$La_{15}FeGe_9$	*hP*50	(186) $P6_3mc$ – dc^6b

$La_{15}Ge_9Fe$ [1]
Structural features: $GeLa_8$ square antiprisms ($GeLa_6La_2$ bicapped trigonal prisms) share atoms to form a 3D-framework with infinite columns of face-linked La_6 octahedra (every second centered by Fe) and infinite linear -La- chains. Filled-up derivative of Mn_5Si_3.

Guloy A.M., Corbett J.D. (1996) [1]
$FeGe_9La_{15}$
a = 1.5481, c = 0.68768 nm, c/a = 0.444, V = 1.4273 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
La1	12*d*	1	0.34207	0.01768	0.016		14-vertex Frank-Kasper Ge_6La_8
Ge2	6*c*	.*m*.	0.1328	0.8669	0.2439		tricapped trigonal prism La_8Ge
La3	6*c*	.*m*.	0.25333	0.74667	0.2389		trigonal bipyramid $FeGe_4$
Ge4	6*c*	.*m*.	0.4661	0.5339	0.2547		icosahedron La_9Ge_2Fe
La5	6*c*	.*m*.	0.58632	0.41368	0.2759		single atom Fe
Ge6	6*c*	.*m*.	0.80005	0.19995	0.3045		tricapped trigonal prism La_8Ge
La7	6*c*	.*m*.	0.9198	0.0802	0.2915		15-vertex Frank-Kasper Ge_5La_{10}
Fe8	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.0		octahedron La_6

Transformation from published data: -*x*,-*y*,-*z*; origin shift 0 0 0.984
Experimental: single crystal, diffractometer, X-rays, R = 0.026

References: [1] Guloy A.M., Corbett J.D. (1996), Inorg. Chem. 35, 4669-4675.