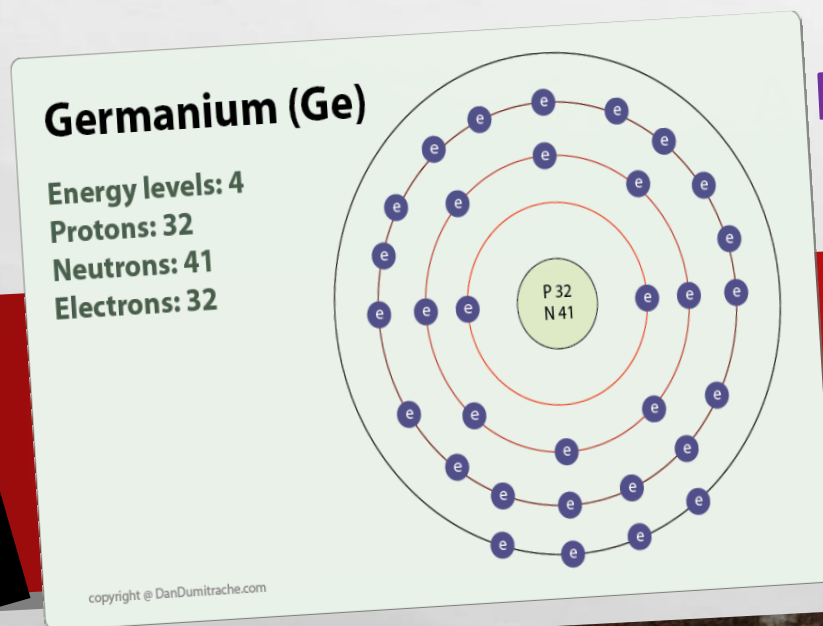
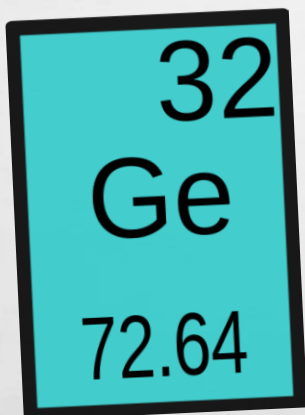


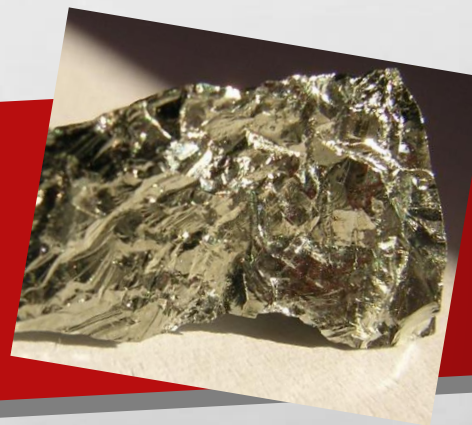
ELEMENTO-PEDIA

GERMANIUM



PRESENTATION BY-T SANJANA

XI C



INTERESTING FACTS

85% of the world's consumption of germanium is in fibre optics.

Germanium did not become a useful element until 1945, when researchers discovered its excellent semi-conducting properties.

It is a metalloid .

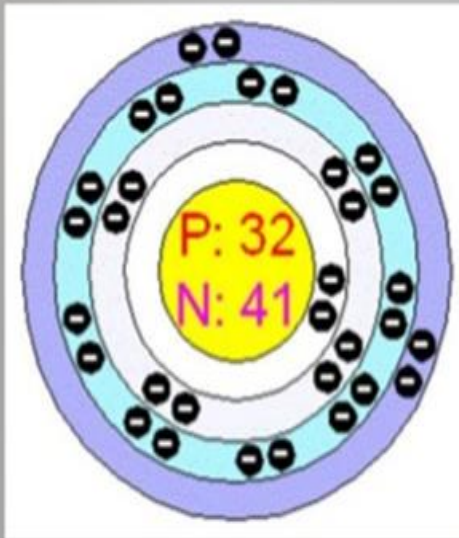
Germanium is one of the few elements that expands when it freezes, like water

The name, Germanium, derives from the latin word 'germania'(Germany)and was given to the element by Winkler.

USES OF GERMANIUM

- BEING A SEMICONDUCTOR, IT HAS PROPERTIES SIMILAR TO TIN AND SILICON AND SO, GERMANIUM IS USED BY THE SEMICONDUCTOR INDUSTRIES ON A REGULAR BASIS.
- IT IS USED IN MANUFACTURE OF WIDE ANGLE CAMERA LENSES.
- THE ELEMENT IS USED IN TRANSISTORS.
- GERMANIUM IS ONE OF THE ELEMENTS ON INSIDE OF FLUORESCENT BULBS (USED AS A PHOSPHOR).
- IT IS ALSO ADDED TO ALLOYS.

PROPERTIES



- ❖ Element Classification: Semi-metallic
- ❖ Density (g/cc): 5.323
- ❖ Melting Point (K): 1210.6
- ❖ Boiling Point (K): 3103
- ❖ Appearance: grayish-white metal
- ❖ Atomic Radius (pm): 137
- ❖ Atomic Volume (cc/mol): 13.6
- ❖ Covalent Radius (pm): 122
- ❖ Ionic Radius: 53 (+4e) 73 (+2e)

Germanium is used in solar panels to increase efficiency.



The background of the image is a soft-focus photograph of numerous small, five-petaled pink flowers. The flowers are scattered across the frame, with some in sharp focus in the foreground and others blurred in the background, creating a dreamy, floral atmosphere. The petals have a vibrant pink hue, and the centers of some flowers show darker, reddish-brown stamens.

Thank
You