

# MAGNETIC FIELD INFLUENCE ON CRITICAL ATTENUATION AND VELOCITY VARIATION IN FERROMAGNETS

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The ultrasound velocity and attenuation are investigated under an application of magnetic field. In the magnetic field six different characteristic regimes are distinguished instead of traditional two (hydrodynamic and critical) found for the case of zero magnetic field. The mean-field Landau-Khalatnikov theory as well as the scaling predictions are given for each regime. Various critical exponents are identified for these regions and compared with the ultrasonic data for MnP. The shift of the ultrasonic attenuation peak under the influence of magnetic field towards higher temperatures, found in various ferromagnets, is discussed

9.7 cm

13.4 cm

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3. Magnetic Structure and Dynamics

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