

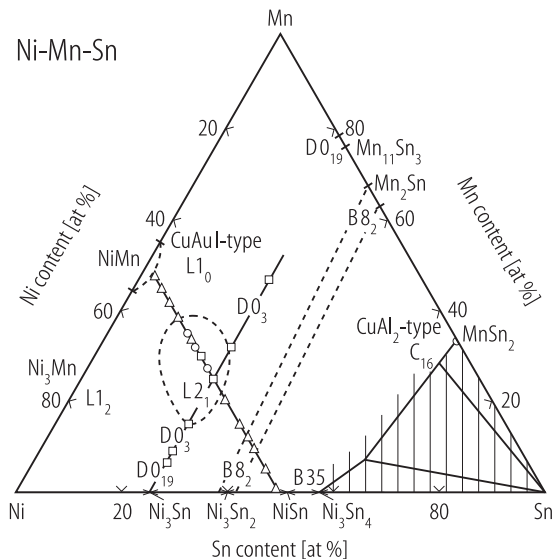
Table 2. Cu₂MnAl. A summary of the phase content after various heat treatments [83K2]. T_a : annealing temperature for 24 hours.

T_a [°C]	Volume fractions of phases [%]				Properties of β phase	
	γ	T	β Mn	β	a [Å]	T_C [°C]
150				100	5.962	327
200				100	5.959	326
250				100	5.963	326
300				100	5.962	327
350	5	12		84	5.961	339
400	44	25	17	7	5.960	317
450	24		25	51	5.896	57
500	15		33	52	5.913	113
550	6		35	59	5.919	139
600			18	82	5.921	202
650			18	82	5.930	239
700				100	5.961	326

1.5.5.2.2 Ternary phase diagrams

There are very few ternary phase diagrams reported for Heusler alloys. Those which have appeared since 1985 [88W1] have been primarily associated with the investigation of the mechanical properties.

