

عنوان مقاله:

Magnetic properties and free energy of a mixed spin (1/2) and spin (3/2) ferrimagnet

محل انتشار:

سیزدهمین همایش علمی دانشجویی مهندسی مواد و متالورژی ایران (سال: 1395)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Hadey K. Mohamad - Asst. Prof. , Head of Physics Dept

Abdulameer K. Farhood - Asst. Prof., Editor-in-chief, Al-Muthanna Journal for Pure Sciences

خلاصه مقاله:

The magnetic behaviours of a mixed Blume-Capel Ising ferrimagnetic system on a square lattice having spins $2, 1, A_i$ and spins $2, 3, 2, 1, B_j$, in the absence and presence of an external magnetic field, are investigated, respectively. Our results which are examined have interesting features depending on negative values of anisotropy field. The longitudinal magnetic fields dependence of the spin compensation temperature is the essential substance of research. It is worth to note that in this model, the contribution of magnetic free energy to the thermodynamic stability of the mixed spin ferrimagnet with first nearest neighbour interaction is indicated

کلمات کلیدی:

Mixed Spin, Blume-Capel Model, Ferrimagnet, Magnetic Field, Free Energy, Compensation Temperature

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/557817>

