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Application to the Morse-Potential Function to the Ultrasonic Attenuation of B.C.C. Metals

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Abstract

The Morse-potential parameters are applied to calculate the second order elastic constants of V, Nb and Ta at different temperatures. Finally we have evaluated the temperature dependence of ultrasonic absorption in the metals using the second order elastic constants. Some important characteristic features are discussed for the metals establishing the validity of our theoretical approach.