



Contribution ID: 216

Type: Poster

Tuning the structural and magnetic properties of iron oxide nanoparticles

Wednesday, 16 March 2022 18:44 (1 minute)

Due to their biocompatibility and magnetic properties, iron oxide nanoparticles are especially interesting for applications such as targeted drug delivery and hyperthermia therapy. We studied the relationship between the composition of iron oxide particles and the exchange bias effect. The magnetic properties of the samples can be tuned by oxidation or reduction via different annealing procedures. These results provide important information for the manipulation of the exchange bias in oxide NPs.

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Presenter: SUN, Xiao

Session Classification: Postersession

Track Classification: Main conference: Surfaces, Interfaces, Thin Films, Nanoparticles