.5	1.73E-05	2.24E-05	1.72E-05	1.71E-05	1.69E-05	1.67E-05	2.60E-05	2.57E-05	2.53E-05	2.49E-05	2.46E-05	2.42E-05
25.0	1.73E-05	2.28E-05	1.72E-05	1.71E-05	1.69E-05	1.67E-05	2.63E-05	2.61E-05	2.57E-05	2.53E-05	2.49E-05	2.45E-05

	6.6WR21A1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1	7.6 WR55A1	7.5 WR55A1	7.4 WR55A1	7.3 WR55A1
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
25.5	1.73E-05	2.31E-05	1.72E-05	1.70E-05	1.69E-05	1.67E-05	2.66E-05	2.64E-05	2.60E-05	2.56E-05	2.52E-05	2.48E-05
26.0	1.72E-05	2.35E-05	1.72E-05	1.70E-05	1.68E-05	1.67E-05	2.69E-05	2.67E-05	2.63E-05	2.59E-05	2.55E-05	2.52E-05
26.5	1.72E-05	2.38E-05	1.72E-05	1.70E-05	1.68E-05	1.66E-05	2.72E-05	2.70E-05	2.66E-05	2.62E-05	2.58E-05	2.55E-05
27.0	1.72E-05	2.42E-05	1.72E-05	1.70E-05	1.68E-05	1.66E-05	2.75E-05	2.72E-05	2.69E-05	2.65E-05	2.61E-05	2.58E-05
27.5	1.72E-05	2.45E-05	1.72E-05	1.70E-05	1.68E-05	1.66E-05	2.77E-05	2.75E-05	2.71E-05	2.67E-05	2.64E-05	2.60E-05
28.0	1.72E-05	2.49E-05	1.72E-05	1.70E-05	1.68E-05	1.66E-05	2.79E-05	2.77E-05	2.73E-05	2.70E-05	2.66E-05	2.63E-05
28.5	1.71E-05	2.52E-05	1.71E-05	1.70E-05	1.68E-05	1.66E-05	2.81E-05	2.79E-05	2.75E-05	2.72E-05	2.68E-05	2.65E-05
29.0	1.71E-05	2.56E-05	1.71E-05	1.69E-05	1.68E-05	1.66E-05	2.83E-05	2.80E-05	2.77E-05	2.73E-05	2.70E-05	2.67E-05
29.5	1.71E-05	2.59E-05	1.71E-05	1.69E-05	1.67E-05	1.65E-05	2.85E-05	2.82E-05	2.78E-05	2.75E-05	2.72E-05	2.68E-05
30.0	1.71E-05	2.62E-05	1.71E-05	1.69E-05	1.67E-05	1.65E-05	2.86E-05	2.84E-05	2.80E-05	2.77E-05	2.74E-05	2.70E-05
30.5	1.71E-05	2.66E-05	1.71E-05	1.69E-05	1.67E-05	1.65E-05			2.81E-05	2.78E-05	2.75E-05	2.72E-05
31.0	1.70E-05	2.69E-05	1.70E-05	1.68E-05	1.67E-05	1.65E-05						
31.5	1.70E-05	2.72E-05	1.70E-05	1.68E-05	1.66E-05	1.64E-05						
32.0	1.70E-05	2.75E-05	1.70E-05	1.68E-05	1.66E-05	1.64E-05						
32.5	1.71E-05	2.77E-05	1.69E-05	1.68E-05	1.66E-05	1.64E-05						
33.0	1.72E-05	2.80E-05	1.69E-05	1.67E-05	1.65E-05	1.63E-05						
33.5	1.74E-05		1.69E-05	1.67E-05	1.65E-05	1.63E-05						
34.0	1.75E-05		1.68E-05	1.67E-05	1.65E-05	1.63E-05						
34.5	1.77E-05		1.69E-05	1.66E-05	1.64E-05	1.62E-05						
35.0	1.78E-05		1.69E-05	1.66E-05	1.64E-05	1.62E-05						
35.5	1.80E-05		1.71E-05	1.65E-05	1.64E-05	1.62E-05						
36.0	1.81E-05		1.72E-05	1.65E-05	1.63E-05	1.61E-05						
36.5	1.82E-05		1.74E-05	1.65E-05	1.63E-05	1.61E-05						
37.0	1.84E-05		1.75E-05	1.67E-05	1.62E-05	1.60E-05						
37.5	1.85E-05		1.77E-05	1.69E-05	1.62E-05	1.60E-05						
38.0	1.86E-05		1.78E-05	1.70E-05	1.62E-05	1.60E-05						
38.5	1.88E-05		1.80E-05	1.72E-05	1.63E-05	1.59E-05						
39.0	1.90E-05		1.81E-05	1.73E-05	1.65E-05	1.59E-05						
39.5	1.92E-05		1.83E-05	1.75E-05	1.66E-05	1.58E-05						
40.0	1.95E-05		1.84E-05	1.76E-05	1.68E-05	1.60E-05						
40.5	1.97E-05		1.86E-05	1.78E-05	1.69E-05	1.61E-05						
