## FUNCTIONAL GROUPS IN ORGANIC CHEMISTRY

FUNCTIONAL GROUPS ARE GROUPS OF ATOMS IN ORGANIC MOLECULES THAT ARE RESPONSIBLE FOR THE CHARACTERISTIC CHEMICAL REACTIONS OF THOSE MOLECULES. IN THE GENERAL FORMULAE BELOW, 'R' REPRESENTS A HYDROCARBON GROUP OR HYDROGEN, AND 'X' REPRESENTS ANY HALOGEN ATOM.



**HYDROCARBONS** 



SIMPLE OXYGEN HETEROATOMICS



HALOGEN HETEROATOMICS



CARBONYL COMPOUNDS



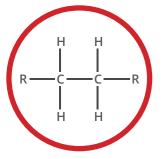
NITROGEN BASED



SULFUR BASED

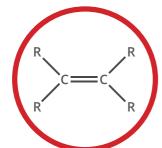


**AROMATIC** 



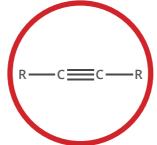
**ALKANE** 

Naming: -ane e.g. ethane



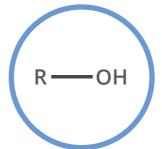
**ALKENE** 

Naming: -ene e.g. ethene



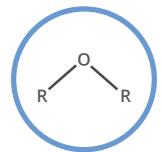
**ALKYNE** 

Naming: -yne e.g. ethyne



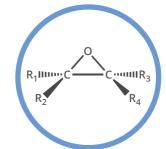
**ALCOHOL** 

Naming: -ol e.g. ethanol



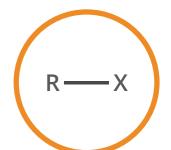
**ETHER** 

*Naming: -oxy -ane* e.g. methoxyethane



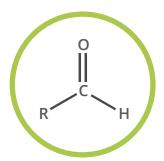
**EPOXIDE** 

Naming: -ene oxide e.g. ethene oxide



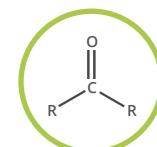
HALOALKANE

Naming: haloe.g. chloroethane



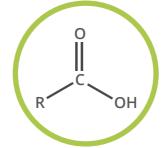
**ALDEHYDE** 

Naming: -al e.g. ethanal



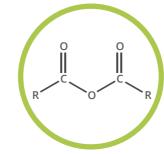
**KETONE** 

Naming: -one e.g. propanone



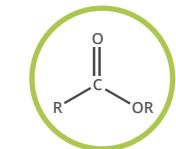
**CARBOXYLIC ACID** 

Naming: -oic acid e.g. ethanoic acid



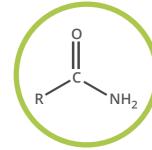
**ACID ANHYDRIDE** 

Naming: -oic anhydride e.g. ethanoic anhydride



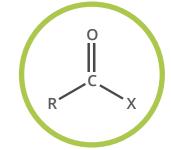
**ESTER** 

Naming: -yl -oate e.g. ethyl ethanoate



**AMIDE** 

Naming: -amide e.g. ethanamide



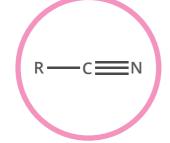
**ACYL HALIDE** 

Naming: -oyl halide e.g. ethanoyl chloride



**AMINE** 

Naming: -amine e.g. ethanamine



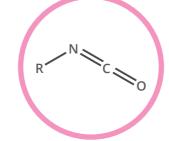
**NITRILE** 

*Naming: -nitrile* e.g. ethanenitrile



**IMINE** 

Naming: -imine e.g. ethanimine



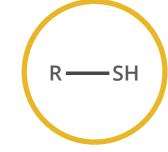
**ISOCYANATE** 

Naming: -yl isocyanate e.g. ethyl isocyanate



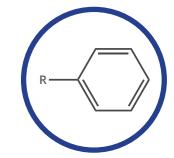
**AZO COMPOUND** 

Naming: azoe.g. azoethane



**THIOL** 

Naming: -thiol e.g. methanethiol



**ARENE** 

Naming: -yl benzene e.g. ethyl benzene

