

Research paper on the importance of water thermodynamic properties

[Environment](#), [Water](#)



This paper entails that water has an extraordinarily large precise heat and large heats of fusion and vaporization. This is the reason as to why the weather and ecosystem depend upon water in all three states, i. e. gas, liquid and solid form. In addition, it shows the reason as to how the world would be like if water thermodynamic properties were like other materials. This will enable us to be aware of the significance of water thermodynamic properties in the world as a whole. It is an approach that will enable us be aware of how the world would be like and how they relate with the properties of thermodynamics in order to undertake our daily activities effectively (Ott & Boerio-Goates, 2011, 23).

First and foremost, it ought to be noted that thermodynamics applies to a wide a array of topics in science and engineering. This is the reason as to why it is a subject matter of the relation of heat to forces acting between neighboring parts of bodies, and the relation of heat to electric organization. Basing on this aspect, it is clear that use of other materials would not be suitable as sense of hot or cold an object is determined by how much heat it contained. Other materials would not be essential as thermodynamics needs properties which are like variables and can be used for substance in that their values are all related by an equation. If water thermodynamics were like other materials then the approach of thermometers would not be genuine and precise (Kaufman, 2012, 38).

Absence of other materials other than extensive and intensive properties in thermodynamics would lead to absence of volume, temperature, density and pressure. This is so as extensive properties are imperative basing on the fact that they depend on the size of the system whereas intensive tend to apply

at a point. In addition, issues related to magnitude which is either a characteristic of an entire system and does not vary swiftly over microscopic distances may not be obtainable. This is all based on lack of customary materials for thermodynamics, and hence issues will not run as usual. Essentially, this shows that if water thermodynamic properties were like other materials, they would not have extensive and intensive properties. As a result of absence of these major properties, the world would not be able to estimate issues related to thermodynamic in the right approach (Alberty, 2009, 67).

This is so as the two major properties are the major key guides that lend a hand to physicians to undertake their tasks effectively. This also entails that if cells are connected in sequences, the issue of charges becoming intensive and voltages extensive will not take place. This is the reason as to why the world would be different as there is absence of thermodynamic properties of intensive and extensive properties. Therefore, major steps have been undertaken in order for the world to have thermodynamic properties that are generating a positive impact to the society. This is the reason as to why; all steps have to be laid down in order to have all the necessary properties which will have a classification that relates to the enslavement of the properties upon the size of the object in question (Jiang & Wen, 2008, 45).

Importance of water thermodynamic properties

Property fluids are of key significance for chemical industry as the liquefied chattel models are used in process blueprint and optimization. This is so as they are usually equations of state, and this is the motive as to why the properties of thermodynamics are looked at as being essential. There is also

the macroscopic thermodynamic that deals with the properties of bulk matter. Furthermore, its other significance is in the issue of envisaging pipeline procedures perfectly. Enthalpy property analyses the sum of the internal energy and the product of pressure and volume present. In addition, properties of thermodynamics are imperative as they assist chemical engineers to sufficiently foresee their presence in liquid mixtures. This is usually possible as the presence of extensive and intensive properties enable them to look at things in a more modernized and strategized perspective. Thus, properties being related to thermodynamics are essential as they enable the world relate with their daily activities in a manner that is significance to the world as a whole (Jacobsen, Penoncello & Lemmon, 2010, 45).

Conclusion

This paper illustrates in detail that water has an extremely large unmistakable heat and large heats of synthesis and vaporization. It's the rationale as to why the weather and ecological unit depend upon water in all three states. It shows the reason as to how the world would be like if water thermodynamic properties were like other materials. This will enable us to be aware of the magnitude of water thermodynamic properties in the world as a whole. Furthermore, major steps have been undertaken in order for the world to have thermodynamic properties that are generating a positive impact to the society. Additionally, properties of thermodynamics are imperative as they assist chemical engineers to adequately predict their presence in liquid mixtures (Alberty, 2009, 87)

Work Cited

Jacobsen, R, Penoncello, S & Lemmon, E, Thermodynamic Properties of Cryogenic Fluids, Springer, 2010

Ott, J & Boerio-Goates, J, Chemical Thermodynamics: Principles and Applications: Principles and Applications, Academic Press, 2011.

Kaufman, M, Principles of Thermodynamics, CRC Press, 2012.