41.0	1.99E-05		1.87E-05	1.79E-05	1.71E-05	1.63E-05						
41.5	2.02E-05		1.88E-05	1.80E-05	1.72E-05	1.64E-05						
42.0	2.04E-05		1.90E-05	1.82E-05	1.74E-05	1.66E-05						
42.5	2.06E-05		1.92E-05	1.84E-05	1.75E-05	1.67E-05						
43.0	2.08E-05		1.94E-05	1.86E-05	1.77E-05	1.69E-05						
43.5	2.10E-05		1.96E-05	1.88E-05	1.79E-05	1.71E-05						
44.0	2.13E-05		1.98E-05	1.89E-05	1.81E-05	1.73E-05						
44.5	2.15E-05		2.00E-05	1.91E-05	1.83E-05	1.74E-05						
45.0	2.17E-05		2.01E-05	1.93E-05	1.85E-05	1.76E-05						
45.5	2.19E-05		2.03E-05	1.95E-05	1.87E-05	1.78E-05						
46.0	2.21E-05		2.05E-05	1.97E-05	1.89E-05	1.80E-05						
46.5	2.23E-05		2.07E-05	1.99E-05	1.91E-05	1.82E-05						
47.0	2.25E-05		2.09E-05	2.01E-05	1.92E-05	1.84E-05						
47.5	2.27E-05		2.11E-05	2.02E-05	1.94E-05	1.86E-05						
48.0	2.29E-05		2.12E-05	2.04E-05	1.96E-05	1.88E-05						
48.5	2.31E-05		2.14E-05	2.06E-05	1.98E-05	1.90E-05						
49.0	2.33E-05		2.16E-05	2.08E-05	2.00E-05	1.92E-05						
49.5	2.34E-05		2.18E-05	2.10E-05	2.02E-05	1.93E-05						
50.0	2.36E-05		2.20E-05	2.12E-05	2.04E-05	1.95E-05						
50.5	2.38E-05		2.22E-05	2.14E-05	2.05E-05	1.97E-05						

	6.6WR21A1	7.9 WR23A4	7.7 WR23A4	7.5 WR23A4	7.3 WR23A4	7.1 WR23A4	7.8 WR55A1	7.71 WR55A1	7.6 WR55A1	7.5 WR55A1	7.4 WR55A1	7.3 WR55A1
ΔH (kJ)	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*	*beta*
51.0	2.40E-05		2.23E-05	2.15E-05	2.07E-05	1.99E-05						
51.5	2.41E-05		2.25E-05	2.17E-05	2.09E-05	2.01E-05						
52.0	2.43E-05		2.27E-05	2.19E-05	2.11E-05	2.03E-05						
52.5	2.45E-05		2.29E-05	2.21E-05	2.13E-05	2.05E-05						
53.0	2.46E-05		2.31E-05	2.23E-05	2.15E-05	2.07E-05						
53.5	2.48E-05		2.32E-05	2.24E-05	2.16E-05	2.08E-05						
54.0	2.49E-05		2.34E-05	2.26E-05	2.18E-05	2.10E-05						
54.5	2.52E-05		2.36E-05	2.28E-05	2.20E-05	2.12E-05						
55.0	2.54E-05		2.38E-05	2.30E-05	2.22E-05	2.14E-05						
55.5	2.56E-05		2.39E-05	2.32E-05	2.24E-05	2.16E-05						
56.0	2.58E-05		2.41E-05	2.33E-05	2.26E-05	2.18E-05						
56.5	2.60E-05		2.43E-05	2.35E-05	2.27E-05	2.19E-05						
57.0	2.62E-05		2.45E-05	2.37E-05	2.29E-05	2.21E-05						
57.5	2.64E-05		2.46E-05	2.39E-05	2.31E-05	2.23E-05						
58.0	2.66E-05		2.48E-05	2.40E-05	2.33E-05	2.25E-05						
58.5	2.68E-05		2.50E-05	2.42E-05	2.34E-05	2.27E-05						
59.0	2.70E-05		2.52E-05	2.44E-05	2.36E-05	2.28E-05						
59.5	2.72E-05		2.53E-05	2.46E-05	2.38E-05	2.30E-05						
60.0	2.74E-05		2.55E-05	2.47E-05	2.40E-05	2.32E-05						
60.5	2.76E-05		2.57E-05	2.49E-05	2.41E-05	2.34E-05						
61.0	2.78E-05			2.51E-05	2.43E-05	2.35E-05						
61.5	2.79E-05			2.52E-05	2.45E-05	2.37E-05						
62.0	2.81E-05			2.54E-05	2.46E-05	2.39E-05						
62.5	2.82E-05			2.56E-05	2.48E-05	2.40E-05						
63.0	2.84E-05			2.57E-05	2.50E-05	2.42E-05						
63.5	2.86E-05			2.59E-05	2.51E-05	2.44E-05						
