

$\text{Ba}_3\text{Ag}_{12}(\text{Ag}_{0.4}\text{Al}_{0.6})_6\text{Al}_3$	<i>hP</i> 24	(189) <i>P</i> -62 <i>m</i> – <i>ji</i> ² <i>gda</i>
--	--------------	---

Ba₃Ag_{14.6}Al_{6.4} [1]

Structural features: Puckered hexagon-mesh Ag₆ layers alternate with Ba((Al,Ag)₃)₂ and Ba₂(Al₃) layers (the Ba atoms and the centers of the (Al,Ag)₃ or Al₃ triangles form a triangle mesh) alternate along [001].

Cordier G., Röhr C. (1991) [1]

Ag_{14.63}Al_{6.37}Ba₃

a = 0.8913, *c* = 0.7278 nm, *c/a* = 0.817, *V* = 0.5007 nm³, *Z* = 1

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
M1	6 <i>j</i>	<i>m</i> ..	0.3163	0.4896	0		9-vertex polyhedron Al ₃ Ag ₆
Ag2	6 <i>i</i>	.. <i>m</i>	0.3642	0	0.2047		icosahedron Al ₅ Ag ₄ Ba ₃
Ag3	6 <i>i</i>	.. <i>m</i>	0.7081	0	0.2995		pseudo Frank-Kasper Al ₄ Ag ₄ Ba ₃
Al4	3 <i>g</i>	<i>m</i> 2 <i>m</i>	0.1837	0	¹ / ₂		8-vertex polyhedron Ag ₆ Al ₂
Ba5	2 <i>d</i>	-6..	¹ / ₃	² / ₃	¹ / ₂		21-vertex polyhedron Ag ₁₂ Al ₉
Ba6	1 <i>a</i>	-62 <i>m</i>	0	0	0		pseudo Frank-Kasper Ag ₁₂ Al ₁₂

M1 = 0.562Al + 0.438Ag

Experimental: single crystal, diffractometer, X-rays, R = 0.027

References: [1] Cordier G., Röhr C. (1991), J. Less-Common Met. 170, 333-357.