

## CONCEPT: RADICAL REACTION

□ Chemical bonds can be cleaved in two ways: Heterolytically (ionic cleavage) and homolytically (radical cleavage).



- We use full curved arrows to indicate the movement of \_\_\_\_\_ electrons and a half arrow to indicate \_\_\_\_\_.
- Homolytic dissociation energy is much \_\_\_\_\_ than a corresponding heterolytic dissociation energy.

□ There are a few molecules that are known as radical initiators due to the fact that they contain *relatively weak bonds* that can be easily cleaved by homolysis.

1. Diatomic Halogen:



2. Peroxides:



3. N-bromosuccinimide (NBS):

