Publikationen 1985

U. Hartmann and H. H. Mende
FERROHYDRODYNAMICAL FUNDAMENTALS OF BITTER PATTERN EVOLUTION

The theory of ferrohydrodynamics describes the specific physical properties associated with a magnetizable fluid. From this theory a constitutive equation was derived, which characterizes the stray-field-induced formation of ferrofluid Bitter patterns on the surface of a ferromagnetic specimen.

Z. Phys. B - Condensed Matter ***61****, 29 (1985)*

U. Hartmann and H. H. Mende
THE OPTICAL PHASE PORTRAIT OF FERROFLUID BITTER PATTERNS
J. Phys. (Paris), ***46****, C6-279 (1985)*

U. Hartmann and H. H. Mende
ANISOTROPIC SUPERPARAMAGNETIC BEHAVIOUR IN TEXTURED FERROFLUID SYSTEMS

A statistical theory of the magnetization of an assembly of fine, non-interacting, single-domain 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.

Phil. Mag. ***52****, 889 (1985)*

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DISCONTINUITIES IN THE MAGNETIZATION PROCESS OF IRON WHISKERS WITH LANDAU STRUCTURE
Proc. 7th Conf. Soft Magnetic Materials, Blackpool, U.K., p.87 (1985)

U. Hartmann and H. H. Mende
OBSERVATION OF BLOCH WALL FINE STRUCTURES ON IRON WHISKERS BY A HIGH-RESOLUTION INTERFERENCE CONTRAST TECHNIQUE

The use of interference contrast equipment for Bitter pattern studies on iron whiskers results in a significant improvement in the resolution power and contrast transference of the optical microscope. Details of domain wall topology and internal wall structure are revealed. A discussion of the technique and some experimental results are presented.

J. Phys. D: Appl. Phys. ***18****, 2285 (1985)*