

TABLE AI. (Continued)

| Material | Condition | Transition conditions | | Technique | Remarks | References |
|--------------------------------|-------------------|-----------------------|-----------------|-----------|--------------------------------------|-----------------------------|
| | | Stress (GPa) | Compression (%) | | | |
| Iron-silicon alloys | | | | | | |
| Fe-0.45 wt % Si | AR | 12.8 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-0.95 wt % Si | AR | 13.2 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-1.92 wt % Si | AR | 14.0 | ... | E-1 | 25 mm, ϕ | Zukas <i>et al.</i> (1963) |
| Fe-2.90 wt % Si | AR | 14.7 | ... | E-1 | ASTM grain size minus 2, 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-3.82 wt % Si | AR | 15.4 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-4.60 wt % Si | AR | 15.8 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-6.85 wt % Si | AR | 22.5 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-2.9 wt % Si | [111] crystal, AR | 14.5 | ... | E-1 | 25 mm | Zukas <i>et al.</i> (1963) |
| Fe-2.9 wt % Si | [112] crystal, AR | 14.9 | ... | E-1 | 16 mm | Zukas <i>et al.</i> (1963) |
| Fe-3.25 wt % Si | Ann | 15.0 | ... | G-15 | Shock demagnetization | Graham (1968) |
| Iron-vanadium alloys | | | | | | |
| Fe-2 wt % V | Ann | 14.2 | 7.0 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-4 wt % V | Ann | 16.0 | 7.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-6 wt % V | Ann | 18.0 | 8.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-8 wt % V | Ann | 20.7 | 9.3 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-10 wt % V | Ann | 24.5 | 10.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-11 wt % V | Ann | 28.0 | 12.0 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-20 wt % V | Ann | ~50 | ... | E-16 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-22 wt % V | Ann | ~53 | ... | E-16 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-24 wt % V | Ann | ~55 | ... | E-16 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-26 wt % V | Ann | ~57 | ... | E-16 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-8 wt % V | Ann | ... | ... | E-16 | 6 mm to 25 mm, no overdrive observed | Loree <i>et al.</i> (1966a) |
| Iron-molybdenum alloys | | | | | | |
| Fe-1 wt % Mo | Ann | 13.1 | 6.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-2 wt % Mo | Ann | 13.5 | 6.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-3 wt % Mo | Ann | 13.9 | 6.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-8 wt % Mo | Ann | 15.5 | 7.1 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-12 wt % Mo | Ann | 16.2 | 7.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-15 wt % Mo | Ann | 15.4 | 6.7 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-20 wt % Mo | Ann | 15.5 | 6.5 | E-1 | Mixed phase composition, 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-30 wt % Mo | Ann | 14.6 | 6.0 | E-1 | Mixed phase composition, 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-40 wt % Mo | Ann | 12.9 | 5.8 | E-1 | Mixed phase composition, 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-45 wt % Mo | Ann | 13.0 | 4.4 | E-1 | Mixed phase composition, 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-1 wt % Mo, 1-1.5 wt % W | Ann | 13.8 | ... | E-1 | 25 mm, W contamination | Loree <i>et al.</i> (1966a) |
| Fe-2 wt % Mo, 1-1.5 wt % W | Ann | 14.3 | ... | E-1 | 25 mm, W contamination | Loree <i>et al.</i> (1966a) |
| Fe-3 wt % Mo, 1-1.5 wt % W | Ann | 14.5 | ... | E-1 | 25 mm, W contamination | Loree <i>et al.</i> (1966a) |
| Fe-10 wt % Mo, 1-1.5 wt % W | Ann | 16.4 | ... | E-1 | 25 mm, W contamination | Loree <i>et al.</i> (1966a) |
| Iron-cobalt alloys | | | | | | |
| Fe-2 wt % Co | Ann | 13.2 | 6.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-4 wt % Co | Ann | 13.5 | 7.1 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-8 wt % Co | Ann | 14.5 | 7.1 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-12 wt % Co | Ann | 16.5 | 7.8 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-16 wt % Co | Ann | 18.0 | 8.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-20 wt % Co | Ann | 18.7 | 8.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-25 wt % Co | Ann | 21.7 | 9.6 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-30 wt % Co | Ann | 23.0 | 9.9 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-35 wt % Co | Ann | 24.5 | 10.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-40 wt % Co | Ann | 28.0 | 11.0 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-45 wt % Co | Ann | 32.0 | 12.5 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-50 wt % Co | Ann | 36.7 | 12.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |

