

Answer on the question #47453, Chemistry, Other

Question:

Mass of test tube & 250mL beaker 130.729g. Mass of test tube compound A 131.756g. Heat test tube and compound A. Mass of test tube 250 mL beaker and compound B 131.369g Add 2mL concentrated nitric acid to test tube and heat. Add 2mL of HNO₃ and heat. Mass of test tube 250mL beaker compound C (CuO) 131.071g. Mass of test tube 250mL beaker and copper 130.997g.

Using your experimental data calculate: mass of copper in compounds A,B,C. Mass of other element in compound A and B. Mass of oxygen in compound C.

Answer:

Mass of the compound A:

$$131.75 - 130.729 = 1.46 \text{ g}$$

$$\text{Mass of compound B: } 131.369 - 130.729 = 0.64 \text{ g}$$

$$\text{Mass of compound C: } 131.071 - 130.729 = 0.342 \text{ g}$$

$$\text{Mass of cooper: } 130.997 - 130.729 = 0.268 \text{ g}$$

$$\text{Mass of other compound: in A: } 1.46 - 0.268 = 1.192 \text{ g}$$

$$\text{In B: } 0.64 - 0.268 = 0.372 \text{ g}$$

$$\text{Mass of oxygen in C: } 0.342 - 0.268 = 0.074 \text{ g}$$