Tracking Labeled Salt in a Saturated Bath

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

Tracking Labeled Salt in a Saturated Bath

Question 1

Choice (1)

The label began in solution only. Its presence in the crystals shows that some of the labeled chloride joined the solid.

Question 2

Some ions enter the solid as others dissolve. Equal overall rates of dissolving and forming solid keep both amounts constant. Label in the solid provides evidence of exchange even though its total mass is unchanged.

Question 3

Adding water lowers the dissolved concentration below saturation. Some solid dissolves until the saturation concentration is restored, leaving less undissolved salt.

Question 4

The saturation concentration is the same for the same salt and temperature. The solution now has more volume, so it can contain more dissolved salt at the same concentration.