

TABLE 6.2 continued.

Material	Composition, %	Condition <sup>A</sup>	Initial Relative Permeability	Maximum Relative Permeability	Saturation Flux Density, T	Coercive Force from Saturation, A/m	Curie Point, °C	Ref.
17-4 PH	17 Cr, 4 Ni, 1 Mn, 1 Si, 0.7 C	Annealed		95				[12]
17-4 PH	17 Cr, 4 Ni, 1 Mn, 1 Si, 0.7 C	Hardened		151				[12]
17-7 PH	17 Cr, 7 Ni, 1 Mn, 1 Si, 0.9 C	Hard temper		125				[12]
Tungsten steel	6 W, 1 Cr, 1 C 6 W, 0.5 Cr, 0.7 C	Quenched					660 760	[6] [8]
Iron carbide	Cementite, Fe <sub>3</sub> C				1.24		215	[13]
Iron oxides	Ferric oxide, Fe <sub>2</sub> O <sub>3</sub> , rust	Pressed 1100–1200°C		9200			620	[3,6]
	γ-Fe <sub>2</sub> O <sub>3</sub> , brown iron oxide						470	[5]
	Ferrosferric oxide, Fe <sub>3</sub> O <sub>4</sub> (black iron oxide, magnetite)	Pressed 1100–1200°C	5	25	0.6		575	[3,6]
Cobalt	99 Co	HT 1000	70	250	1.79–1.82	800	1120	[2,3]
Nickel	99 Ni	HT 1000	110	600	0.61	60	358	[3]
Nickel alloys	4.8 Mn 1 Si 5 Si						260 320 45	[11] [7] [7]

<sup>A</sup>HT = heat treated at the indicated temperatures, °C.

<sup>B</sup>Numerals in brackets designate references listed at the end of the chapter.