

## Strong and Weak Acids and Bases

1. The following common acids are strong: HCl, HBr, HI, HNO<sub>3</sub>, HClO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub>

The following are some less common acids that are also strong: HClO<sub>3</sub>, HBrO<sub>3</sub>, HIO<sub>3</sub>, H<sub>2</sub>SeO<sub>4</sub>

Assume all other acids are weak unless told otherwise.

Some weak acids: HF, HNO<sub>2</sub>, HClO<sub>2</sub>, [H<sub>2</sub>SO<sub>3</sub>] = SO<sub>2</sub> + H<sub>2</sub>O, HC<sub>2</sub>H<sub>3</sub>O<sub>2</sub> = HOAc

2. All ionic hydroxides are strong bases, regardless of solubility. Bases that do not contain OH<sup>-</sup> are weak.

Some strong bases: LiOH, NaOH, KOH, RbOH, CsOH, Mg(OH)<sub>2</sub>, Ca(OH)<sub>2</sub>, Sr(OH)<sub>2</sub>, Ba(OH)<sub>2</sub>

Some weak bases: NH<sub>3</sub>, CH<sub>3</sub>NH<sub>2</sub>, C<sub>2</sub>H<sub>5</sub>NH<sub>2</sub>

Not a base: CH<sub>3</sub>OH, C<sub>2</sub>H<sub>5</sub>OH