CONCEPT: BRONSTED-LOWRY ACIDS AND BASES

In 1923, Johannes Brønsted and Thomas Lowry developed a new set of definitions for acids and bases.

According to the Bronsted-Lowry definition, acids are considered _____ and bases are considered _____ .

- Unlike Arrhenius acids and bases, they are not limited to aqueous solutions.

- Every Arrhenius acid is a Brønsted-Lowry acid (and likewise for the bases).

- Brønsted-Lowry acids and bases always occur in pairs called _____ .

EXAMPLE 1: Write the formula of the **conjugate base** for each of the following compounds:

HSO_3^-

EXAMPLE 2: Write the formula of the **conjugate acid** for each of the following compounds:

HPO_3^{2-}

EXAMPLE 3: Identify the acid, base, conjugate acid and conjugate base in the following reactions:

a) HF (aq)   + H_2O (aq)   ⇌ F^- (aq)   + H_3O^+ (aq)