

Element osmium essay



**ASSIGN
BUSTER**

1. Give the elements English and elemental symbol, if the elemental symbol is different then would be expected in English, such as tungsten W, describe why it has that symbol

- The element name is osmium and its elemental symbol is Os. Its atomic mass is 190. 23

2. What is the elements atomic number, what class of elements does it fall into

- The atomic number for osmium is 76. Osmium falls into the transition metal group.

3. Are there any common isotopes of this element?

- Yes

4. Describe when, by whom and how the element was discovered

- Osmium was discovered in 1803 in England by Smithson Tennant. He discovered osmium in residue remaining when crude platinum was dissolved in aqua regia.

5. Describe the element's physical properties

- Melting point; 3306 [or 3033 °C (5491 °F)] K

- Boiling point: 5285 [or 5012 °C (9054 °F)] K

- Liquid range: 1979 K

- Critical temperature: no data K

- Superconduction temperature: 0.66 [or -272.49 °C (-458.48 °F)] K

6. Is the element in any common items we are familiar with?

- Fountain pen points

- Jewelry

- Compass needle

7. Describe the element's chemical properties

- Dense metal

- Unaffected by water and acid

8. What are the common uses of the element?

- Alloyed with other metals

- Phonograph needles

- Light filaments

- Instrument pivots

- Electrical contacts

9. Where does the element exist in nature

- It is found in nature as an alloy, mostly in platinum ores; its alloys with platinum, iridium, and other platinum group metals.