

# INDEX

Accommodation coefficient/Sublimation – 62  
Band structure/Titanium – 8  
Bloch–Grüneisen equation – 191  
Brillouin zone – 8  
Characteristic temperature/Bloch–Grüneisen function – 191  
Clapeyron–Clausius Law/Phase diagram – 61  
Classification/Alloys – 13, 14  
Composition/Alloys – 152, 170  
Compressibility/Titanium – 4, 81  
Critical Temperature/Titanium and alloys – 50–53  
Debye temperature/Titanium – 84  
Density of electronic states/Titanium – 10  
Density/Titanium – 75  
Dielectric constants/Titanium – 11  
Elasticity Constants/Titanium – 83  
Electrical resistivity/Matthiessen rule – 191  
Electrical resistivity/Multicomponent alloys – 206, 207  
Electrical resistivity/Ti–Al system – 196  
Electrical resistivity/Ti–Cr system – 202  
Electrical resistivity/Ti–Mo system – 198  
Electrical resistivity/Ti–Nb system – 204

- Electrical resistivity/Ti–Ni system – 205
- Electrical resistivity/Titanium – 189–195
- Electrical resistivity/Ti–V system – 200
- Electrical resistivity/Ti–Zr system – 203
- Electron conduction/Lorenz number – 208
- Electron conduction/Wiedemann–Franz law – 208
- Electronic configuration/Titanium – 1
- Emissivity/Alloys – 30, 42
- Emissivity/Ti–Al system – 29–31
- Emissivity/Titanium – 24–29
- Energies of excitation/Titanium – 2
- Enthalpy/Titanium – 107–120
- Entropy/Titanium – 131, 132
- Evaporaton/Langmuir method – 62
- Evaporation/Alloys – 70
- Evaporation/Knudsen method – 63
- Fermi Surface/Titanium – 9–11
- Free energy/Titanium – 131, 132
- Frequency spectrum/Phonons – 133
- Gibbs energy/Titanium – 96
- Heat Capacity/Alloys – 135–176
- Heat capacity/Titanium – 85–107
- Ideally gaseous thermodynamic function/Titanium – 185–187
- Ideal resistivity/Titanium – 190
- Integral hemispherical emissivity/Titanium – 28
- Isotopes/Titanium – 1
- Latent heat of melting/Titanium – 116–120
- Latent heat of polymorphic transformation/Multicomponent alloys – 181
- Latent heat of polymorphic transformation/Titanium – 107–115
- Lattice parameters/Titanium – 4
- Liquid state/Titanium – 80
- Lorenz function/Titanium – 208–212
- Melting heat/Multicomponent alloys – 182–184
- Melting temperature/Titanium – 59
- Normal spectral emittance/Titanium – 34
- Ohm’s law – 189
- Optical constants/Titanium – 11, 19–21
- Peltier coefficient/Peltier effect – 224
- Peltier effect – 224
- Phase diagramm/Titanium – 5
- Phonon spectrum/Titanium – 133

Photoemission spectrum/Titanium – 7  
Planck Law/Thermal radiation – 17  
Potential of ionization/Titanium – 3  
Pressure of saturation/Titanium – 64  
Pseudo-alpha alloys/Multicomponent alloys – 148–154  
Pseudo-beta alloys/Multicomponent alloys – 169–174  
*P–T* diagram/Titanium – 4, 5  
Reflectivity/Alloys – 22, 23  
Reflectivity/Titanium – 21, 22  
Richardson equation – 12  
Saturated vapor pressure/Ti–Nb system – 72  
Solid solution/Raoult law – 70  
Sound velocity/Titanium – 82  
Spectral emissivity/Titanium – 33  
Sublimation heat/Titanium – 66  
Superconducting state/Titanium – 48  
Superconductivity/Ginsburg–Landau relation – 49  
Temperature of polymorphic transformation/Titanium – 54  
Term energy/Ionization – 2, 3  
Thermal conductivity/Alloys – 28–30  
Thermal conductivity/Titanium – 215  
Thermal diffusivity/Alloys – 223, 224  
Thermal diffusivity/Titanium – 219–222  
Thermal e.m.f./Titanium – 226  
Thermal expansion/Titanium – 72  
Thermal radiation/Kirchhoff law – 19  
Thermal radiation/Oxidation films – 39–45  
Thermal radiation/Stefan–Boltzmann law – 18  
Thermal radiation/Ti–O system – 35–41  
Thermoelectric power/Alloys – 228–233  
Thermoelectric properties/Titanium – 227  
Thermoelectronic emission/Richardson–Dushman equation – 12  
Thompson coefficient – 224  
Transport properties/Titanium – 215  
Vacancies – 127  
Wave vector/Brillouin zone – 8  
Work function/Titanium – 12