

Volume 15
Metals: Electronic Transport Phenomena

Subvolume C
Thermal Conductivity of Pure Metals and Alloys

Introductory material

1	Introduction (P.G. KLEMENS)	1
1.1	General remarks	1
1.2	List of symbols and abbreviations	4
2	Thermal conductivity of pure metals (G.K. WHITE)	6
2.1	Thermal conductivity at 273 - 300 K	6
2.2	Thermal conductivity above 50 K	10
2.3	Thermal conductivity at low temperatures	64
2.4	Lorenz ratios of metallic elements at intermediate and high temperatures	107
2.5	References for 2	118
3	Thermal conductivity of alloys	126
3.1	Introduction (P.G. KLEMENS, G. NEUER)	126
3.1.1	General remarks	126
3.1.2	Estimation method for alloys	126
3.1.3	Comments on the presentation of data	129
3.1.4	References for 3.1	131
3.2	Data at low temperatures ($T < 100$ K) (P.G. KLEMENS)	132
3.2.1	Binary alloys	132
3.2.2	References for 3.2	170
3.3	Data above 100 K (G. NEUER)	172
3.3.1	Binary alloys	172
3.3.2	References for 3.3.1	267
3.3.3	Multiple nonferrous alloys	270
3.3.4	Multiple ferrous alloys and steels	334
3.3.5	References for 3.3.3 and 3.3.4	399
4	Thermal conductivity of pure semimetals and their dilute alloys (C. UHER)	402
4.1	Introduction	402
4.2	Group V semimetals	405
4.3	Graphite	426
4.4	References for 4	445
5	The effect of pressure on the thermal transport properties of pure metals and alloys (B. SUNDQVIST)	449
5.1	Introduction	449
5.2	Data for pure metals and alloys	450
5.3	References for 5	460

Thermal Conductivity of Pure Metals and Alloys /
Wärmeleitfähigkeit von reinen Metallen und
Legierungen

Madelung, O.; White, G.K. (Eds.)

1991, XV, 460 p. 390 illus., Hardcover

ISBN: 978-3-540-53512-6