The magnetic behaviour of rare-earth-transition metal compounds

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Abstract: The basic exchange interactions will be discussed for a variety of (R, T) compounds, in particular RT_2 (R: rare earth, or Y; T: transition metal). A magnetic phase diagram for (R, Y)Co_2 compounds is derived. The combined effect of the volume and the molecular field caused by the rare-earth spins is demonstrated on R(Co, Fe)$_2$, (R, Y)Co_2, R(Co, Al)$_2$ and R(Co, Cu)$_2$, with an emphasis on the metamagnetic transition in the 3d-subsystem. ?? 1992.

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