

Lithium Element

Lithium, symbol Li and atomic number 3, is a soft, silver-white alkali metal. It is the lightest metal and least dense solid element under standard conditions.

Overview

- Latin name: Lithium - ['lɪθiəm']
- English name: Lithium - ['lɪθiəm]
- Year discovered: 1817
- CAS Number: CAS7439-93-2
- Electron shell: K2-L1-MO-NO-OO-PO-QO-RO

Properties

- Atomic number: 3
- Atomic weight (Relative atomic mass): 6.941765353712 (g/mol)
- Density: 0.534 (g/cm³)
- Melting point: 180.5°C = 356.9°F = 453.65K
- Boiling point: 1330.0°C = 2426.0°F = 1603.15K
- Valence electrons: 1
- Block: s - block
- Period: 2
- Group: IA
- Phase: solid
- Electron configuration: 1s² 2s¹
- Ion charge: Li⁺
- Standard electrode potentials: Li⁺ + e → Li | E₀ = -3.045 Volt
- The ionization potential of an atom: 5.392 (eV)

- Atomic radius: 167 (pm)
- Covalent radius: 130 (pm)
- Van der Waals radius: 182 (pm)
- Electrical conductivity: 10775862.0689655 (S/m)
- Electrical type: Conductor
- Magnetic type: Paramagnetism
- Volume magnetic susceptibility: $1.37 \cdot 10^{-9}$
- Mass magnetic susceptibility: $2.56 \cdot 10^{-8}$
- Molar magnetic susceptibility: $1.78 \cdot 10^{-10}$ (m³/mol)
- Resistivity: $9.28 \cdot 10^{-8}$ (Ω · m)
- Electronegativity: 0.98
- Electron affinity: 59.6326 kJ/mole

Prevalence

- The universe contains lithium at a concentration of 6×10^{-7} percent.
- The Sun contains lithium at a very small concentration of 6 times 10 to the power of negative 9 percent.
- The oceans have lithium at a concentration of 1.8×10^{-5} percent.
- The human body contains lithium at a concentration of approximately $9.98774237 \times 10^{-6}$ percent.
- The Earth's crust contains lithium, which makes up 0.002% of it.
- Meteorites contain a very small amount of lithium, specifically 0.00017 percent.