

Sodium element

Sodium is a soft, silver-white metal with the symbol Na and atomic number 11. It is highly reactive, belonging to the alkali metals group in the Periodic table. Like other elements in this group, sodium has one outer electron it easily donates, forming a positively charged cation.

Overview

- Latin name: Natrium - ['nɛtrɪəm']
- English name: Sodium - ['səʊdiəm]
- Year discovered: 1807
- CAS Number: CAS7440-23-5
- Electron shell: K2-L8-M1-NO-OO-PO-QO-RO

Properties

- Atomic number: 11
- Atomic weight (Relative atomic mass): 22.9897692819791 (g/mol)
- Density: 0.968 (g/cm³)
- Melting point: 97.794°C = 208.03°F = 370.94K
- Boiling point: 882.94°C = 1621.29°F = 1156.09K
- Valence electrons: 1
- Block: s - block
- Period: 3
- Group: IA
- Phase : solid
- Electron configuration: [Ne] 3s¹

- $1s^2 2s^2 2p^6 3s^1$
- Ion charge: Na^{1+}
- Standard electrode potentials: $\text{Na}^+ + e \rightarrow \text{Na} \quad | \quad E_0 = -2.714 \text{ Volt}$
- Volume magnetic susceptibility: $8.6 \cdot 10^{-6}$
- Mass magnetic susceptibility: $8.8 \cdot 10^{-9}$
- Molar magnetic susceptibility: $2 \cdot 10^{-10} \text{ (m}^3\text{/mol)}$
- Resistivity: $4.77 \cdot 10^{-8} \text{ (}\Omega \cdot \text{m)}$
- Electronegativity: 0.93
- Electron affinity: 52.867 kJ/mole

Prevalence

- Universe contains "Sodium" at the rate of: 0.002 %
- Sun contains "Sodium" at the rate of: 0.004 %
- Oceans contain "Sodium" at the rate of: 1.1 %
- Human body contains "Sodium" at the rate of: 0.14268203385251
- The Earth's crust consists of "Sodium" at the rate of: 2.36 %
- Meteorites consist of "Sodium" at the rate of: 0.55 %