Co$_2$CrIn: A Further Magnetic Heusler Compound

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Z. Naturforsch. 61b, 749 – 752 (2006); received February 17, 2006

Dedicated to Professor Wolfgang Jeitschko on the occasion of his 70th birthday

A further example of the class of Heusler compounds is presented. Co$_2$CrIn is L2$_1$ ordered (face centered cubic, space group $Fm\bar{3}m$) with a lattice constant of $a = 6.0596(2)$ Å. The crystal structure was determined from powder diffraction data by means of the Rietveld method. The magnetic properties of Co$_2$CrIn were measured by means of SQUID magnetometry. The material turns out to be a soft ferromagnet with a saturation moment of 1.2 $\mu_B$ at 5 K.

Key words: Magnetic Properties, Heusler Compounds