

Small-angle neutron scattering investigation of ferrofluids with anisometric nanoparticles

Maria BALASOIU - *Joint Institute of Nuclear Research, Russia - Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering, Bucharest & Magurele & West University of Timisoara, Romania*

Magnetic colloids with particles in the form of nanoplates and nanorods were studied in the present work by the SANS and SAXS methods. The idea of preparing ferrofluids with anisometric nanoparticles started from the need to obtain magneto-optical media with improved properties.

Small-angle neutron and X-ray scattering (SANS and SAXS) are powerful techniques for obtaining valuable information related to the structure and morphology of colloidal samples and on the modification of these properties with the variation of different physical and chemical factors.