Answer on Question #73064, Chemistry / General Chemistry

Suppose that you have a 8.58 mass % solution of potassium iodide, KI, in water. What mass of solution in grams contains 10.0 g of KI?

Solution

w = $\frac{m_{comp}}{m_{sol}}$ × 100%, where w – mass fraction, m_{comp} – mass of the compound dissolved; m_{sol} – mass of the solution.

$$m_{sol} = \frac{m_{comp}}{w} \times 100\%,$$
$$m_{sol} = \frac{10}{8.58} \times 100\% = 116.6 \text{ (g)}$$

Answer

116.6 g of 8.58 mass % solution of potassium iodide contain 10.0 g of KI.

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