$Hf_2Co_4P_3$	*hP*36	(189) *P*-62*m* – $k^2jg^2f^3ca$

$Hf_2Co_4P_3$ [1]; $Nb_2Co_4P_3$ [2]
Structural features: Infinite columns of base-linked $P(Hf_4Co_2)Co_3$ and $P(Hf_2Co_4)(HfCo_2)$ tricapped trigonal prisms share atoms to form a 3D-framework (a framework of base- and edge-linked $P(Hf_4Co_2)$ prisms with 6-fold prism columns shifted by *c*/2 in channels).

Ganglberger E. (1968) [1]
$Co_4Hf_2P_3$
$a = 1.20559$, $c = 0.36249$ nm, $c/a = 0.301$, $V = 0.4563$ nm^3, $Z = 4$

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
P1	6*k*	*m*..	0.1773	0.487	$^1/_2$		tricapped trigonal prism Co_5Hf_4
Co2	6*k*	*m*..	0.3566	0.4834	$^1/_2$		cuboctahedron $P_4Co_3Hf_5$
Co3	6*j*	*m*..	0.1776	0.3734	0		cuboctahedron $P_4Co_4Hf_4$
Co4	3*g*	*m*2*m*	0.2794	0	$^1/_2$		cuboctahedron $P_4Co_4Hf_4$
Hf5	3*g*	*m*2*m*	0.8244	0	$^1/_2$		22-vertex polyhedron $P_8Co_{10}Hf_4$
P6	3*f*	*m*2*m*	0.1791	0	0		square pyramid Co_5
Hf7	3*f*	*m*2*m*	0.4454	0	0		13-vertex polyhedron P_5Co_8
P8	3*f*	*m*2*m*	0.6532	0	0		tricapped trigonal prism Co_6Hf_3
Hf9	2*c*	-6..	$^1/_3$	$^2/_3$	0		23-vertex polyhedron $P_9Co_9Hf_5$
Co10	1*a*	-62*m*	0	0	0		tricapped trigonal prism P_3Hf_6

Transformation from published data: -*x*,-*y*,-*z*
Experimental: single crystal, Weissenberg photographs, X-rays, R = 0.077

Remarks: In table 1 of [1] the *x*-coordinate of former P(2) is misprinted as 0.2097 instead of 0.3097 (checked on interatomic distances).

References: [1] Ganglberger E. (1968), Monatsh. Chem. 99, 566-574. [2] Kuz'ma Y.B., Lomnitskaya Y.F. (1980), Inorg. Mater. 16, 592-595 (Izv. Akad. Nauk SSSR, Neorg. Mater. 16, 852-855).