Anisotropic superparamagnetic behaviour in textured ferrofluid systems

U. Hartmann and H. H. Mende

A statistical theory of the magnetization of an assembly of fine, non-interacting, singledomain ferromagnetic particles which show uniaxial magnetic anisotropy is formulated under conditions of total and partial particle alignment. Results are compared to experimental data deduced from measurements of a magnetic fluid solidified under the influence of an external field.