

DEPENDENCE OF THE MAGNETIZATION  
OF AN ENSEMBLE OF SINGLE-DOMAIN  
PARTICLES ON THE MEASUREMENT  
TIME WITHIN VARIOUS EXPERIMENTAL  
AND COMPUTATIONAL METHODS

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S u m m a r y

The effect of a measurement time duration on the parameters of magnetization curves for an ensemble of identical noninteracting single-domain particles with equally oriented axes under the uniaxial anisotropy has been specified for different experiment modes, in particular for the cases of relaxation measurements and the continuous sweep of a static magnetic field. The relation between a blocking temperature and experiment characteristics has been found for these modes. A recursion method to calculate the magnetization reversal curves for such an ensemble of particles is proposed. By comparing the results of calculations of the magnetic properties by the recursion and Monte-Carlo methods, an algorithm to establish the relation between the equivalent measurement time and such parameters of the Monte-Carlo method as the number of steps and the value of aperture is suggested.