

Dipolar interaction in the Heisenberg chain

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We consider a linear chain with Heisenberg and Dipolar interactions. We study the state with all spins aligned along the chain. We pay special attention the magnetization properties of the linear chain. We use the double-time retarded Zubarev Green's function with use of the random phase approximation of Tyablikov.

1. Zubarev D.N., Usp.Fiz.Nauk., 1960, 71, 71.

2. Bogolyubov N.N., Tyablikov S.V., Dokl. Akad. Nauk. SSSR, 1959, 126, 533.