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Electron paramagnetic resonance of Yb³⁺ ions in a concentrated YbRh₂Si₂ compound with heavy fermions

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Abstract

The EPR signal from localized ytterbium ions was observed in an undoped YbRh₂Si₂ compound with heavy fermions in the temperature range from 1.5 to 25 K. The exponential contribution dominating the temperature dependence of EPR line width at temperatures above 15 K was shown to be caused by the random transitions from the ground to the first excited Stark sublevel of the Yb³⁺(4f¹³) ion with the activation energy $\Delta = 115$ K. © 2003 MAIK "Nauka/Interperiodica".

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