Answer on question #61914, Chemistry / General Chemistry

What is the mass percentage of carbon in the compound $C_6H_6O_2$.

Solution:

Hydroquinone is $C_6H_6O_2$.

1) Find the molar mass of hydroquinone ($C_6H_6O_2$)

M_r = 12*6+1*6+16*2=110 (g/moll)

2) Find the mass fraction of carbon (C) in the molecule $C_6H_6O_2$

m(C) = atomic mass number of atoms of 12 * 6= 72 (g)

3) W% = m (C) / M_r ($C_6H_6O_2$) * 100% = 72 (g) / 110 (g/mol) * 100% = 65.5%

Mass fraction of carbon in the molecule hydroquinone – 65.5%

Answer: 65.5%