64.0	2.87E-05			2.60E-05	2.53E-05	2.45E-05						
64.5	2.89E-05			2.62E-05	2.54E-05	2.47E-05						
65.0				2.63E-05	2.56E-05	2.48E-05						
65.5				2.64E-05	2.57E-05	2.50E-05						
66.0				2.66E-05	2.59E-05	2.51E-05						
66.5				2.67E-05	2.60E-05	2.53E-05						
67.0				2.68E-05	2.61E-05	2.54E-05						
67.5				2.70E-05	2.63E-05	2.56E-05						
68.0				2.71E-05	2.64E-05	2.57E-05						
68.5				2.72E-05	2.65E-05	2.58E-05						
69.0				2.72E-05	2.66E-05	2.59E-05						
69.5					2.67E-05	2.60E-05						

ΔH (kJ)	7.1 WR12A1 porosity	7.0 WR12A1 porosity	6.9 WR21A1 porosity	6.8 WR 21A1 porosity	6.6WR21A 1 porosity	7.9 WR23A4 porosity	7.7 WR23A4 porosity	7.5 WR23A4 porosity	7.3 WR23A4 porosity	7.1 WR23A4 porosity	7.71 WR55A1 porosity
0.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.7E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.1E-04
1.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.8E-04
2.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.6E-04
2.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.6E-04
3.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.6E-04
3.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.7E-04
4.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-03
4.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.2E-03
5.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-03
5.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E-03
6.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.7E-03
6.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-03
7.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.0E-03
7.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-03
8.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.7E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.4E-03
8.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.6E-03
9.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.0E-03
9.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.4E-03
10.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.2E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.7E-03
10.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.0E-03
11.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-02
11.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-02
12.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.3E-02
12.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-02
13.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.3E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E-02
13.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-02
14.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.0E-02
14.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-02
15.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.3E-02
15.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.0E-02
