Cerium Pellets

Cerium pellets deliver controlled rare-earth dosing for alloying, gas purification, glass modification, catalysts, and redox and intermetallic compound research. **SKU:** 1000039539-group
Product Code: CE00-LP-000100

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	58
Crystal structure	Face centred cubic
Electronic structure	Xe $4f^2$ $6s^2$
Valences shown	3, 4
Atomic weight(amu)	140.12
Thermal neutron absorption cross-section(Barns)	0.73
Photo-electric work function(eV)	2.9
Natural isotope distribution(Mass No./%)	136/ 0.2
Natural isotope distribution(Mass No./%)	140/ 88.4
Natural isotope distribution(Mass No./%)	142/ 11.1
Natural isotope distribution(Mass No./%)	138/ 0.3
Atomic radius - Goldschmidt(nm)	0.182
Ionisation potential(No./eV)	2/ 10.85
Ionisation potential(No./eV)	1/ 5.47
Ionisation potential(No./eV)	3/ 20.20
Ionisation potential(No./eV)	4/ 36.72

Mechanical Properties

Element	Value
Material condition	Polycrystalline
Material condition	Cast
Poisson's ratio	0.248
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Bulk modulus(GPa)	24.4
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Element	Value
Tensile modulus(GPa)	33.5
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Hardness - Vickers(kgf mm?²)	25-30
Tensile strength(MPa)	102
Yield strength(MPa)	91

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	85.4@20°C
Temperature coefficient(K?¹)	0.0087@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	1.14

Physical Properties

Element	Value
Boiling point(C)	3426
Density(gcm?³)	6.75@20°C

Thermal Properties

Element	Value
Melting point(C)	799
Latent heat of evaporation(J g?¹)	2680
Latent heat of fusion(J g?¹)	37.3
Specific heat(J K?¹ kg?¹)	205@25°C
Thermal conductivity(W m?¹ K?¹)	11.3@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	8@0-100°C