

Al <sub>5</sub> Fe <sub>2</sub>		2 $\theta$	Int	h	k	l
Aluminum Iron		18.033	50	1	1	0
		23.235	50	2	0	0
		27.848	80	0	2	0
		27.848		1	1	1
		35.121	5	0	2	1
Rad.: CoK $\alpha$ 1 $\lambda$ : 1.7890 Filter: d-sp: Guinier		37.948	15	3	1	0
Cut off: Int.: Estimation I/lor.:		42.552	100	2	2	1
Ref: Ellner, M., Mayer, J., Scripta Metall. Mater., 26, 501 (1992)		42.863	80	0	0	2
		43.797	100	3	1	1
		43.942	80	1	3	0
		46.852	50	1	1	2
Sys.: Orthorhombic S.G.: Cmcm (63)		47.512	15	4	0	0
a: 7.6486(12) b: 6.4131(9) c: 4.2165(8) A: 1.1927 C: 0.6575		49.222	10	1	3	1
α: β: γ: Z: 2 mp:		49.222		2	0	2
Ref: Ibid.		51.881	80	0	2	2
		56.094	5	3	3	0
		57.447	15	0	4	0
		57.573	15	2	2	2
Dx: 3.960 Dm: SS/FOM: F <sub>22</sub> = 29(0.025, 30)		60.440	50	4	2	1
		60.440	50	3	3	1
		62.365	5	5	1	0
		62.811	5	2	4	0
Mixtures of Al and Fe were melted under argon in a high-frequency furnace. The melted alloys were homogenized in corundum crucibles encapsulated in evacuated silica tubes at 1200 K for 24 hours and quenched. Chemical analysis (wt.%): Al 71.4, Fe 28.6. Al <sub>5</sub> Fe <sub>2</sub> type. C.D. Cell: a=6.413, b=7.649, c=4.216, a/b=0.8385, c/b=0.5513, S.G.=Cmcm(63). Silicon used as an internal stand. PSC: oC14. To replace 29-43. Mwt: 246.60. Volume[CD]: 206.82.		63.039	50	1	3	2
		65.874	15	4	0	2
		66.978	50	2	4	1



FeAl2				2 $\theta$	Int	h	k	l
Aluminum Iron				22.433	10			
				24.434	22			
				24.921	35			
				26.831	10			
				26.997	5			
Rad.:	$\lambda$ :	Filter:	d-sp:	32.655	5			
Cut off:	Int.:	Diffra.:	I/lor.:	38.957	10			
Ref: Urednicek, M., Kirkaldy, Z. Metallkd., 64, 899 (1973)				41.463	15			
				42.823	60			
				43.037	65			
				43.472	40			
				43.781	100			
Sys.:	S.G.:			44.141	55			
a:	b:	c:	A:	C:	44.576	45		
$\alpha$ :	$\beta$ :	$\gamma$ :	Z:	mp:	44.926	25		
Ref:								
Dx:				Dm:	SS/FOM: F	=		

O assigned because reflections are given for  $\theta$  between  $5^\circ$  and  $9^\circ$  only. Mwt: 109.81.

