

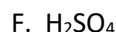
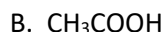
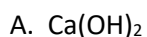
3. What is the Arrhenius definition of an acid and a base?

4. How are acids and bases defined by the Bronstad-Lowry theory?

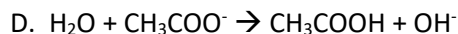
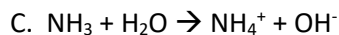
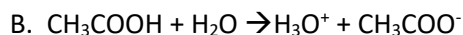
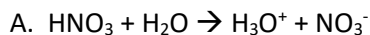
6. How are the properties of acids and bases similar? How are they different? (do a quick Google search for similarities and differences between acids and bases)

8. Write a chemical equation for the ionization of HNO_3 in water and for the reaction of CO_3^{2-} with water. Identify the hydrogen-ion donor and the hydrogen-ion acceptor in each equation. Then, label the conjugate acid-base pair in the two equations. (We solve this just like we do our Arrhenius analysis).

53. Classify each compound as an Arrhenius acid or an Arrhenius base:

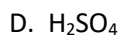


56. Identify each reactant in the following equations as a hydrogen-ion donor (acid) or a hydrogen-ion acceptor (base):

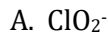


57. Label the conjugate acid-base pairs for each equation in question 56.

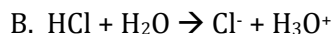
84. Write the formula and name of the conjugate base of each Bronstad-Lowry acid:



85. Write the formula and name of the conjugate acid of each Bronstad-Lowry base:



88. Use the Bronstad-Lowry and Lewis definitions of acids and bases to identify each **reactant** as an acid or a base:



89. Write the formula for the conjugate base of each of the following acids:

