

Lawrencium

Lr

General Information

Discovery

Lawrencium was discovered by A. Ghiorso and co-workers in 1961 in California, USA.

Appearance

Lawrencium is a radioactive metal. Only a few atoms have ever been made, so its appearance is unknown.

Source

Lawrencium is produced by bombarding californium with boron nuclei.

Uses

Lawrencium has no uses outside research.

Biological Role

Lawrencium has no known biological role. It is toxic due to its radioactivity.

Physical Information

Atomic Number	103
Relative Atomic Mass ($^{12}\text{C}=12.000$)	260 (radioactive)
Melting Point/K	Not available
Boiling Point/K	Not available
Density/ kg m^{-3}	Not available
Ground State Electron Configuration	$[\text{Rn}]5f^{14}6d^17s^2$
Electron Affinity (M-M $^-$)/ kJ mol^{-1}	Not available

Key Isotopes

Nuclide	^{260}Lr
Atomic mass	
Natural abundance	0%
Half-life	3 mins

Ionisation Energies/ kJ mol^{-1}

M - M $^+$	Not applicable
M $^+$ - M $^{2+}$	
M $^{2+}$ - M $^{3+}$	
M $^{3+}$ - M $^{4+}$	
M $^{4+}$ - M $^{5+}$	
M $^{5+}$ - M $^{6+}$	
M $^{6+}$ - M $^{7+}$	
M $^{7+}$ - M $^{8+}$	
M $^{8+}$ - M $^{9+}$	
M $^{9+}$ - M $^{10+}$	

Other Information

Enthalpy of Fusion/ kJ mol^{-1}	Not available
Enthalpy of Vaporisation/ kJ mol^{-1}	Not available

Oxidation States

Lr^{+3}