Lutetium Powder

Formula: Lu
Percentage Purity: 99.9%
Maximum Particle Size: 500µm
Weight: 10g
CAS Number: 7439-94-3
UOM Code: 726-876-35
SKU: 1000126017-group
Product Code: LU00-PD-000110

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	71
Crystal structure	Hexagonal close packed
Electronic structure	Xe $4f^1$? $5d^1$ $6s^2$
Valences shown	3
Atomic weight(amu)	174.967
Thermal neutron absorption cross-section(Barns)	75
Photo-electric work function(eV)	3.3
Natural isotope distribution(Mass No./%)	175/ 97.4
Natural isotope distribution(Mass No./%)	176/ 2.6
Atomic radius - Goldschmidt(nm)	0.173
Ionisation potential(No./eV)	1/ 5.43
Ionisation potential(No./eV)	2/ 13.9

Mechanical Properties

Element	Value
Material condition	Polycrystalline
Poisson's ratio	0.223
Bulk modulus(GPa)	42
Tensile modulus(GPa)	84
Hardness - Vickers(kgf mm?^{2})	85

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	68@20@20°C
Superconductivity critical temperature(K)	0.1
Temperature coefficient(K?¹)	0.0024@0-100°C

Physical Properties

Element	Value
Boiling point(C)	3395
Density(gcm?³)	9.842@20°C

Thermal Properties

Element	Value
Melting point(C)	1663
Latent heat of evaporation(J g?¹)	2155
Latent heat of fusion(J g?¹)	110
Specific heat(J K?¹ kg?¹)	155@25°C
Thermal conductivity(W m?¹ K?¹)	16.4@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	12.5@0-400°C