# Magnetic anisotropy of the $Y(Co_{1-x}Fe_x)_3$ pseudobinary compounds

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Abstract: The anisotropy energy of the $Y(Co_{1-x}Fe_x)_3$ compounds has been determined between 4.2 and 250 K. The concentration dependence of the anisotropy energy behaves anomalously in this pseudo-binary series. Upon increasing the iron content, the anisotropy energy increases up to x = 0.25, then decreases, changes sign around x = 0.45 and reaches a flat minimum at the iron-rich side. This anomaly can satisfactorily be explained in terms of the individual site anisotropy model by considering the different occupancy factors of iron and cobalt for the 3d sites. ?? 1989.

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