Lanthanum Sputtering Target

Formula: La
Percentage Purity: 99%
Thickness: 1mm
Diameter: 75mm
CAS Number: 7439-91-0
UOM Code: 386-184-44
SKU: 1000157643-group
Product Code: LA00-ST-000100

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	57
Crystal structure	Hexagonal close packed/Face centred cubic
Electronic structure	Xe $5d^1$ $6s^2$
Valences shown	3
Atomic weight(amu)	138.9055
Thermal neutron absorption cross-section(Barns)	8.9
Photo-electric work function(eV)	3.5
Natural isotope distribution(Mass No./%)	139/ 99.91
Natural isotope distribution(Mass No./%)	138/ 0.09
Atomic radius - Goldschmidt(nm)	0.187
Ionisation potential(No./eV)	3/ 19.18
Ionisation potential(No./eV)	1/ 5.58
Ionisation potential(No./eV)	2/ 11.06

Mechanical Properties

Element	Value
Material condition	Polycrystalline
Poisson's ratio	0.28
Bulk modulus(GPa)	24.8
Tensile modulus(GPa)	37.9
Hardness - Vickers(kgf mm?^{2})	40

Element	Value
Tensile strength(MPa)	131
Yield strength(MPa)	124

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	57@20@20°C
Superconductivity critical temperature(K)	4.88
Temperature coefficient(K?¹)	0.00218@0-100°C

Physical Properties

Element	Value
Boiling point(C)	3457
Density(gcm?³)	6.174@20°C

Thermal Properties

Element	Value
Melting point(C)	921
Latent heat of evaporation(J g?¹)	2897
Latent heat of fusion(J g?¹)	60.2
Specific heat(J K?¹ kg?¹)	197@25°C
Thermal conductivity(W m?¹ K?¹)	13.4@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	4.9@0-100°C