$Lu_3Co_2In_4$	*hP*9	(174) *P*-6 – kjeda

$Lu_3Co_{2-x}In_4$ [1]
Structural features: Infinite columns of base-linked $InLu_6$ and $CoLu_6$ trigonal prisms share edges to form a 3D-framework; single columns of base-linked $CoIn_6$ trigonal prisms (partial vacancies ignored) in channels parallel to [001]. Substitution derivative of Fe_2P.

Zaremba V.I. et al. (1989) [1]
$Co_{1.87}In_4Lu_3$
$a = 0.7814$, $c = 0.3521$ nm, $c/a = 0.451$, $V = 0.1862$ nm^3, $Z = 1$

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
Lu1	3*k*	*m*..	0.2949	0.2517	$^1/_2$		15-vertex Frank-Kasper $Co_3In_8Lu_4$
In2	3*j*	*m*..	0.0744	0.4094	0		14-vertex Frank-Kasper $Co_3In_5Lu_6$
In3	1*e*	-6..	$^2/_3$	$^1/_3$	0		pentacapped trigonal prism In_5Lu_6
Co4	1*d*	-6..	$^1/_3$	$^2/_3$	$^1/_2$	0.87	pseudo Frank-Kasper $In_6Lu_3Co_2$
Co5	1*a*	-6..	0	0	0		pseudo Frank-Kasper $Lu_6In_3Co_2$

Transformation from published data: *-y*,*-x*,*-z*
Experimental: single crystal, diffractometer, X-rays, R = 0.034

Remarks: In the English summary of [1] the cell parameter ratio *c*/*a* is misprinted as 0.4560 instead of 0.4506 (given in the text); the cell volume is misprinted as 0.2256 nm^3 instead of 0.1862 nm^3.

References: [1] Zaremba V.I., Kalychak Y.M., Zavalii P.Y., Sobolev A.N. (1989), Dopov. Akad. Nauk Ukr. RSR, Ser. B 1989(2), 37-39.