



On the role of random bond in spin-crossover compounds

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Received: 29 October 2022 / Accepted: 9 December 2022 / Published online: 26 December 2022
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Abstract

The short-range Ising-like model of spin-crossover solid compounds with Gaussian random bonds has been investigated by intensive numerical Monte Carlo simulation. Direct numerical computation are studied and analyzed. Three magnitudes of this system are examined: the fictitious magnetization, the total spin overlap, and the link overlap. In the general case, six representative results depending on the relation between the intermolecular coupling and the standard deviation are discussed. We shed light on the role of random intermolecular bonds in spin-crossover solid compounds.

Keywords Spin-crossover · Bond-random · Monte Carlo · Magnetization