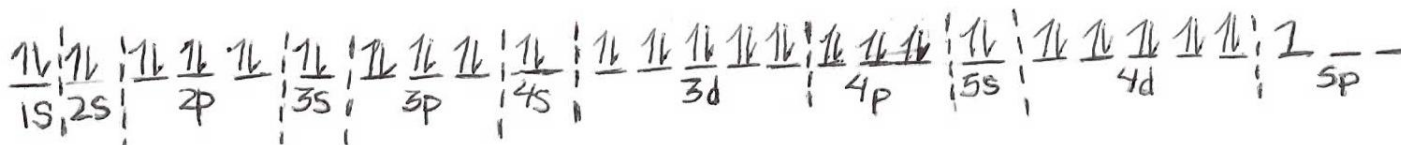
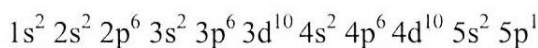


Element Yearbook: Biographical WorksheetElement Name: Indium Element Symbol: In Atomic Number: 49 Group name/number: Group IIAAtomic Mass (to nearest thousandth): 114.818 Number of protons: 49Number of neutrons: 66 Number of electrons: 49 Number of valence electrons: 3

Electron configuration:

Orbital filling diagram*Final electron configuration:***HISTORY**Discovered by: Ferdinand Reich and Hieronymus Theodor Year discovered: 1863Where discovered: Germany Derivation of name/symbol: Latin, Indicium= indigo**PHYSICAL AND CHEMICAL CHARACTERISTICS**Phase at room temperature: solid Density at room temperature (g/cm^3): 7.31 g/cm^3 Melting Point (K, $^{\circ}\text{C}$, $^{\circ}\text{F}$): 429.76 K, 156.61 $^{\circ}\text{C}$, and 313.898 $^{\circ}\text{F}$ Boiling Point (K, $^{\circ}\text{C}$, $^{\circ}\text{F}$): 2345 K, 2073 $^{\circ}\text{C}$, and 3762 $^{\circ}\text{F}$ Color: Silvery Grey Odor: No Odor Oxidation states: 3Ionic or covalent bonding: ionicIonization Energy (first) (kJ/mol): 558 kJ/molElectronegativity (Pauling): 1.78

Reactivity with oxygen, water, acids or bases:

Has a mild reaction with air, but does not react with acids or bases.

Name: Ashley Agosa

CURRENT INFORMATION

Where found (specific minerals or sources/specific countries):

Reich and Richter were looking for traces of thallium in samples of zinc ores when an indigo line had appeared in the samples spectrum. Indium can be found in iron, copper and lead ores as a by-product. Canada produce most of the world's supply of indium.

Uses:

Indium is used to coat bearing of high speed motors, to dope germanium to make transistors, and used to make some electrical components. Also, it is used to make low melting alloys.

Toxicity/hazards:

Non-toxic when orally and physically exposed but if internally exposed may cause injury.

Abundance:

Estimated crustal abundance: 2.5×10^{-1} mg/kg

Estimated oceanic abundance: 2×10^{-2} mg/L

Sources used to gather this information:

- 1) www.webelements.com
- 2) www.chemicalelements.com
- 3) <http://cameochemicals.noaa.gov>