16.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.6E-02
16.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.3E-02
17.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.6E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.0E-02
17.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.6E-02
18.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.3E-02
18.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.9E-02
19.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.6E-02
19.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.3E-02
20.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.7E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.9E-02
20.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.11
21.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.9E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.11
21.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.6E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.12
22.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.12
22.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.9E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.13
23.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.5E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.14
23.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.14
24.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.8E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.15
24.5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.5E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.16
25.0	1.6E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.16

ΔH (kJ)	7.1 WR12A1 porosity	7.0 WR12A1 porosity	6.9 WR21A1 porosity	6.8 WR 21A1 porosity	6.6WR21A 1 porosity	7.9 WR23A4 porosity	7.7 WR23A4 porosity	7.5 WR23A4 porosity	7.3 WR23A4 porosity	7.1 WR23A4 porosity	7.71 WR55A1 porosity
25.5	3.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17
26.0	4.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17
26.5	5.7E-03	1.4E-03	0.0E+00	0.0E+00	0.0E+00	0.12	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.18
27.0	7.1E-03	2.7E-03	0.0E+00	0.0E+00	0.0E+00	0.13	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.18
27.5	8.5E-03	4.1E-03	0.0E+00	0.0E+00	0.0E+00	0.13	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.19
28.0	9.9E-03	5.5E-03	1.1E-03	0.0E+00	0.0E+00	0.14	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.19
28.5	1.1E-02	6.9E-03	2.5E-03	0.0E+00	0.0E+00	0.15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.20
29.0	1.3E-02	8.3E-03	3.9E-03	0.0E+00	0.0E+00	0.15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.20
29.5	1.4E-02	9.7E-03	5.3E-03	9.6E-04	0.0E+00	0.16	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.21
