substance: Ru_2Si_3
property: physical properties

Ru_2Si_3 (r) (room-temperature modification)

energy gap

$E_{g,th}$	0.7 eV	from resistivity measurement assuming $\rho \propto \exp(E_g/2kT)$, T = 1050 ...1300 K, four-probe method, poly-crystalline bar, pressed Mo contacts	80S

magnetic susceptibility

χ_g	$-0.52 \cdot 10^{-6}$ cm^3 g^{-1}	RT, B = 5...10 kG	Faraday method, powder sample, χ_g in CGS-emu	80S

transition temperature

T_{tr}	1300 K	diffusionless phase transition	80S

Ru_2Si_3 (h) (high-temperature modification)

energy gap

$E_{g,th}$	0.44 eV	from $\rho(T)$,T = 1400...1700 K	80S

melting point

T_m	2070 K	congruent	75P
	1983 K	congruent	65O

$Ru_2(Si,Ge)_3$

The energy gap of the h-modification, as well as the transition temperature decrease with growing Ge concentration. For all concentrations E_g (r) > E_g (h) [80S].

References:

65O Obrowski, W.: Metall 19 (1965) 741.
75P Poutcharovsky, D. J., Yvon, K., Parthé, F.: J. Less-Common Met. 40 (1975) 139.
80S Susz, C. P., Muller, J., Yvon, K., Parthé, F.: J. Less-Common Met. 71 (1980) P1.