AP Chemistry Daily Videos
3.8 Representations of Solutions

Video #1

Crystal of NaCl in water

Ions hydrated in solution
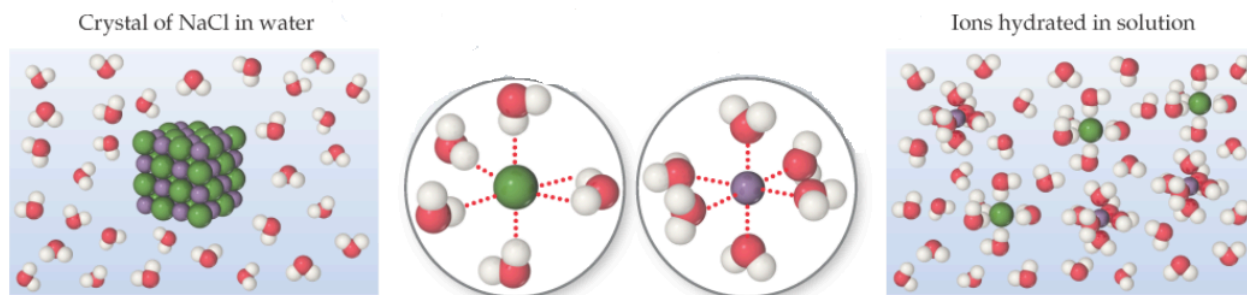
1. Study the image above. Based on size, identify the green and purple atoms. Explain your reasoning.

2. In the image above, identify the type of IMF shown in the center images. Draw any dipoles, if any.

3. Based on the orientation of the water molecules, identify the green and purple atoms. Explain your reasoning. Does your conclusion match your answer in #1?

⏸ 4. Pause the video and answer the question to the right.

2:17

Multiple-Choice Question (Excerpt)

M^+ is an unknown metal cation with a +1 charge. A student dissolves the chloride of the unknown metal, MCl, in enough water to make 100.0 mL of solution. The student then mixes the solution with excess $AgNO_3$ solution, causing $AgCl$ to precipitate. The student collects the precipitate by filtration, dries it, and records the data.

Make a drawing that represents the $AgNO_3$ solution before the reaction occurs.

5. Evaluate your response to the answer discussed in the video. How did you do?

Ⅱ

3:45

$$Ag^+(aq) + Cl^-(aq) \rightleftarrows AgCl(s)$$
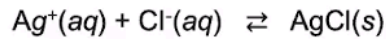
A student mixes dilute $AgNO_3(aq)$ with <u>excess</u> $NaCl(aq)$ to form $AgCl(s)$, as represented by the net ionic equation above. Which of the diagrams below best represents the ions that are present in significant concentrations in the solution? ($AgCl$ does not readily dissolve in water.)

A

B

C

D
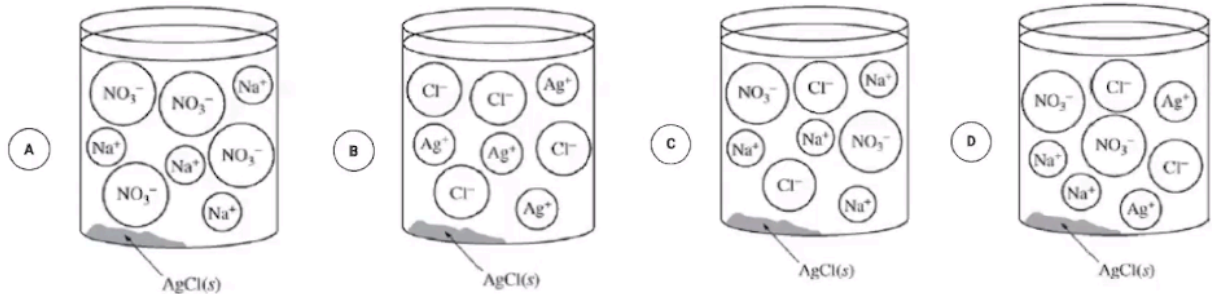
6. Answer the MC question above with an explanation for your choice.

7. Evaluate your response based on the video's explanation. What did you overlook if anything?

Ⅱ

5:31

8. Include your drawing for the LiCl problem below.

9. According to the scoring guidelines presented, what would you score yourself? How can you improve your score?

10. What advice did the teacher give to you about completing particulate diagrams?