

Groupes fonctionnels et nomenclature

Formules brutes et noms des 10 premiers alcanes à chaîne linéaire :

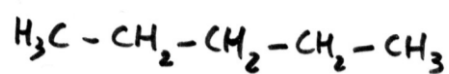
NOM	méthane	éthane	propane	butane	pentane	hexane	heptane	octane	nonane	décane
FORMULE BRUTE	CH ₄	C ₂ H ₆	C ₃ H ₈	C ₄ H ₁₀	C ₅ H ₁₂	C ₆ H ₁₄	C ₇ H ₁₆	C ₈ H ₁₈	C ₉ H ₂₀	C ₁₀ H ₂₂

Les principaux groupes fonctionnels et fonctions :

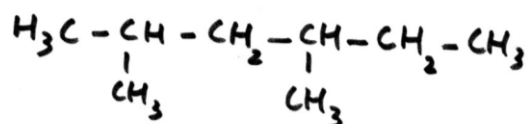
Fonction	Alcool	Aldéhyde	Cétone	Acide carboxylique	Alcène	Ester	Amine	Amide
Groupe caractéristique	-O-H Hydroxyle	$\begin{array}{c} \text{O} \\ \parallel \\ \text{-C} \\ \\ \text{H} \end{array}$ Carbonyle	$\begin{array}{c} \text{O} \\ \parallel \\ \text{C}-\text{C} \\ \quad \\ \text{C} \quad \text{C} \end{array}$ Carbonyle	$\begin{array}{c} \text{O} \\ \parallel \\ \text{-C} \\ \\ \text{OH} \end{array}$ Carboxyle	$\begin{array}{c} \diagup \quad \diagdown \\ \text{C}=\text{C} \\ \diagdown \quad \diagup \end{array}$ Alcène	$\begin{array}{c} \text{O} \\ \parallel \\ \text{-C} \\ \\ \text{O}-\text{C} \end{array}$ Ester	$\begin{array}{c} \diagup \quad \diagdown \\ \text{-N} \\ \quad \end{array}$ Amine	$\begin{array}{c} \text{O} \\ \parallel \\ \text{-C} \\ \\ \text{N} \\ \end{array}$ Amide

Quelques exemples de nomination de molécules :

Alcane :

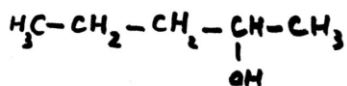


pentane



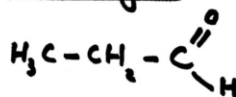
2,4-diméthylhexane

Alcool:



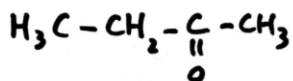
pentan-2-ol

Aldéhyde:



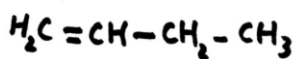
propanal

Cétone:



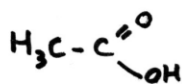
Butan-2-one

Alcène:



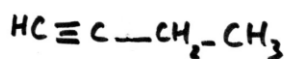
But-1-ène

Acide carboxylique:



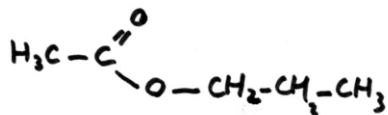
Acide Ethanoïque

Alcyne:



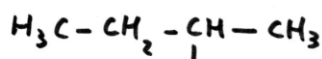
But-1-yne

Ester:



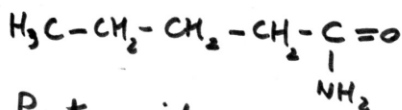
Ethanoate de propyle

Amine:



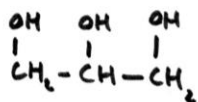
2-aminobutane

Amide:

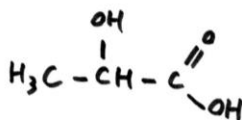


Pentanamide

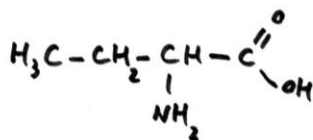
Exemple avec plusieurs groupements:



propan-1,2,3-triol



Acide 2-hydroxypropanoïque



Acide 2-aminobutanoïque