

Pattern : 28-5		Radiation = 1.540600		Quality : Indexed		
AlCu ₃		2th	i	h	k	l
Aluminum Copper		20.027	3	1	0	2
		26.347	8	1	1	1
		27.165	12	0	1	11
		30.347	2	1	0	12
		34.577	3	0	2	1
		40.284	50	2	0	2
		42.739	65	0	0	
		44.810	100	1	2	10
		46.611	80	2	0	12
		51.409	2	1	2	
		52.423	2	1	1	
		55.116	8	1	0	
		57.052	8	2	1	
		60.026	2	1	1	
		63.444	4	0	3	
		68.999	2	2	3	4
		73.000	25	2	1	
		78.306	10	3	2	13
		82.438	6	3	0	
		86.907	2	3	2	
Lattice : Orthorhombic		Mol. weight = 217.62				
S.G. : P (0)		Volume [CD] = 1086.92				
a = 4.49400	Z = ??	Dx = 7.314				
b = 5.18900						
c = 46.61000						
a/b = 0.86606						
c/b = 8.98246						
<p>General comments: Designated β_1 phase by authors. Sample preparation: Copper with 24.38 atomic % Al. Copper 99.9% Cu + 99.99% Al, melted, kept 2 days at 20 C below solidus. Filings in evacuated tubes for 7 minutes at 1020 C, quenched. General comments: Superstructure, 22 layers in c-direction. General comments: Martensite phase. Data collection flag: Ambient.</p>						
Warlimont, H., Wilkens., Z. Metallkd., volume 55, page 382 (1964).						
Radiation : CuK α 1		Filter : Monochromator crystal				
Lambda : 1.54050		d-sp : Not given				
SS/FOM : F20= 1(0.0510,563)						

Pattern : 50-955

Radiation = 1.540600

Quality : High

AlFe ₃		2 θ	i	h	k	l				
Aluminum Iron		26.527	7	1	1	1				
		30.725	4	2	0	0				
		44.008	100	2	2	0				
		52.124	3	3	1	1				
		54.030	1	2	2	2				
		63.993	15	4	0	0				
		70.538	1	3	3	1				
		72.657	1	4	2	0				
		80.927	29	4	2	2				
		86.996	1	5	1	1				
		97.070	10	4	4	0				
		103.201	1	5	3	1				
		105.276	1	6	0	0				
		113.820	18	6	2	0				
		120.608	1	5	3	3				
		127.974	1	6	2	2				
		133.208	7	4	4	4				
		142.161	1	5	5	1				
		145.594	1	6	4	0				
Lattice : Face centered cubic		Mol. weight = 194.52								
S.G. : Fm 3m (225)		Volume [CD] = 196.65								
a = 5.81520		Dx = 6.570								
Z = 4										
<p>Sample preparation: A solid solution with the composition Al₂₅Fe₇₅ was heated from 500-600 C.</p> <p>Additional pattern: See 6-695 and 45-1203.</p> <p>Additional pattern: To replace 6-695.</p> <p>Data collection flag: Ambient.</p>										
<p>Rafaja, D., Kratochvíl, P., Kopeček, J., Scr. Metall., volume 34, page 1307 (1996)</p>										
Radiation : CuK α		Filter : Not specified								
Lambda : 1.54180		d-sp : Not given								
SS/FOM : F19-169(0.0059,19)										