Ni–Mn–Sn

**Fig. 7.** Ni–Mn–Sn. Ternary phase diagram [83W1].

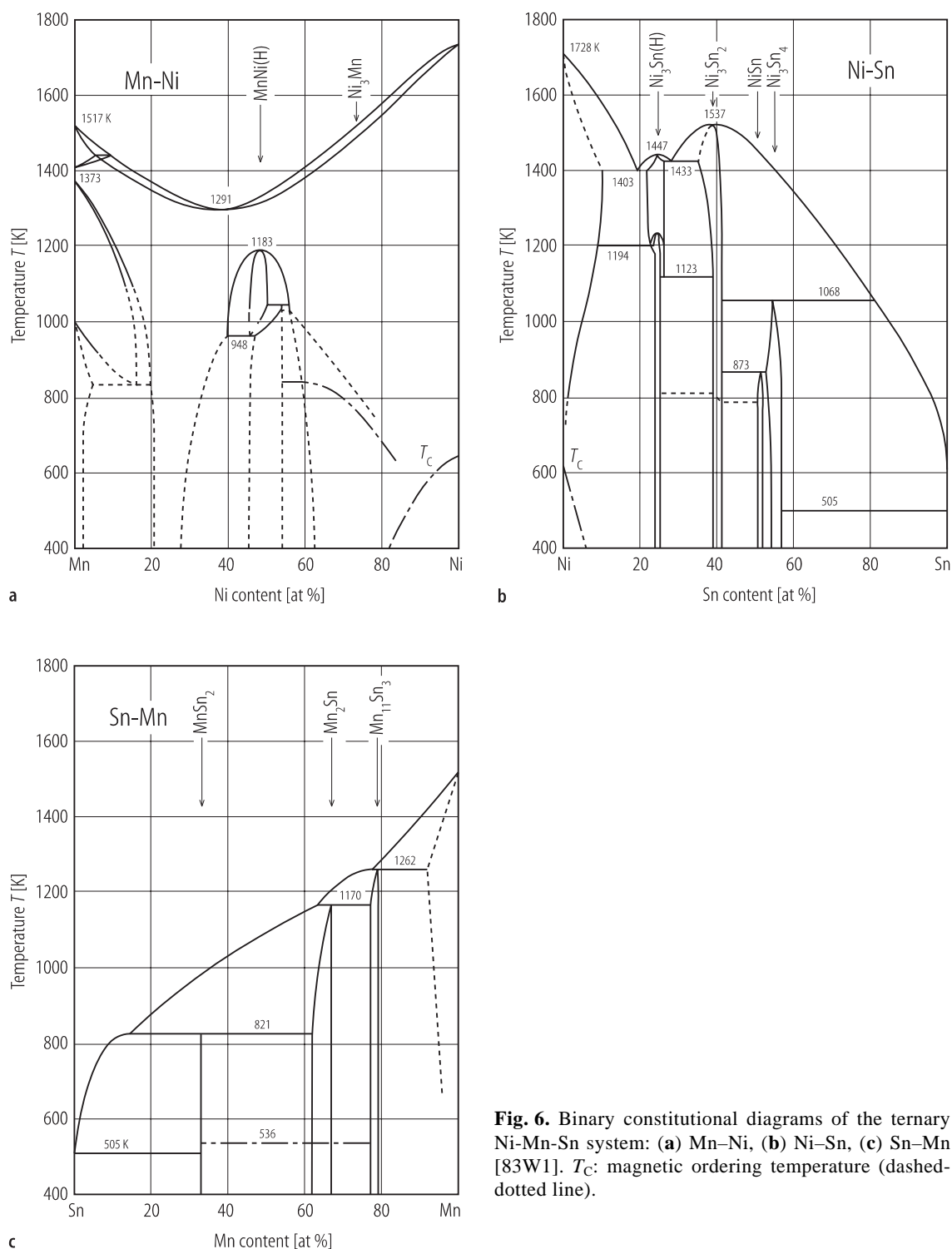


Fig. 6. Binary constitutional diagrams of the ternary Ni-Mn-Sn system: (a) Mn-Ni, (b) Ni-Sn, (c) Sn-Mn [83W1]. T_C : magnetic ordering temperature (dashed-dotted line).

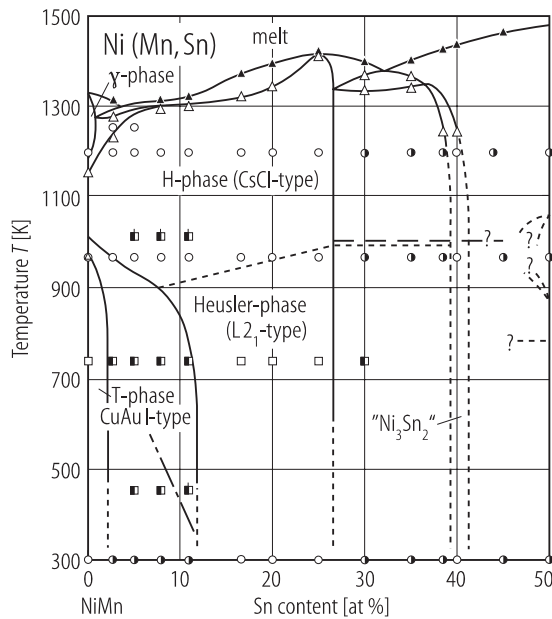


Fig. 8. Vertical section of the phase diagram of Ni(Mn,Sn) system for a constant 50 at% Nickel concentration [83W1].

Ni-Fe-Al

The phase diagram was investigated with the aim of obtaining a high creep resistance in intermetallic phases.

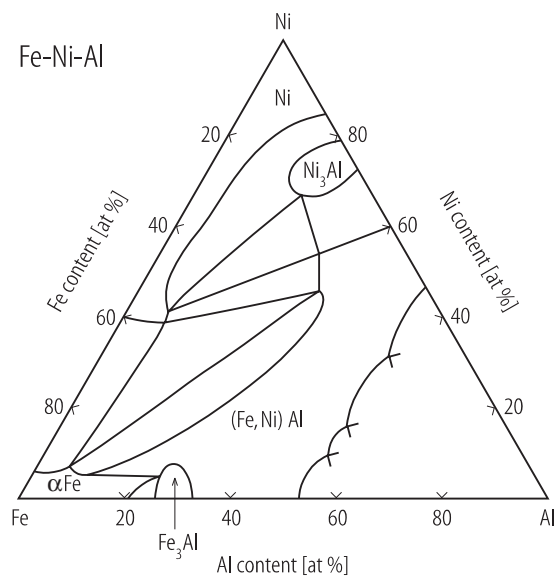


Fig. 9. Isothermal section at 400 °C of the Fe-Ni-Al phase diagram [87J1].

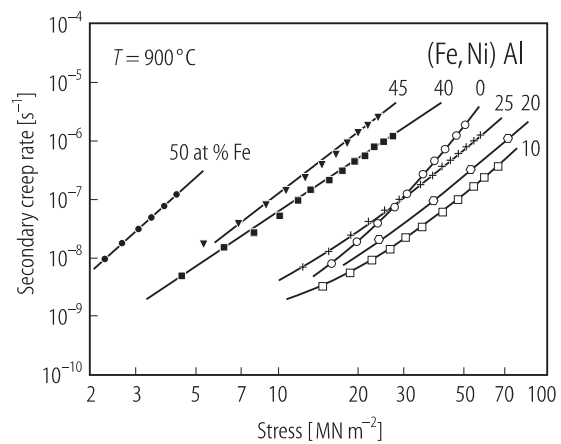


Fig. 10. Stress dependence of the secondary creep rate of various stoichiometric (Fe,Ni)Al phases at 900 °C [87J1].