

A ^{133}Cs NMR Spin-Lattice Relaxation Study in Incommensurate Cs_2CdI_4

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^{133}Cs NMR spin-lattice relaxation times (T_1) in crystalline Cs_2CdI_4 were measured at 225 - 373 K. The critical exponent ζ of T_1 observed near the normal-incommensurate transition in the normal phase was determined to be 0.62 ± 0.03 , in good agreement with the predicted value for three-dimensional XY -model. The frequency dependent T_1 in the incommensurate phase could be explained by the fluctuation of amplitudon and small gap phason.

Key words: ^{133}Cs NMR; T_1 ; Incommensurate; Phase Transition; Critical Exponent.