## Answer on Question #68951, Physics / Other

Cartisen is a molecular substance in which there are 21 atoms of carbon of each molecule. The mass percentage of carbon is 69.98%, then what is its molecular mass?

**Solution:**

Mass % of an element = mass of the element in the compound /molar mass of the compound.

Mass of carbon in this compound =

= 12.017 g/mol (atomic mass )×21(atoms of carbon )=252.2247 g/mol

According to question we have

$$69.98\ \% = \frac{252.2247\ g/mol}{molar\ mass} \times 100\ \%$$

So,

$$Molar\ mass\ = \frac{252.2247\ g/mol}{69.98\ \%} \times 100\ \% = 360.42\ g/mol$$

**Answer:** $360.42\ g/mol$