$La_5Ni_{1.75}Si_3$	*hP*44	(176) $P6_3/m$ – h^6eda

$La_5Ni_{1.75}Si_3$ [1]
Structural features: Infinite columns of base-linked $NiLa_6Si_3$, $SiLa_6(Ni_2La)$ and $SiLa_6(NiLa_2)$ tricapped trigonal prisms share atoms to form a 3D-framework with AlB_2-type (BaLiSi) columns (9 prisms in the triangular cross-section); additional Ni (partial disorder) in channels of hexagonal cross-section parallel to [001].

Prots' Y.M., Jeitschko W. (1998) [1]
$La_5Ni_{1.75}Si_3$
a = 1.6244, c = 0.4344 nm, c/a = 0.267, V = 0.9927 nm^3, Z = 4

site	Wyck.	sym.	x	y	z	occ.	atomic environment
La1	6*h*	*m*..	0.00996	0.18316	$^1/_4$		
Si2	6*h*	*m*..	0.1677	0.5522	$^1/_4$		tricapped trigonal prism Ni_2La_7
Si3	6*h*	*m*..	0.2329	0.3293	$^1/_4$		tricapped trigonal prism $NiLa_8$
Ni4	6*h*	*m*..	0.2821	0.4991	$^1/_4$		tricapped trigonal prism Si_3La_6
La5	6*h*	*m*..	0.40055	0.26433	$^1/_4$		7-capped pentagonal prism $Ni_2Si_5La_{10}$
La6	6*h*	*m*..	0.45525	0.06803	$^1/_4$		7-capped pentagonal prism $Ni_2Si_5La_{10}$
Ni7	4*e*	3..	0	0	0.114	0.083	
La8	2*d*	-6..	$^2/_3$	$^1/_3$	$^1/_4$		pseudo Frank-Kasper $Si_6Ni_6La_8$
Ni9	2*a*	-6..	0	0	$^1/_4$	0.335	

Experimental: single crystal, diffractometer, X-rays, R = 0.026, T = 295 K

Remarks: Short interatomic distances for partly occupied site(s). In table 2 of [1] the z-coordinate of former La4 is misprinted as $^1/_4$ instead of $^3/_4$ and the corresponding Wyckoff position as 2*c* instead of 2*d* (from the description of the structure, checked on interatomic distances).

References: [1] Prots' Y.M., Jeitschko W. (1998), Inorg. Chem. 37, 5431-5438.