

APOLLO

# Electron sharing reactions

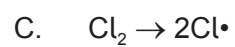
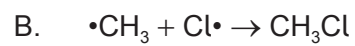
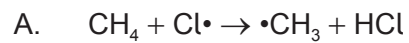
## HL

Chemistry

First assessment 2025

3 questions | questions

40. Which equation represents propagation in a radical substitution mechanism?



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**37.** Which radical is most likely to form during the breakdown of one covalent bond of dichlorofluoromethane,  $\text{CHCl}_2\text{F}$ , in the upper atmosphere?

- A.  $\bullet\text{CHClF}$
- B.  $\bullet\text{CCl}_2\text{F}$
- C.  $\bullet\text{CHCl}_2$
- D.  $\bullet\text{CHCl}_2\text{F}$

36. Which statements explain the following reactions occurring in the upper atmosphere?

|    | <b>Chlorofluorocarbon (CFC) compounds break down to produce chlorine radicals but usually not fluorine radicals.</b> | <b>A single chlorine radical breaks down many ozone, O<sub>3</sub>, molecules.</b> |
|----|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| A. | C–Cl bond is stronger than C–F bond                                                                                  | chain propagation steps produce more radicals                                      |
| B. | C–F bond is stronger than C–Cl bond                                                                                  | chain termination steps cause chlorine radicals to reform chlorine molecules       |
| C. | C–Cl bond is stronger than C–F bond                                                                                  | chain termination steps cause chlorine radicals to reform chlorine molecules       |
| D. | C–F bond is stronger than C–Cl bond                                                                                  | chain propagation steps produce more radicals                                      |