

# Indium (In)

Atomic mass: 49

Atomic mass: 114.818

Description: Its name comes from the Latin 'Indicium', meaning violet or indigo.

Discovered by: Ferdinand Reich and Hieronymous Richter in 1863.

## Properties:

Melting point: 429.75K

Boiling point: 2300K

Density: 7.31 g/cm<sup>3</sup>

State: Solid

Group: 13

Period: 5

Block: p

Electronic Configuration: [Kr]4d<sup>10</sup>5s<sup>2</sup>5p<sup>1</sup>

Isotopes: <sup>115</sup>In

Appearance: A soft, silvery metal that is stable in air and water.

## Uses:

- 1) Most Indium is used to make indium tin oxide (ITO), which is an important part of touch screen, flatscreen TVs and solar panels. This is because it conducts electricity, bonds strongly to glass and is transparent.
- 2) Indium nitride, phosphide and antimonide are semiconductors used in transistors and microchips.
- 3) Indium metal sticks to glass and can be used to give a mirror finish to windows of tall buildings, and as a protective film of welder's goggles. It has also been used to coat ball bearings in Formula1 racing cars because of its low friction.
- 4) An indium alloy has been used for fire sprinkler system in shops and warehouse because of its low melting point.

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



