



Halogenoalkanes - Properties

1 2 3 4 5

- .
- .
- .
- .
- .
- .

HOWEVER!

e.g.

Can be 1°, 2° or 3°



Nucleophilic Substitution

Nucleophilic
Substitution

With OH^- AKA

★

★

→

+

Overall :

+

→

+

With CN^-

★

→

+

Overall :

+

→

+

★



Nucleophilic Substitution - $\ddot{\text{N}}\text{H}_3$

1 2 3 4 5



Overall:





Relative Ease of Substitution

1 2 3 4 5

The ease of substitution depends on the

of C-X

Rates of Substitution

The Practical

+ → + +

-
- i.e.



Testing for Halogenoalkanes

1 2 3 4 5

①		
②		
<u>WHY?</u>		
③		
Identifies:	-	
	-	
	-	

NB! Follow up the test using conc. $\text{NH}_3(\text{aq})$ or dil. $\text{NH}_3(\text{aq})$



Elimination

Elimination - Making Alkenes

1 2 3 4 5



or

+



Isomeric Products

•

•

•

e.g.



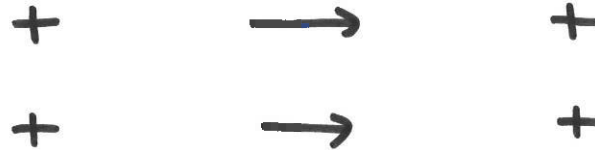


Ozone (O₃)

e.g.



The Reaction



LUCKILY!

Solutions

★
★