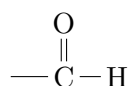


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1 Homologous Series of Aldehydes

The functional group of the aldehyde is the *carbonyl group*. It is named according to the formula *Alkanal*. The functional group is always on the first carbon.



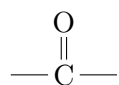
The carbonyl group.

1.1 Examples of Aldehydes

- Methanal $\begin{array}{c} \text{O} \\ || \\ \text{H---C---H} \end{array}$
- Ethanal $\text{CH}_3\text{---CH}_2\text{---}\begin{array}{c} \text{O} \\ || \\ \text{C---H} \end{array}$

2 Homologous Series of Ketones

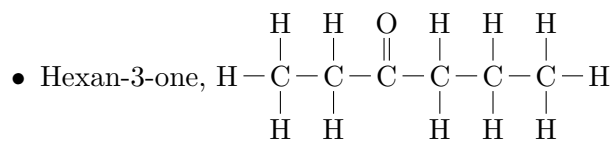
The ketones are very similar to the aldehydes. Its functional group is also the carbonyl group, but this time without the hydrogen. It can therefore not be located on the first or last carbon.



The ketone carbonyl group.

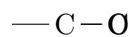
2.1 Examples of Ketones

- Butan-2-one $\begin{array}{ccccccc} & \text{H} & & \text{O} & & \text{H} & \text{H} \\ & | & & || & & | & | \\ \text{H} & \text{---C---} & \text{C---} & \text{C---} & \text{C---} & \text{H} \\ & | & & | & & | \\ & \text{H} & & \text{H} & & \text{H} \end{array}$



3 Homologous Series of Ethers *Not on test*

Functional group:



It breaks a carbon chain apart.

3.1 Examples of Ethers

- Methoxyethane $\text{CH}_3\text{—O—CH}_2\text{—CH}_3$