Accounting for Solids After a Model Filtration

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

Accounting for Solids After a Model Filtration

Question 1

For each millimole of either starting compound, the model forms 2 mmol of sodium chloride. The amount is 1.00 × 2 = 2.00 mmol.

Question 2

Choice (2)

Sodium chloride is dissolved and passes through with the clear liquid.

Question 3

The filter holds 1.00 mmol of $CaCO_3$, giving 0.00100 mol × 100.1 g/mol ≈ 0.100 g. The clear liquid gives 0.00200 mol × 58.4 g/mol ≈ 0.117 g NaCl.

Question 4

The liquid leaves sodium chloride after the water is removed. Before drying that salt was dissolved, which can leave the liquid clear even though it contains a product.