Magnetic Properties of SmRhIn

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The indide SmRhIn (ZrNiAl type, $P\bar{6}2m$, $a = 750.93(8)$, $c = 397.52(4)$ pm) was synthesized from the elements by arc-melting. SmRhIn orders antiferromagnetically at 8.0(5) K. The non-linearity of the temperature dependence of the inverse susceptibility points to a large van Vleck term for the samarium atoms. Magnetization measurements indicate a metamagnetic transition at a flux density of 3 T.

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