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Chemistry

For the IB Diploma

> Chapter 21

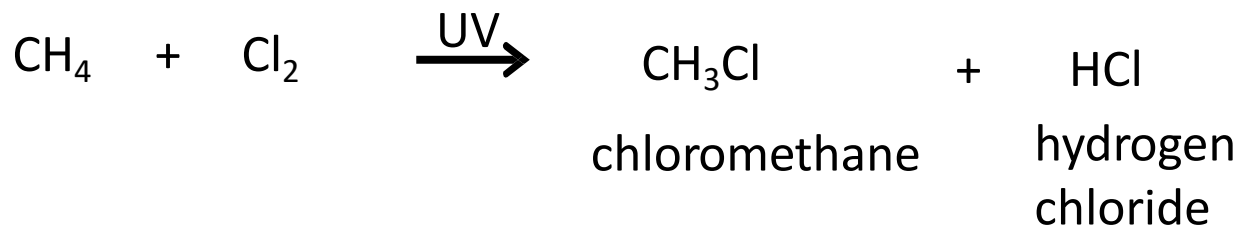
Electron sharing reactions

> Definitions

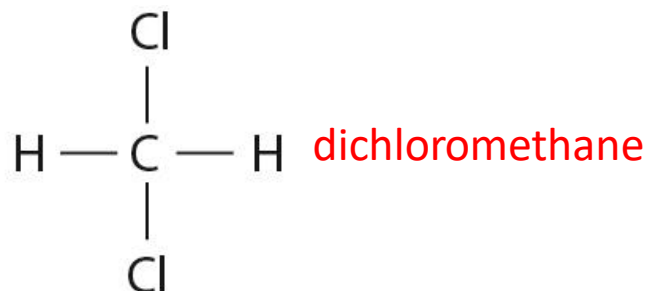
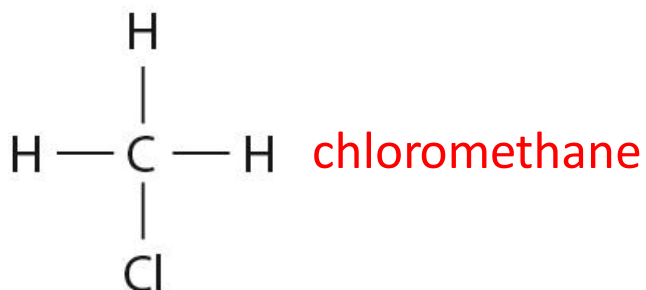
Radical: a species (atom or group of atoms) with an unpaired electron. Radicals are very reactive because of this unpaired electron.

Homolytic fission: a covalent bond breaks such that one electron goes back to each atom making up the original covalent bond.

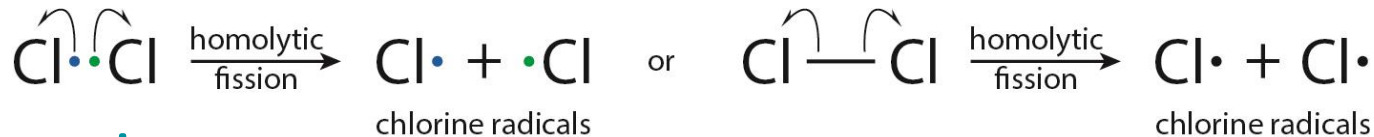
> Reaction of alkanes with halogens



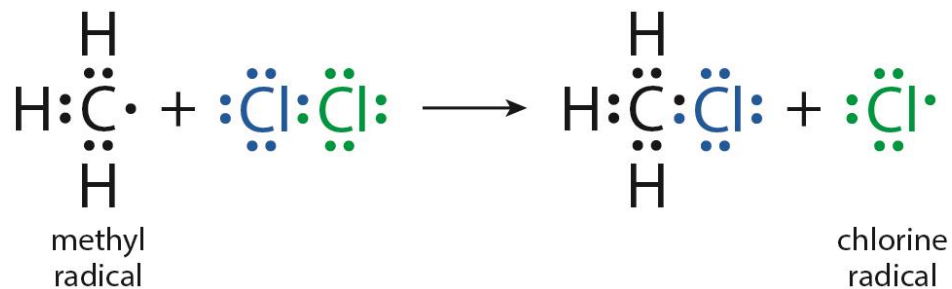
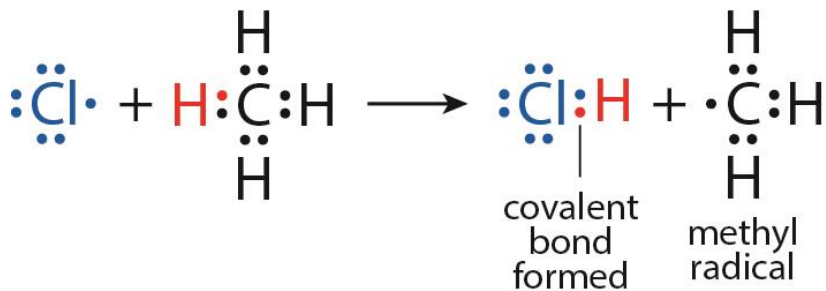
With excess chlorine, methane can react to form other products:



> Initiation



propagation



> Free radical substitution

Termination



➤ Which organic products are formed when the following react with chlorine in the presence of UV light?

