

Potassium (K)

Element classification: Alkali metal

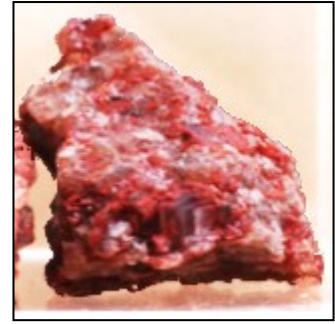
No. of isotopes: 25 (2 stable, 3 natural)

Typical elemental concentrations:

Soil (dry): <0.1-40 g/kg [1]

Sea water: 0.4 g/l [2]

Fresh water: 2-3 µg/l [3]



Behavior in the Environment

- ◆ Reacts readily with water creating hydrophilic compounds
- ◆ Macronutrient – required by most/all organisms for basic biological function
- ◆ Industrially extracted from potash

Potassium

radioecology

Key sources

- ◆ Primordial isotope—originating from or before the formation of the Earth

Why is it of interest?

- ◆ The largest source of natural radioactivity in organisms
- ◆ A typical human contains approx. ~60Bq/kg of ⁴⁰K
- ◆ A natural ⁴⁰K peak will occur in many (all biological) gamma spectrometry readings

For more information ...

