

Ce<sub>24</sub>Co<sub>11</sub>*hP*70(186) *P*6<sub>3</sub>*mc* – c<sup>10</sup>b<sup>2</sup>a<sup>3</sup>**Ce<sub>24</sub>Co<sub>11</sub>** [1]

Structural features: Slabs of edge- and vertex-linked CoCe<sub>6</sub> trigonal prisms are interconnected via additional CoCe<sub>6</sub> trigonal prisms and CoCe<sub>4</sub> tetrahedra to form a 3D-framework.

Larson A.C., Cromer D.T. (1962) [1]

Ce<sub>24</sub>Co<sub>11</sub>*a* = 0.9587, *c* = 2.1825 nm, *c/a* = 2.277, *V* = 1.7372 nm<sup>3</sup>, *Z* = 2

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Ce1	6 <i>c</i>	. <i>m</i> .	0.1245	0.8755	0.3528		15-vertex Frank-Kasper Co <sub>5</sub> Ce <sub>10</sub>
Ce2	6 <i>c</i>	. <i>m</i> .	0.2011	0.7989	0.2070		16-vertex Frank-Kasper Co <sub>6</sub> Ce <sub>10</sub>
Ce3	6 <i>c</i>	. <i>m</i> .	0.2016	0.7984	0.0442		15-vertex Frank-Kasper Co <sub>4</sub> Ce <sub>11</sub>
Ce4	6 <i>c</i>	. <i>m</i> .	0.2065	0.7935	0.4979		14-vertex polyhedron Co <sub>3</sub> Ce <sub>11</sub>
Co5	6 <i>c</i>	. <i>m</i> .	0.4819	0.5181	0.2780		tricapped trigonal prism Ce <sub>9</sub>
Ce6	6 <i>c</i>	. <i>m</i> .	0.5414	0.4586	0.1322		14-vertex polyhedron Co <sub>4</sub> Ce <sub>10</sub>
Ce7	6 <i>c</i>	. <i>m</i> .	0.5420	0.4580	0.4013		14-vertex polyhedron Co <sub>3</sub> Ce <sub>11</sub>
Ce8	6 <i>c</i>	. <i>m</i> .	0.7971	0.2029	0.2656		16-vertex Frank-Kasper Co <sub>5</sub> Ce <sub>11</sub>
Co9	6 <i>c</i>	. <i>m</i> .	0.8497	0.1503	0.1189		bicapped square prism Ce <sub>10</sub>
Co10	6 <i>c</i>	. <i>m</i> .	0.8544	0.1456	0.4308		trigonal prism Ce <sub>6</sub>
Co11	2 <i>b</i>	3 <i>m</i> .	<sup>1</sup> / <sub>3</sub>	<sup>2</sup> / <sub>3</sub>	0.1225		tricapped trigonal prism Ce <sub>9</sub>
Ce12	2 <i>b</i>	3 <i>m</i> .	<sup>1</sup> / <sub>3</sub>	<sup>2</sup> / <sub>3</sub>	0.3423		15-vertex Frank-Kasper Co <sub>3</sub> Ce <sub>12</sub>
Ce13	2 <i>a</i>	3 <i>m</i> .	0	0	0.0000		16-vertex Frank-Kasper Co <sub>6</sub> Ce <sub>10</sub>
Ce14	2 <i>a</i>	3 <i>m</i> .	0	0	0.1544		tetrahedron Co <sub>4</sub>
Co15	2 <i>a</i>	3 <i>m</i> .	0	0	0.2744		tetrahedron Ce <sub>4</sub>

Transformation from published data: -*x*, -*y*, -*z*; origin shift 0 0 0.293Experimental: single crystal, diffractometer, X-rays, *R* = 0.103

References: [1] Larson A.C., Cromer D.T. (1962), Acta Crystallogr. 15, 1224-1227.