

Practice

How much 1.8 M solution do you need to make 500 mL of a 0.50 M solution?

Apr 4-8:30 AM

Practice

How much 1.8 M solution do you need to make 500 mL of a 0.50 M solution?

$$\begin{aligned}
 M_1 &= 1.8\text{M} & 1.8 \cdot V_1 &= 0.5 \cdot 500 \\
 V_1 &= x\text{mL} & 1.8 \cdot V_1 &= 250 \\
 M_2 &= 0.5\text{M} & \frac{1.8}{1.8} & \frac{250}{1.8} \\
 V_2 &= 500\text{mL} & & \\
 & & \boxed{V_1 = 139\text{mL}} &
 \end{aligned}$$

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Practice

Which of the following types of compounds will dissolve in water? Explain.

- a. ionic
- b. nonpolar covalent
- c. polar covalent

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Practice

Which of the following types of compounds will dissolve in water? Explain.

- a. ionic *will dissolve in H₂O*
- b. nonpolar covalent *will not dissolve in H₂O*
- c. polar covalent *will dissolve in H₂O*

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Practice

How many grams do you need of NaCl to make 200 mL of 0.15 M solution?

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Practice

How many grams do you need of NaCl to make 200 mL of 0.15 M solution?

$$\begin{aligned}
 M &= \frac{\text{mol}}{\text{L}} & 200\text{mL} \times \frac{1\text{L}}{1000\text{mL}} & \\
 & & & = 0.200\text{L} \\
 0.15\text{M} &= \frac{x\text{mol}}{0.200\text{L}} & & = 0.03\text{mol} \\
 0.03\text{mol NaCl} \times \frac{58\text{g NaCl}}{1\text{mol NaCl}} &= \boxed{1.74\text{g NaCl}}
 \end{aligned}$$

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Review

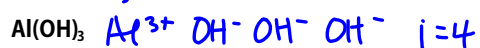
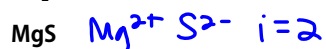
What is the dissociation factor for the following compounds?



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Review

What is the dissociation factor for the following compounds?



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Review

How would you determine if a solution is saturated, unsaturated and super saturated?

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Review

How would you determine if a solution is saturated, unsaturated and super saturated?

To determine you would add a crystal ? observe:

unsat: crystal dissolves

sat: crystal is unchanged

Supersat: crystals grow

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Attachments

solutionSalt.zip

clipboard(20615).galleryitem