

Colorful Salting Out

Discussion Questions

1. Draw a diagram of the bottle and its contents as presented by your instructor.
2. Isopropyl alcohol and saturated sodium chloride solution have different densities. One has a density of 0.785 g/mL and the other 1.2 g/mL. How can you infer from your diagram which is denser?
3. Predict what will happen after the marker is added to the bottle.
4. Predict what will happen if the bottle is shaken and set back down.
5. Draw diagrams of the bottle immediately after it was shaken and long after the bottle was shaken.
6. Write a possible explanation for what happened when the bottle was shaken and set back down.
7. (Optional) Draw separate molecular diagrams of how sodium chloride and isopropyl alcohol would interact in water. Identify the types of intermolecular attractions within each diagram.
8. (Optional) Based on your previous answers, which colored pigment do you think is the most polar.