

A. Bakhtiari, T.M. Berberashvili and P.J. Kervalishvili

Ultrasonic heating

Abstract. Among the effective and precise energy generation technologies, an ultrasonic wave is one of the most interesting and applicable proximate sources. In order to understand the nature of ultrasound, it is necessary have a basic understanding of sound waves, how they are generated and how they travel through a conducting medium. Ultrasonic waves affect substances both in quantity and quality, and can be used in different applications. One of the most interesting scientific aspects is how the fluid thermodynamic properties are changed by ultrasonic cavitation. Water, as the most ubiquitous and accessible fluid on Earth, is the material which has the greatest potential for practical utilization as the delivery medium.

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