

Magnetization Plateaus and Thermal Entanglement of Spin Systems

Nerses Ananikian

Yerevan Physics Institute
Alikhanyan Brs. Str. 2, Yerevan
Armenia

The quantum thermal entanglement and geometrically magnetic frustrations of anti-ferromagnetic metal-containing compounds with spin 1 and spin 1 systems are considered. One can obtain magnetization plateaus with multiple-spin exchange interaction using the dynamical and transfer matrix methods on chains, diamond-chains and diamond-like decorated Bethe lattices. Thermal entanglements such as concurrence and negativity are investigated. Super-stable and triple points in spin-1/2 and spin-1 are shown.