TABLE AI. (Continued)

| Material | Condition | Transition conditions | | Technique | Remarks | References |
|------------------------------------|------------------------------|-----------------------|-----------------|-----------|---|---|
| | | Stress (GPa) | Compression (%) | | | |
| Iron-carbon alloys | | | | | | |
| Fe-0.5 wt % C | 593 K, 2 h | 13.9 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-0.5 wt % C | 948 K, 2 h | 13.1 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-0.5 wt % C | Ann | 13.0 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-1 wt % C | 593 K, 2 h | 15.0 | 6.7 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-1 wt % C | 948 K, 2 h | 13.2 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-1 wt % C | Ann | 13.1 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-15 wt % C | 593 K, 2 h | 14.8 | 6.6 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-15 wt % C | 948 K, 2 h | 13.3 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-15 wt % C | Ann | 13.4 | 6.4 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-2 wt % C | 593 K, 2 h | 15.6 | 6.6 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-2 wt % C | 948 K, 2 h | 13.6 | 6.6 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Fe-2 wt % C | Ann | 14.7 | 5.75 | E-1 | 25 mm | Loree <i>et al.</i> (1966a) |
| Iron-nickel-chromium alloys | | | | | | |
| Fe-8.1 wt % Cr, 8.1 wt % Ni | AR | 10.0 | ... | E-1 | $\rho_0 = 7.817 \text{ Mg/m}^3$ | Fowler <i>et al.</i> (1961) |
| Fe-17.4 wt % Cr, 8.2 wt % Ni | AR | 3.0 | ... | E-1 | $\rho_0 = 7.764 \text{ Mg/m}^3$ | Fowler <i>et al.</i> (1961); see also Gust <i>et al.</i> (1970) |
| Fe-8 wt % Cr, 8 wt % Ni | AR | 10.0-9.5 | ... | E-1 | ... | Fowler <i>et al.</i> (1961) as reported by Gust <i>et al.</i> (1970) |
| Fe-12 wt % Cr, 8 wt % Ni | AR | 8.0 | ... | E-1 | ... | Fowler <i>et al.</i> (1961) as reported by Gust <i>et al.</i> (1970) |
| Fe-6 wt % Cr, 12 wt % Ni | AR | 8.5 | ... | E-1 | ... | Fowler <i>et al.</i> (1961) as reported by Gust <i>et al.</i> (1970) |
| Fe-7 wt % Cr, 12 wt % Ni | AR | 8.5 | ... | E-1 | ... | Fowler <i>et al.</i> (1961) as reported by Gust <i>et al.</i> (1970) |
| Fe-5.93 wt % Cr, 8.79 wt % Ni | 1303 K, 1 h, water quench | 11.0-10.7 | 5.24-5.13 | E-4 | $\rho_0 = 7.822 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-12.1 wt % Cr, 7.73 wt % Ni | 1303 K, 1 h, water quench | 8.7 | 4.36 | E-4 | $\rho_0 = 7.778 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-15.9 wt % Cr, 7.8 wt % Ni | 1303 K, 1 h, water quench | 8.1-7.9 | 4.19-4.12 | E-4 | $\rho_0 = 7.760 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-18.1 wt % Cr, 8.22 wt % Ni | 1303 K, 1 h, water quench | 8.1-7.0 | 4.65-3.00 | E-4 | $\rho_0 = 7.827-7.833 \text{ Mg/m}^3, \tau$ | Gust <i>et al.</i> (1970) |
| Fe-6.32 wt % Cr, 12.2 wt % Ni | 1303 K, 1 h, water quench | 9.8 | 5.49 | E-4 | $\rho_0 = 7.852 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-11.7 wt % Cr, 12.1 wt % Ni | 1303 K, 1 h, water quench | 8.2 | 4.22 | E-4 | $\rho_0 = 7.888 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-5.91 wt % Cr, 16.0 wt % Ni | 1303 K, 1 h, water quench | 7.8 | 4.14 | E-4 | $\rho_0 = 7.852 \text{ Mg/m}^3$ | Gust <i>et al.</i> (1970) |
| Fe-20 wt % Cr, 8.5 wt % Ni | 168 h, liquid N | 7.0 | ... | G-12 | $\rho_0 = 7.79 \text{ Mg/m}^3$ | Graham <i>et al.</i> (1968) |
| B. Elements | | | | | | |
| Antimony | AR | 11.4-8.6 | ... | E-1 | 10 to 25 mm, + | Minshall as reported by McQueen (1964) |
| Antimony | AR | ~9.5 | ... | E-1 | Wedge sample, optical lever | Katz <i>et al.</i> (1959) |
| Antimony | Cast | 10.8-9.1 | 16.4-13.9 | E-1 | 5 to 49 mm, +, τ | Warnes (1967) |
| Antimony | Cast | ... | ... | E-20 | Direct observation of transformation times | Breed <i>et al.</i> (1968) |