

CALCULATION OF HEAT CAPACITY OF AN
ISING CHAIN WITH REGARD FOR THE
INTERACTION OF THE NEAREST
NEIGHBOURS AND NEXT-NEAREST
NEIGHBOURS

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S u m m a r y

Summation over sets of spin variables in the statistical sum of an Ising chain with free ends, containing an arbitrary number of atoms, is realized. Interatomic interactions are taken into account for nearest neighbours and next-nearest neighbours. Heat capacity of the system is calculated for various values of the interaction parameters and number of sites of the chain.