

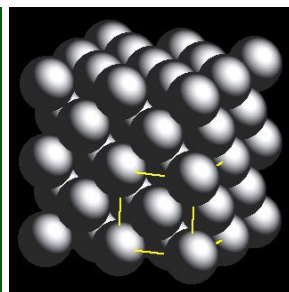
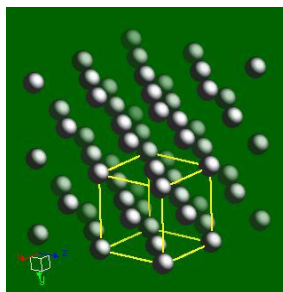
82 207 Pb

Lead

Density = 11.34 g/cm^3
Melting point = $327.5 \text{ }^\circ\text{C}$
Boiling point = $1740 \text{ }^\circ\text{C}$
Electronegativity = 1.6
Ionization energy = 715.6 kJ/mol
Electron shell:
[Xe]4f¹⁴5d¹⁰6s²6p²
Oxidation states: **+2, +4**
Abundance on Earth: 2.00×10^{-3}
Isotopes: ²⁰⁴Pb, ²⁰⁶Pb, ²⁰⁷Pb,
²⁰⁸Pb
Cost: 1.5\$/100g



Crystal structure: cubic close-packed;
space group Fm-3m



- The Origin of the symbol Pb is the Latin word “plumbum”, meaning “liquid silver”.
- Discovered: Known since the ancient times.
- Description: Lead is a bluish-white lustrous metal. It is very soft, highly malleable, ductile, and a relatively poor conductor of electricity. It is very resistant to corrosion but tarnishes upon exposure to air.
- Uses: Batteries, cable covering, plumbing, and ammunitions. The metal is a very effective sound and vibration absorber. Lead is also used to surround X-ray equipment and nuclear reactors. Was used extensively in paint until it was drastically reduced due to health hazards.
- Lead is one of the elements which has an alchemical symbol (alchemy is an ancient pursuit concerned with, for instance, the transformation of other metals into gold).
- Lead is toxic by ingestion and inhalation. However most ingested lead passes through the body without being absorbed.