

Magnetic Properties and Electronic Structures of Compounds from the Hf-Co Phase System

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Magnetic measurements of molar susceptibilities as a function of temperature in the temperature range between 5 and 400 K were performed for the intermetallic compounds Hf₂Co and HfCo₂, using a SQUID magnetometer. The density of states at the Fermi level for Hf₂Co was evaluated from the measured spin paramagnetic susceptibility. In addition, band structure calculations using the augmented plane waves plus local orbitals (APW+lo) method as implemented in the WIEN2k programme package for the two compounds were done. The obtained results were compared with the measured data.

Key words: Hf₂Co; HfCo₂; Augmented Plane Waves; Magnetic Susceptibility.