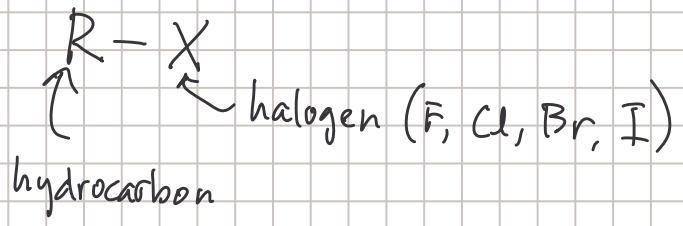
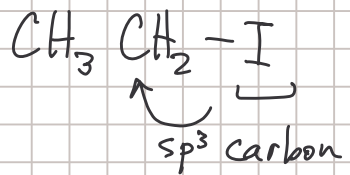
Ch 6 Alkyl halides

Note Title 10/31/2005

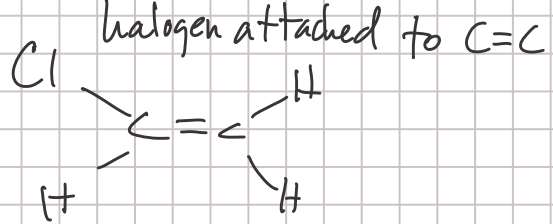
Nucleophilic substitution
& elimination reactions

Alkyl halides: halogenated hydrocarbon



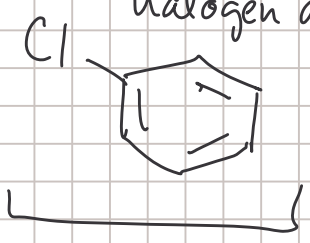


Vinyl halide

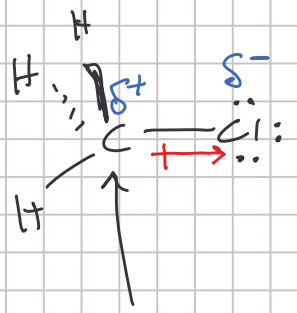


"Vinyl chloride" common name

Aryl halide



Halogens: more electronegative than C



C is electrophilic (Lewis acid - accepts electrons)

Nomenclature

IUPAC (systematic) names: halogen as substituent

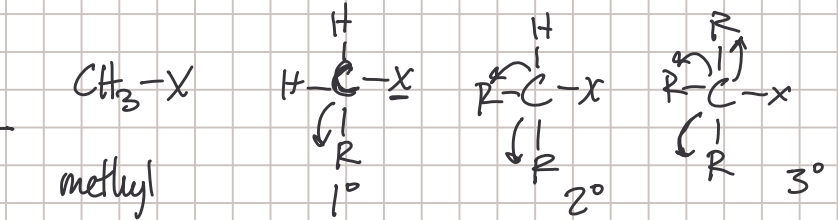
fluoro-
chloro-
bromo-
iodo-

Common name: use alkyl substituent name + "alkyl halide"

	IUPAC	Common names
CH_3CH_2Br	bromoethane	ethyl bromide
$CH_3CH(Br)CH_3$	2-bromopropane	isopropyl bromide
general:	"haloalkane"	"alkyl halide"

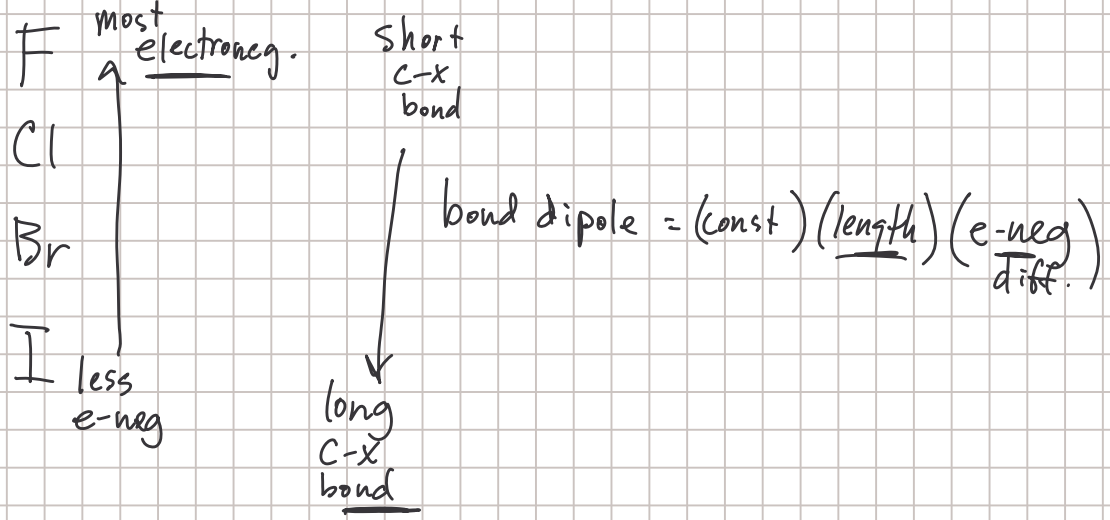
	CH_2Cl_2	$CHCl_3$	CCl_4
IUPAC:	dichloromethane	trichloromethane	tetrachloromethane
common:	methylene chloride	chloroform	carbon tetrachloride

Structure



Uses

- solvents
- reagents (starting points for synthesis)
- anesthetics
- refrigerants (Freon)
- (propellants) CFC chloro fluoro carbons
- pesticides



all C-X bonds have about the same dipole (eneg & length are opposing)