

# On the magnetic properties of the $Y_{1-x}Gd_xCo_4B$ compounds

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**Abstract:** Magnetic phase transitions in  $Y_{1-x}Gd_xCo_4B$  with  $x$  ranging from 0 to 1 have been determined in the temperature range of 77 to 600K. The compensation temperature is found in the compounds with  $x \geq 0.6$ , while in the rest compounds a spin reorientation from the c-axis towards the basal plane upon decreasing temperature is observed. On the basis of the observed Curie and compensation temperatures the intersublattice exchange interaction coefficient has been derived and the contribution of the anisotropic exchange interaction to the anisotropy energy of the Gd containing compounds has been estimated. ?? 1992.  
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