30.0	1.5E-02	1.1E-02	6.7E-03	2.4E-03	0.0E+00	0.16	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.21
30.5	1.7E-02	1.2E-02	8.1E-03	3.8E-03	0.0E+00	0.17	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
31.0	1.8E-02	1.4E-02	9.5E-03	5.2E-03	0.0E+00	0.18	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
31.5	1.9E-02	1.5E-02	1.1E-02	6.6E-03	0.0E+00	0.18	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
32.0	2.1E-02	1.7E-02	1.2E-02	8.0E-03	0.0E+00	0.19	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
32.5	2.2E-02	1.8E-02	1.4E-02	9.4E-03	9.9E-04	0.19	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
33.0	2.4E-02	1.9E-02	1.5E-02	1.1E-02	2.4E-03	0.20	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
33.5	2.5E-02	2.1E-02	1.6E-02	1.2E-02	3.8E-03		0.0E+00	0.0E+00	0.0E+00	0.0E+00	
34.0	2.6E-02	2.2E-02	1.8E-02	1.4E-02	5.3E-03		0.0E+00	0.0E+00	0.0E+00	0.0E+00	
34.5	2.8E-02	2.3E-02	1.9E-02	1.5E-02	6.7E-03		1.2E-03	0.0E+00	0.0E+00	0.0E+00	
35.0	2.9E-02	2.5E-02	2.1E-02	1.6E-02	8.1E-03		2.0E-03	0.0E+00	0.0E+00	0.0E+00	
35.5	3.0E-02	2.6E-02	2.2E-02	1.8E-02	9.5E-03		4.4E-03	0.0E+00	0.0E+00	0.0E+00	
36.0	3.2E-02	2.7E-02	2.3E-02	1.9E-02	1.1E-02		7.2E-03	0.0E+00	0.0E+00	0.0E+00	
36.5	3.3E-02	2.9E-02	2.5E-02	2.0E-02	1.2E-02		1.0E-02	0.0E+00	0.0E+00	0.0E+00	
37.0	3.4E-02	3.0E-02	2.6E-02	2.2E-02	1.4E-02		1.3E-02	3.8E-03	0.0E+00	0.0E+00	
37.5	3.6E-02	3.1E-02	2.7E-02	2.3E-02	1.5E-02		1.5E-02	6.5E-03	0.0E+00	0.0E+00	
38.0	3.8E-02	3.3E-02	2.9E-02	2.5E-02	1.7E-02		1.8E-02	9.2E-03	0.0E+00	0.0E+00	
38.5	4.0E-02	3.6E-02	3.1E-02	2.6E-02	1.8E-02		2.1E-02	1.2E-02	3.0E-03	0.0E+00	
39.0	4.3E-02	3.8E-02	3.3E-02	2.9E-02	2.0E-02		2.3E-02	1.5E-02	5.7E-03	0.0E+00	
39.5	4.5E-02	4.0E-02	3.6E-02	3.1E-02	2.3E-02		2.6E-02	1.7E-02	8.5E-03	0.0E+00	
40.0	4.7E-02	4.3E-02	3.8E-02	3.4E-02	2.5E-02		2.9E-02	2.0E-02	1.1E-02	2.3E-03	
40.5	5.0E-02	4.5E-02	4.1E-02	3.6E-02	2.7E-02		3.1E-02	2.3E-02	1.4E-02	5.0E-03	
41.0	5.2E-02	4.8E-02	4.3E-02	3.9E-02	3.0E-02		3.4E-02	2.5E-02	1.6E-02	7.6E-03	
41.5	5.4E-02	5.0E-02	4.6E-02	4.1E-02	3.2E-02		3.6E-02	2.8E-02	1.9E-02	1.0E-02	
42.0	5.7E-02	5.2E-02	4.8E-02	4.3E-02	3.5E-02		4.0E-02	3.0E-02	2.2E-02	1.3E-02	
42.5	5.9E-02	5.5E-02	5.0E-02	4.6E-02	3.7E-02		4.3E-02	3.4E-02	2.4E-02	1.5E-02	
43.0	6.1E-02	5.7E-02	5.3E-02	4.8E-02	4.0E-02		4.6E-02	3.7E-02	2.8E-02	1.8E-02	
43.5	6.4E-02	5.9E-02	5.5E-02	5.0E-02	4.2E-02		5.0E-02	4.1E-02	3.1E-02	2.2E-02	
44.0	6.6E-02	6.2E-02	5.7E-02	5.3E-02	4.4E-02		5.3E-02	4.4E-02	3.5E-02	2.5E-02	
44.5	6.8E-02	6.4E-02	5.9E-02	5.5E-02	4.7E-02		5.6E-02	4.7E-02	3.8E-02	2.9E-02	
45.0	7.0E-02	6.6E-02	6.2E-02	5.7E-02	4.9E-02		6.0E-02	5.1E-02	4.1E-02	3.2E-02	
45.5	7.3E-02	6.8E-02	6.4E-02	6.0E-02	5.1E-02		6.3E-02	5.4E-02	4.5E-02	3.6E-02	
46.0	7.5E-02	7.0E-02	6.6E-02	6.2E-02	5.4E-02		6.6E-02	5.7E-02	4.8E-02	3.9E-02	
46.5	7.7E-02	7.3E-02	6.8E-02	6.4E-02	5.6E-02		7.0E-02	6.1E-02	5.2E-02	4.2E-02	
