CRC/TRR 270

HoMMage

Hysteresis Design of Magnetic Materials for Efficient Energy Conversion

Tuesday, 15 Dec. 2020, 9:00 s.t., TU Darmstadt, Zoom

Dr. Ester M. Palmero

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Advances in the fabrication of rare earth-free permanent magnets by thermally controlled additive manufacturing: case study of gas-atomized MnAlC alloy

About the speaker:

Dr. Ester M. Palmero is a postdoctoral researcher in the Group of Permanent Magnets and Applications at IMDEA Nanociencia since 2017. Before joining IMDEA she worked in the Group of Nanomagnetism and Magnetization Processes at the ICMM-CSIC, where she was involved in the synthesis of magnetic nanowires and the study of their magnetization reversal processes. She obtained her Ph.D. in Advanced Materials and Nanotechnologies from Universidad Autónoma de Madrid in 2016, being her Ph.D. thesis awarded the Extraordinary Doctoral Award by UAM.

At IMDEA Nanociencia, Dr. Palmero is responsible of the research lines of 3D-printing of magnetic composites, and electrochemical synthesis of nanostructures for developing novel permanent magnets with no or reduced content of rare-earth elements. Her activity has contributed to the results of the project NEXMAG, coordinated by IMDEA and awarded as Success Case by the M-ERA.NET Network in 2018. She is responsible of electrodeposition and MEMS fabrication in the on-going H2020 FET-Open Project UWIPOM2 aiming to develop microrobotic mechanisms for microsurgery.