Tracking Copper Under a Silver Deposit

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

Tracking Copper Under a Silver Deposit

Question 1

Choice (2)

Copper changes from oxidation number 0 to +2 by losing two electrons.

Question 2

A copper atom releases two electrons. Each Ag^+ takes one electron to become a neutral silver atom, so two silver ions account for both electrons.

Question 3

Copper lost is 0.0100 mol × 63.5 g/mol = 0.635 g. The equation gives 0.0200 mol Ag deposited, or 2.158 g. The final mass is 10.00 − 0.635 + 2.158 = 11.52 g to the nearest hundredth.

Question 4

The strip loses copper while gaining more mass as deposited silver. The net increase combines both changes. Copper can leave even though the total mass rises.