Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Multiple relaxation times in single-molecule magnets LIVIU CHIBOTARU, LE TUAN ANH HO, KU Leuven — Multiple relaxation times detected in the ac magnetic susceptibility of several single-molecule magnets have been always assigned to extrinsic factors, such as nonequivalent magnetic centers or effects of intermolecular interactions in the crystal. By solving quantum relaxation equations, we prove that the observed multiple relaxation times can be of intramolecular origin and can show up even in single-ion metal complexes [1]. For the latter a remarkably good description of the coexistent two relaxation times is demonstrated on several experimental examples. This proves the relevance of the intramolecular mechanism of multiple relaxation times in such systems, which is even easier justified in polynuclear magnetic complexes.

[1]L. T. A. Ho and L. F. Chibotaru, **Phys. Rev. B** 94, 104422 (2016)

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Date submitted: 17 Nov 2016 Electronic form version 1.4