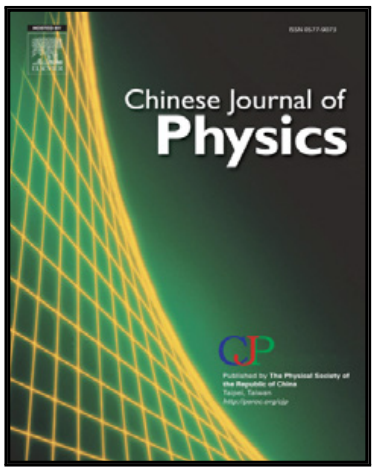

The Bimodal Random Crystal Field and Biquadratic Exchange Interaction Effects for the Spin-3/2 Ising Model on the Bethe Lattice

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Highlights

- The phase transition properties of the BEG model for spin3/2 on the BL is considered.
- Both effects of random crystal field and biquadratic exchange interactions are examined.
- D (K) is either turned on with probability 1p (q) or turned off with probability p (1q).
- Phase diagrams are obtained on the (K/J, kT/J) and (D/J,kT/J) planes on honeycomb lattice.
- The model presents secondand firstorder phase transitions, and also the tricritical points.