

MAGNETIC FIELD DEPENDENCE OF CRITICAL SOUND ATTENUATION IN FERROMAGNET

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The temperature- and magnetic field-dependence of the sound attenuation exponent is investigated close to the critical temperature of the ferromagnetic transition using the Nelson's technique [1]. The scaling functions are given within the renormalization group formalism at one-loop order. The physical origin of peaks observed in the sound attenuation above the critical temperature is identified. We also discuss the comparison of our results with the mean-field Landau-Khalatnikov theory and experimental data.

9.7 cm

[1] A. Pawlak and R. Erdem, Phys. Rev. B **83**, 094415 (2011)

13.4 cm

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