Ultrasonic Mean Free Path in a Granular Aluminum Film(Physics)

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explained on the basis of the present theory.

Ultrasonic Identification of a New Spin-Ordering Phase Transition in Holmium

M. TACHIKI, M.C. LEE, R.A. TREDER and M. LEVY

Solid State Commun., **15** (1974), 1071.

A new tilted spiral phase has been identified in holmium by associating it with an anomalous peak in the shear wave attenuation at 24°K. When a magnetic field is applied in the basal plane the peak moves up in temperature; when it is applied parallel to the *c*-axis the peak moves down. We propose a model which predicts the observed experimental results.

Ultrasonic Mean Free Path in a Granular Aluminum Film

M. TACHIKI, H. SALVO, Jr., D.A. ROBINSON and M. LEVY

Solid State Commun., **17** (1975), 653.

The ultrasonic mean free path has been measured and compared to the electrical mean free path of a thin granular aluminum film. They have been found to differ by an order of magnitude which is believed to indicate that mean free path determined ultrasonically is for the Al metal while the one determined electrically is for the Al-Al_2O_3 matrix structure.

Criterion for the Appearance of Critical Attenuation of Shear Waves in Magnetic Materials

M. TACHIKI, S. MAEKAWA, R. TREDER and M. LEVY

Phys. Rev. Lett., **34** (1975), 1579.

The magnetic anisotropy energy makes spin fluctuations extremely anisotropic near the Curie and Néel temperatures. Because of this anisotropy of the fluctuations and the symmetry of the shear-wave phonon-spin interaction, only shear waves with both propagation and polarization vectors in the easy directions of magnetization have critical attenuation at the phase transition temperatures and other shear waves do not have it. Experimental results on the heavy rare-earth metals are in agreement with these theoretical predictions.

Internal Friction in Deformed Indium Antimonide Crystals

K. OHORI and K. SUMINO

Phys. Status Solidi a, **21** (1974), 217.

The internal friction in deformed InSb single crystals is investigated in the temperature range from 4.2 to 503 K. Three relaxation peaks, denoted by P_1, P_2, and P_3, with activation energies of (0.05±0.01), (0.08±0.01), and (0.36±0.02) eV,