

# Terbium (Tb)

Atomic number: 65

Atomic mass: 158.925

Description: It was named after Ytterby, Sweden

Discovered by: Carl Gustav Mosander in 1843.

## Properties:

Melting point: 1632K

Boiling Point: 3503K

Density: 8.23 g/cm<sup>3</sup>

State: Solid

Group: Lanthanides    Period: 6    Block: f

Electronic Configuration: 4f<sup>9</sup>6s<sup>2</sup>

Isotopes: <sup>159</sup>Tb

Appearance: A soft, silvery metal

## Uses:

- 1) Terbium is used to dope calcium fluoride, calcium tungstate and strontium molybdate, all used in solid state device.
- 2) It is also used in low energy lightbulbs and mercury lamps.
- 3) It has been used to improve the safety of medical x-rays by allowing the same quality image to be produced with a much shorter exposure time.
- 4) Terbium salts are used in laser devices.
- 5) An alloy of Terbium, Dysprosium and iron lengthens and shortens in a magnetic field. This effect forms the basis of loudspeaker that sit on flat surface such as windowpane, which then acts as speaker.

Source: [www.rsc.org](http://www.rsc.org)

