

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**A novel experiment using rotating magnetic fields to study the pumping spin states in molecular magnets** ALBERTO HERNANDEZ-MINGUEZ, FERRAN MACIA, JOAN MANEL HERNANDEZ, CARLA CARBONELL, ROGER AMIGÓ, JAVIER TEJADA, Universitat de Barcelona — We report here a new experimental technique to monitor spin population dynamics in molecular magnets. This deals with a huge rotating magnetic field initially applied along the easy magnetization direction,  $z$ -axis, that rotates with components parallel and perpendicular to the  $z$  axis. This technique allows us to probe spin relaxation on reasonably fast time scales detecting the inversion of the whole spin states. The population of spin levels depends on the frequency of the rotating magnetic field. This very new technique could help to carry out new experiments in a number of different fields, broadening substantially the scope of their use until now. A Hernández-Mínguez *et al.*, Appl. Phys. Lett. **91**, 202502 (2007)

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Date submitted: 11 Dec 2007

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