Checking Active Mass With Two Measurements

Scoring guide · one credit per question · review written work against each rubric

Checking Active Mass With Two Measurements

Question 1

Choice (2)

Two moles of H^+ are used per mole of $CaCO_3$. The result is 0.060/2 = 0.030 mol.

Question 2

The sample contains 0.030 × 100.0 = 3.0 g $CaCO_3$. Subtract from 4.00 g to obtain 1.0 g of filler.

Question 3

The acid record shows 0.030 mol reacted, which should produce 0.030 mol CO_2. Only 0.020 mol reached the collector, so that reading alone underestimates the amount that reacted.

Question 4

The collection should give 0.030 mol CO_2. The filler estimate stays 1.0 g because the acid measurement and sample mass are unchanged.