^{51}V NMR Study of a C15 Laves Phase Compound HfV_2

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We analyzed the K-χ plot in order to investigate the change in the electronic state in the C15 Laves phase compound HfV_2 at the lattice transformation temperature T_L (~ 120 K). We could obtain $K_{3d\ orb}$, $\chi_{3d\ orb}$ and $\chi_{5d\ orb} + (2/3)\ \chi_{Pauli} + \chi_{dia}$, which are consistent with those reported in our previous paper, and discussed the changes in density of states of the V 3d and 4s electrons at T_L.

For the superconducting state we discussed the d wave Anderson-Brinkman-Morel (ABM) type energy gap in which the gap is anisotropic and vanishes at points on the Fermi surface.

Key words: HfV_2; Anisotropic Energy Gap; Knight Shift; Spin-lattice Relaxation Rate; Magnetic Susceptibility.