

SrMg_{5.2}*hP46*(194) *P6₃/mmc* – kh²gfe²ba**SrMg_{5.2}** [1]

Structural features: Puckered triangle-mesh Mg₁₁(Mg,□) layers and Sr₃Mg₃(Mg,□) layers (Sr₃ trigonal clusters) alternate along [001]; disordered atom arrangement along 0 0 *z*.

Erassme J. et al. (1988) [1]

Mg_{5.25}Sr*a* = 1.0463, *c* = 1.0834 nm, *c/a* = 1.035, *V* = 1.0272 nm³, *Z* = 6

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Mg1	12 <i>k</i>	<i>m.</i>	0.1601	0.3202	0.5898		
Sr2	6 <i>h</i>	<i>mm2</i>	0.1955	0.3910	1/4		
Mg3	6 <i>h</i>	<i>mm2</i>	0.5682	0.1364	1/4		icosahedron Mg ₁₀ Sr ₂
Mg4	6 <i>g</i>	<i>.2/m.</i>	1/2	0	0		icosahedron Mg ₈ Sr ₄
Mg5	4 <i>f</i>	<i>3m.</i>	1/3	2/3	0.5065		icosahedron Mg ₉ Sr ₃
Mg6	4 <i>e</i>	<i>3m.</i>	0	0	0.079	0.26	
Mg7	4 <i>e</i>	<i>3m.</i>	0	0	0.158	0.21	
Mg8	2 <i>b</i>	<i>-6m2</i>	0	0	1/4	0.386	
Mg9	2 <i>a</i>	<i>-3m.</i>	0	0	0	0.410	

Experimental: single crystal, diffractometer, X-rays, R = 0.023, T = 293 K

Remarks: Short interatomic distances for partly occupied site(s).

References: [1] Erassme J., Brauers T., Lueken H. (1988), *J. Less-Common Met.* 137, 155-161.