

Ionization of a Triprotic Acid

Use with Chapter 18,
Section 18.1

Ionization of a Triprotic Acid

Use with Chapter 18,
Section 18.1

1. H_3AsO_4 is a triprotic acid. What does the term *triprotic* mean?

2. What do all three of these equations have in common?

3. What property of water causes the ionization of H_3AsO_4 in aqueous solution?

4. Which step would require the least energy? Explain.

5. Why are double arrows used in the questions shown?

6. Write a similar set of equations for the complete ionization of phosphoric acid (H_3PO_4), which is another triprotic acid.

7. The formula for citric acid is $\text{H}_3\text{C}_6\text{H}_5\text{O}_7$. How many steps would occur in the complete ionization of citric acid? Explain.
