Europium (Eu)

Atomic number: 63

Atomic mass: 151.964

Description: Europium is named after Europe

Discovered by: Eugene- Anatole Demarcay in 1901

Properties:

Melting point: 1095K Boiling point: 1802K

Density: 5.24 g/cm^3 State: Solid

Group: Lanthanides Period: 6 Block: f

Electronic Configuration: [Xe] $4f^7 6s^2$

Isotopes: ^{153}Eu

Appearance: A soft silvery metal that tarnishes quickly and reacts with water.

Uses:

1) It is used in printing of euro banknotes. It glows red UV light, and forgeries can be detected by lack of his red glow.

2) Low energy bulbs contain a little europium to give natural light, by balancing with little red (warm) light.

3) It is excellent at absorbing neutrons, making it valuable in control rods for nuclear reactors.

4) Europium- doped plastic has been used as a laser material. It is also used in making thin super conducting alloys.

Source: *www.rsc.org*