

$\text{Ba}_3\text{Cu}[\text{P}_2\text{O}_7]\text{Br}_3$	<i>hP48</i>	(176) $P6_3/m - i^2h^3fa$
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**Ba<sub>3</sub>Cu(P<sub>2</sub>O<sub>7</sub>)Br<sub>3</sub> [1]**

Structural features: Units of two vertex-linked PO<sub>4</sub> tetrahedra (parallel to [001], split O sites) and CuBr<sub>3</sub> trigonal units (perpendicular to [001]).

Etheredge K.M.S. et al. (1996) [1]

Ba<sub>3</sub>Br<sub>3</sub>CuO<sub>7</sub>P<sub>2</sub>

$a = 1.0161$ ,  $c = 0.7044$  nm,  $c/a = 0.693$ ,  $V = 0.6298$  nm<sup>3</sup>,  $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
O1	12 <i>i</i>	1	0.173	0.543	0.015	0.667	
O2	12 <i>i</i>	1	0.545	0.355	0.076	0.333	
Br3	6 <i>h</i>	<i>m</i> ..	0.2417	0.2461	<sup>1</sup> / <sub>4</sub>		single atom Cu
O4	6 <i>h</i>	<i>m</i> ..	0.259	0.609	<sup>1</sup> / <sub>4</sub>	0.333	non-colinear O <sub>2</sub>
Ba5	6 <i>h</i>	<i>m</i> ..	0.39441	0.04523	<sup>1</sup> / <sub>4</sub>		non-colinear O <sub>2</sub>
P6	4 <i>f</i>	3..	<sup>1</sup> / <sub>3</sub>	<sup>2</sup> / <sub>3</sub>	0.0387		
Cu7	2 <i>a</i>	-6..	0	0	<sup>1</sup> / <sub>4</sub>		coplanar triangle Br <sub>3</sub>

Transformation from published data: *y*,*x*,*-z*; origin shift 0 0 <sup>1</sup>/<sub>2</sub>

Experimental: single crystal, diffractometer, X-rays, R = 0.030, T = 155 K

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

References: [1] Etheredge K.M.S., Mackay R., Schimek G.L., Hwu S.J. (1996), Inorg. Chem. 35, 7919-7921.