Departamento de Física de la Materia Condensada

Universidad Zaragoza

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Rocío Ranchal

Universidad Complutense de Madrid

Magnetoelastic thin films

Magnetoelasticity exploits the correlation between mechanical and magnetic properties. Magnetostrictive materials have been used in different fields ranging from SONAR to magnetic sensors. Nowadays, there is even a new field of research called straintronics that is gaining attention from the scientific community. In this talk I will discuss our recent work on magnetoelastic thin films, mainly Fe72Ga28 and Ni90Fe10. Magnetic properties can be tuned thanks to growth parameters for example when using sputtering or electrodeposition. In addition, we have also investigated the possibility of coupling these two materials systems.

Rocío Ranchal is Full Professor at Universidad Complutense de Madrid (UCM) where she is currently working on magnetostrictive thin films and new magnetic materials for energy applications. She got her PhD from UCM at 2006 with a work on magnetic transport in metallic multilayers and diluted magnetic heterostructures. From 2006 to 2008 she performed at postdoc stay at Paul-Drude-Institut (Germany). In 2007 she got the Prize for Young Researchers in the category of experimental Physics from the Spanish Royal Physics Society (RSEF). Prof. Ranchal has collaborated with national and international investigators such as Dr. M. Ciria (Spain), Profs. M. Bibes (France), A. Barthélémy (France), Prof. M. Marangolo (France), Dr. D. Haskel (USA), etc.

Con la colaboración de:

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