

عنوان مقاله:

New fingerprint of the entanglement on the thermodynamic properties

محل انتشار:

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خلاصه مقاله:

The realization that entanglement can affect macroscopic properties of bulk solid-state systems is a challenge in physics and Chemistry. Theoretical physicists often are considered the entanglement between nearest-neighbor (NN) spins and tried to find its characterizations in terms of macroscopic thermodynamics observables as magnetization and specific heat. Here, we focus on the entanglement between next nearest neighbor (NNN) and the next to next nearest neighbor (NNNN) spins in an exactly solvable model. We show that there is a much clearer fingerprint of the longer-distance entanglement on the thermodynamic properties like the specific heat, the magnetocaloric effect and the magnetic susceptibility.

کلمات کلیدی:

Entanglement, spin, thermodynamic properties

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