

Ho ₆ Co _{4.5}	<i>hP</i> 22	(176) <i>P</i> 6 ₃ / <i>m</i> – h ³ cb
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Ho₄Co₃ [1]

Structural features: Infinite columns of base-linked CoHo₆Co₃ and CoHo₆(Ho₂Co) tricapped trigonal prisms share atoms to form a 3D-framework with AlB₂-type columns (4 prisms in the triangular section); additional Co (partial disorder) in channels of hexagonal cross-section parallel to [001].

Lemaire R. et al. (1969) [1]

Co_{4.60}Ho₆

a = 1.140, *c* = 0.399 nm, *c/a* = 0.350, *V* = 0.4491 nm³, *Z* = 2

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Co1	6 <i>h</i>	<i>m</i> ..	0.1578	0.4415	1/4		tricapped trigonal prism CoHo ₈
Ho2	6 <i>h</i>	<i>m</i> ..	0.2457	0.2248	1/4		pseudo Frank-Kasper Co ₅ Ho ₈
Ho3	6 <i>h</i>	<i>m</i> ..	0.5150	0.1360	1/4		7-capped pentagonal prism Co ₇ Ho ₁₀
Co4	2 <i>c</i>	-6..	1/3	2/3	1/4		tricapped trigonal prism Co ₃ Ho ₆
Co5	2 <i>b</i>	-3..	0	0	0	0.6	square prism (cube) Co ₂ Ho ₆

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

Experimental: single crystal, Weissenberg photographs, X-rays, *R* = 0.088

Remarks: Supersedes a refinement in space group (173) *P*6₃ in [2].

References: [1] Lemaire R., Schweizer J., Yakinthos J. (1969), Acta Crystallogr. B 25, 710-713. [2] Lemaire R., Schweizer J. (1967), C. R. Seances Acad. Sci., Ser. B 264, 642-644.