47.0	7.9E-02	7.5E-02	7.1E-02	6.6E-02	5.8E-02		7.3E-02	6.4E-02	5.5E-02	4.6E-02	
47.5	8.1E-02	7.7E-02	7.3E-02	6.8E-02	6.0E-02		7.6E-02	6.7E-02	5.8E-02	4.9E-02	
48.0	8.3E-02	7.9E-02	7.5E-02	7.1E-02	6.3E-02		8.0E-02	7.1E-02	6.2E-02	5.3E-02	
48.5	8.5E-02	8.1E-02	7.7E-02	7.3E-02	6.5E-02		8.3E-02	7.4E-02	6.5E-02	5.6E-02	
49.0	8.7E-02	8.3E-02	7.9E-02	7.5E-02	6.7E-02		8.6E-02	7.7E-02	6.8E-02	5.9E-02	
49.5	8.9E-02	8.5E-02	8.1E-02	7.7E-02	6.9E-02		8.9E-02	8.1E-02	7.2E-02	6.3E-02	
50.0	9.1E-02	8.7E-02	8.3E-02	7.9E-02	7.1E-02		9.3E-02	8.4E-02	7.5E-02	6.6E-02	
50.5	9.3E-02	8.9E-02	8.5E-02	8.1E-02	7.3E-02		9.6E-02	8.7E-02	7.8E-02	7.0E-02	

ΔH (kJ)	7.1 WR12A1 porosity	7.0 WR12A1 porosity	6.9 WR21A1 porosity	6.8 WR 21A1 porosity	6.6WR21A 1 porosity	7.9 WR23A4 porosity	7.7 WR23A4 porosity	7.5 WR23A4 porosity	7.3 WR23A4 porosity	7.1 WR23A4 porosity	7.71 WR55A1 porosity
51.0	9.5E-02	9.1E-02	8.7E-02	8.3E-02	7.5E-02		9.9E-02	9.1E-02	8.2E-02	7.3E-02	
51.5	9.7E-02	9.3E-02	8.9E-02	8.5E-02	7.7E-02		0.10	9.4E-02	8.5E-02	7.6E-02	
52.0	9.9E-02	9.5E-02	9.1E-02	8.7E-02	7.9E-02		0.11	9.7E-02	8.8E-02	8.0E-02	
52.5	0.10	9.7E-02	9.3E-02	8.9E-02	8.1E-02		0.11	0.10	9.2E-02	8.3E-02	
53.0	0.10	9.9E-02	9.5E-02	9.1E-02	8.3E-02		0.11	0.10	9.5E-02	8.6E-02	
53.5	0.11	0.10	9.7E-02	9.3E-02	8.5E-02		0.12	0.11	9.8E-02	9.0E-02	
54.0	0.11	0.10	1.0E-01	9.5E-02	8.7E-02		0.12	0.11	0.10	9.3E-02	
54.5	0.11	0.11	0.10	9.8E-02	9.0E-02		0.12	0.11	0.10	9.6E-02	
55.0	0.11	0.11	0.10	0.10	9.3E-02		0.13	0.12	0.11	9.9E-02	
55.5	0.12	0.11	0.11	0.10	9.5E-02		0.13	0.12	0.11	0.10	
56.0	0.12	0.11	0.11	0.11	9.8E-02		0.13	0.12	0.11	0.11	
56.5	0.12	0.12	0.11	0.11	0.10		0.13	0.13	0.12	0.11	
57.0	0.12	0.12	0.11	0.11	0.10		0.14	0.13	0.12	0.11	
57.5	0.13	0.12	0.12	0.11	0.11		0.14	0.13	0.12	0.12	
58.0	0.13	0.12	0.12	0.12	0.11		0.14	0.14	0.13	0.12	
58.5	0.13	0.13	0.12	0.12	0.11		0.15	0.14	0.13	0.12	
59.0	0.13	0.13	0.12	0.12	0.11		0.15	0.14	0.13	0.13	
59.5	0.13	0.13	0.13	0.12	0.11		0.15	0.15	0.14	0.13	
60.0	0.14	0.13	0.13	0.12	0.12		0.16	0.15	0.14	0.13	
60.5	0.14	0.13	0.13	0.13	0.12		0.16	0.15	0.14	0.13	
61.0	0.14	0.14	0.13	0.13	0.12			0.15	0.15	0.14	
61.5	0.14	0.14	0.13	0.13	0.12			0.16	0.15	0.14	
62.0	0.14	0.14	0.14	0.13	0.13			0.16	0.15	0.14	
62.5	0.15	0.14	0.14	0.14	0.13			0.16	0.16	0.15	
63.0	0.15	0.14	0.14	0.14	0.13			0.17	0.16	0.15	
63.5	0.15	0.15	0.14	0.14	0.13			0.17	0.16	0.15	
64.0	0.15	0.15	0.15	0.14	0.13			0.17	0.16	0.16	
64.5	0.15			0.14	0.14			0.18	0.17	0.16	
65.0	0.16							0.18	0.17	0.16	
65.5	0.16							0.18	0.17	0.17	
66.0	0.16							0.18	0.18	0.17	
66.5	0.16							0.19	0.18	0.17	
67.0	0.16							0.19	0.18	0.17	
67.5	0.17							0.19	0.18	0.18	
68.0	0.17							0.19	0.19	0.18	
68.5	0.17							0.20	0.19	0.18	
69.0	0.17							0.20	0.19	0.18	
69.5	0.17								0.19	0.19	