

Magnetic Properties of Spin-1/2 Ising Superlattice

LIU Wei-Jie, XIN Zi-Hua, and HU Hong-Liang

College of Science, Shanghai University, Shanghai 200444, China
(Received: 2006-6-5; Revised:)

Abstract: Using the effective-field theory we studied the magnetic properties of a spin-1/2 Ising superlattice, which consist of three different ferromagnet materials. The magnetic behavior of this superlattice is examined. The critical temperature and the compensation temperature of the system are studied as a function of the exchange interactions between the nearest-neighboring spins across the interface and in the intraface. Temperature dependence of magnetizations is also given.

PACS: 75.10.-b

Key words: Ising superlattice, effective field theory, phase transition, compensation point

[\[Full text: PDF\]](#)

Close