Spin fluctuation scattering in RCo₂ compounds

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Abstract: Field dependent resistivity measurements have been performed for NdCo₂ and PrCo₂ compounds. The influence of the localized 4f-moments, interacting with the 3d-matrix, is accentuated by subtracting the resistivity of YCo₂ from the observed resistivity values. The excess resistivity ???? (= ??(RCo₂) - ??(YCo₂)) which is enhanced above T_C by the presence of 4f-atoms is strongly temperature dependent. The results are discussed in terms of the thermal variation of the number of the Co-enhanced paramagnetic atoms. ?? 1995.

Index Keywords: Atoms; Electric conductivity measurement; Magnetic field effects; Magnetic moments; Magnetization; Melting; Neodymium alloys; Neutron scattering; Thermal effects; Arc melting; Spin fluctuation scattering; Cobalt alloys

Year: 1995 Source title: Journal of Magnetism and Magnetic Materials Volume: 140-144 Issue: PART 2 Page : 823-824 Cited by: 5 Link: Scorpus Link Correspondence Address: Duc, N.H.; Cryogenic Laboratory, University of Hanoi, Hanoi, Viet Nam ISSN: 3048853 CODEN: JMMMD Language of Original Document: English Abbreviated Source Title: Journal of Magnetism and Magnetic Materials Document Type: Article Source: Scopus Authors with affiliations: 1. Duc, N.H., Cryogenic Laboratory, University of Hanoi, Hanoi, Viet Nam

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