DOWNLOAD

Kombinierte oberflächen- und volumensensitive spektro-mikroskopische XMCD-Untersuchungen nanopartikulärer Hybridsysteme

By Daniela Nolle

Cuvillier Verlag Jul 2012, 2012. Taschenbuch. Condition: Neu. Neuware - Magnetic materials and their applications represent one of the most important research areas in modern science. Particularly, nanostructured materials arouse great interest, as they exhibit new and interesting properties, which arise from quantum mechanical effects due to their nanoscale size. For example, by utilizing contributions to the anisotropy energy induced from a high surface to volume ratio or interactions at interfaces, one can create highly specialized nanostruc-tured sample systems. Today they are already used in medical applications, like hyperthermia, or as MRI contrast agents. Possible future applications are e.g. self organized patterned nanoparticular materials in new magnetic data storage me-dia with higher storage densities. Especially magnetic nanoparticles made of iron oxide or with an iron oxide shell have attracted great attention in lifescience due to their easy dispersion in water and their biocompatibility. In the case of self-organized superlattices formed from single nanoparticles, possible applications include miniaturized components like GMR/TMR-elements. For all these dedicated applications, the magnetic as well as the non-magnetic properties have to be understood very accurately and tailored during the fabrica-tion process. This can be achieved e.g. by varying the size and the composition of the particles...

READ ONLINE
[8.13 MB]

Reviews

Complete guide! Its such a great study. I am quite late in start reading this one, but better then never. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Dr. Hermann Marvin PhD***

Thorough information! Its this kind of very good read. It is writter in basic words and not hard to understand. You wont feel monotony at anytime of your respective time (that's what catalogues are for regarding should you question me).

-- ***Roel Bogisich Sr.***