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Journal Article Critique s Journal Article Critique Water is a crucial substance in this planet and it occurs in very huge amounts. However, this water has various distinct properties. The article, Freezing of Water by Fletcher flows logically and succinctly to explain its major talking points about the freezing of water. The author clearly states an explicit thesis and has a specific point of view; the freezing of water. The study examines the structure of the water molecule and the manner in which the molecules combine to form ice and water. The article evaluates the structural changes that occur when water freezes in addition to the theories of heterogeneous and homogenous nucleation. At ordinary atmospheric pressure, water freezes to ice at 0 °C. When water freezes it expands.

The authors' tone is objective since they use facts and reasonable explanations. For example, ice is less dense than liquid water explaining why ice usually floats on water. The other fact is that water is held by hydrogen bonds. Besides, ice has hexagonal structure and Fletcher cites Bridgman's study to prove the fact.

Equally important, Fletcher (1966) concludes that water is best considered as comprising of a mixture of molecules bonded into ' flickering clusters' as well as a proportion of non-bonded molecules. This implies that liquid water has various hydrogen bonded clusters.

About the articles weaknesses, Fletcher (1966) reported that a comprehensive understanding of the process of freezing has not yet been attained, thus creating room for further research on the subject. The other weakness is that the article does not adequately design a comprehensive

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model of the structure of water together with the hydrogen structure that forms it. Lastly, the article needs to have elaborated on the applications of freezing water. However, in general, the article is concise and well organized.

The article presents very useful information that I can apply in my daily life. I would use the scientific information freezing water expands to inform people on why water pipes burst during winter. I would also inform them of the control methods to apply to prevent bursting of the pipes, for instance, fitting vulnerable pipes with insulation to prevent water's temperature from dropping to 00C, cracks and holes in walls to be sealed to prevent entry of cold air, and letting a faucet drip during extreme cold weather so as to maintain the water's temperature. Besides that, understanding the concept of freezing of water will enable me advice people not to put glass-bottled drinks in a freezer since they would burst and may be cause injuries.

References

Fletcher, N. H. (1966). " The freezing of water," Journal of Sci. Prog. Oxford , 54 (1), 227-241.