

H.W

HOME ASSIGNMENT-1

1. Mention 5 characteristics of Element.
2. Why Carbon Dioxide is a compound whereas carbon is an element?

Answers:-

1. 5 characteristics of Element are:-
 - They are homogeneous in nature.
 - They cannot be broken into simpler substances.
 - They have definite Melting Point and Boiling Point

- They can be represented symbolically. Eg: ~~Fe~~ Irons
~~Fe~~ (Fe)
- They occur in three states of matter. Eg:
 (Solids Fe; liquid-Hg; Gas-Ne).

2. As we know that, elements are pure substances which are composed of only one type of atoms. Hence, as Carbon (C) is only one type of atom, so it is considered to be an element. ~~whereas~~ On the other hand, when two or more elements chemically combine with each other with a definite ratio by mass, they form a compound. Hence forth, Carbon dioxide i.e. " CO_2 " has ~~two~~ ^{two distinct} elements → 'C' and ' O_2 ' i.e. ^{one} ~~only~~ ₁ Carbon atom and 2 atoms of Oxygen. ~~So~~ Thus, Carbon dioxide is a compound, whereas carbon is an element.