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Title: Size effects in spin-crossover nanoparticles in framework of 2D and 3D Ising-like breathing crystal field model

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We study the behavior of thermal hysteresis loop in spin-crossover magnetic nanoparticles with stochastic external perturbation,

The dependence of system behavior on its dimensionality and size effects were examined.

The spin-crossover compounds were described in framework of Ising-like model with breathing crystal field, and were analyzed by Monte Carlo simulations based on Metropolis transition probabilities.

The action of fluctuations may enlarge the hysteresis width, but this enlargement is strongly dependent on the system size.

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