

MODELING OF MAGNETOSTATIC SURFACE OSCILLATIONS IN ELLIPTIC NANOTUBES

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S u m m a r y

The theory of magnetostatic surface oscillations (MSSOs) in a ferromagnetic tube with elliptic cross-section is presented. Resonance frequencies and magnetic field lines are calculated. It is found that the spectrum of elliptic oscillations of a tube consists of two families (low and high frequencies), and the energies of oscillations of those families tend to localize on the outer and inner surfaces of the tube. The theoretical results are compared with experimental data on the spectra of three-layer nanostructures, and a satisfactory agreement is achieved.