

**PROFESSORA SONIA**  
**TABELA DAS PRINCIPAIS FUNÇÕES ORGÂNICAS E GRUPOS FUNCIONAIS**

<p>Hidrocarboneto Alcano</p> $\begin{array}{c} \text{H} & & \text{H} \\ & \diagdown & / \\ & \text{C} - & \text{C} \\ & / & \diagdown \\ \text{H} & & \text{H} \end{array}$ $\text{R}_1 - \text{C} - \text{C} - \text{R}_2$	<p>Hidrocarboneto Alqueno ou Alceno</p> $\begin{array}{c} \text{H} & & \text{H} \\ & \diagdown & / \\ & \text{C} = & \text{C} \\ & / & \diagdown \\ \text{R}_1 & & \text{R}_2 \end{array}$	<p>Hidrocarboneto Alquino ou Alcino</p> $\text{R}_1 - \text{C} \equiv \text{C} - \text{R}_2$	<p>Hidrocarboneto Areno</p>	<p>Álcool</p> $\text{R} - \text{OH}$	<p>Aldeído</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{C} \\   \\ \text{H} \end{array}$	<p>Cetona</p> $\begin{array}{c} \text{O} \\    \\ \text{R}_1 - \text{C} - \text{R}_2 \end{array}$	<p>Enol</p> $\begin{array}{c} \text{H} & & \text{H(R)} \\ & \diagdown & / \\ & \text{C} = & \text{C} \\ & / & \diagdown \\ \text{R} & & \text{OH} \end{array}$
<p>Fenol</p>	<p>Ácido carboxílico</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{C} \\   \\ \text{OH} \end{array}$	<p>Sal de ácido carboxílico</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{C} \\   \\ \text{O}^- \text{M}^+ \end{array}$	<p>Anidrido de ácido carboxílico</p> $\begin{array}{c} \text{O} & & \text{O} \\    & &    \\ \text{R}_1 - \text{C} & - \text{O} - & \text{C} - \text{R}_2 \end{array}$	<p>Êster de ácido carboxílico</p> $\begin{array}{c} \text{O} \\    \\ \text{R}_1 - \text{C} \\   \\ \text{O} - \text{R}_2 \end{array}$	<p>Carboxilato</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{C} \\   \\ \text{O}^- \end{array}$	<p>Êter</p> $\text{R}_1 - \text{O} - \text{R}_2$	<p>Epóxido ou Epóxi-composto</p>
<p>Peróxido orgânico</p> $\text{R}_1 - \text{O} - \text{O} - \text{R}_2(\text{H})$	<p>Amina</p>	<p>Imina</p> $\begin{array}{c} \text{R}_1 \\   \\ \text{C} = \text{N} \\   \\ \text{R}_2 \end{array}$	<p>Enamina</p>	<p>Oxima</p> $\begin{array}{c} \text{R}_1 \\   \\ \text{C} = \text{N} - \text{OH} \\   \\ \text{R}_2 \end{array}$	<p>Amida</p> $\begin{array}{c} \text{O} \\    \\ (\text{H})\text{R}_1 - \text{C} \\   \\ \text{N} - \text{R}_3(\text{H}) \\   \\ (\text{H})\text{R}_2 \end{array}$	<p>Imida</p>	<p>Azida</p> $\text{R} - \text{N} = \text{N}^+ = \text{N}^-$
<p>Hidrazona</p> $\begin{array}{c} \text{R}_1 \\   \\ \text{C} = \text{N} - \text{NH}_2 \\   \\ \text{R}_2 \end{array}$	<p>Nitrilo(a) ou Cianeto</p> $\text{R} - \text{C} \equiv \text{N}$	<p>Isonitrilo(a) ou Isocianeto</p> $\text{R}_1 - \text{N}^+ \equiv \text{C} - \text{R}_2(\text{H})$	<p>Nitrocomposto</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{N}^+ \\   \\ \text{O}^- \end{array}$ $\text{R} - \text{NO}_2$	<p>Êster de ácido nítrico ou nitrato</p> $\begin{array}{c} \text{O} \\    \\ \text{R} - \text{O} - \text{N}^+ \\   \\ \text{O}^- \end{array}$ $\text{R} - \text{O} - \text{NO}_2$	<p>Nitrito orgânico</p> $\text{R} - \text{O} - \text{N} = \text{O}$	<p>Nitroso orgânico</p> $\text{R} - \text{N} = \text{O}$	<p>Azóxi-compostos</p>

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<p>Cianato</p> $\text{R}-\text{O}-\text{C}\equiv\text{N}$	<p>Isocianato</p> $\text{R}-\text{N}=\text{C}=\text{O}$	<p>Azo-composto</p> $\text{R}_1-\text{N}=\text{N}-\text{R}_2$	<p>Tiol</p> $\text{R}-\text{SH}$	<p>Sulfeto (Tioéter)</p> $\text{R}_1-\text{S}-\text{R}_2$	<p>Dissulfeto orgânico</p> $\text{R}_1-\text{S}-\text{S}-\text{R}_2$	<p>Sulfóxido (Tiocetona)</p> $\text{R}_1-\text{S}(=\text{O})-\text{R}_2$	<p>Sulfona</p> $\text{R}_1-\text{S}(=\text{O})_2-\text{R}_2$
<p>Ácido sulfinico</p> $\text{R}-\text{S}(=\text{O})-\text{OH}$	<p>Ácido sulfônico</p> $\text{R}-\text{S}(=\text{O})_2-\text{OH}$	<p>Sal de ácido sulfônico</p> $\text{R}-\text{S}(=\text{O})_2-\text{O}^-\text{M}^+$	<p>Éster sulfônico</p> $\text{R}_1-\text{S}(=\text{O})_2-\text{O}-\text{R}_2$	<p>Tiocianato</p> $\text{R}-\text{S}-\text{C}\equiv\text{N}$	<p>Isotiocianato</p> $\text{R}-\text{N}=\text{C}=\text{S}$	<p>Tial (Tioaldeído)</p> $\text{R}-\text{C}(=\text{S})-\text{H}$	<p>Fosfano ou Fosfina</p> $\text{R}_1-\text{P}(\text{R}_2)-\text{R}_3$
<p>Ácido fosfônico</p> $\text{R}-\text{P}(=\text{O})(\text{OH})_2$	<p>Éster de ácido fosfórico (Fosfato)</p> $\text{R}-\text{O}-\text{P}(=\text{O})(\text{OH})_2$	<p>Fosfodiéster</p> $\text{R}_1-\text{O}-\text{P}(=\text{O})(\text{OH})-\text{O}-\text{R}_2$	<p>Organometálico Compostos de Grignard</p> $\text{R}_1(\text{H})-\text{C}(\text{R}_2(\text{H}))(\text{R}_3(\text{H}))-\text{Mg}-\text{X}$	<p>Organometálico Compostos de Frankland</p> $\text{R}_1-\text{Zn}-\text{R}_2$	<p>Organometálico Compostos Plúmbicos</p> $\text{R}_1-\text{Pb}(\text{R}_2)(\text{R}_3)(\text{R}_4)$	<p>Haleto orgânico</p> $\text{R}-\text{X}$	<p>Haleto de ácido ou Haleto de acila</p> $\text{R}-\text{C}(=\text{O})-\text{X}$

**Os grupos funcionais de átomos caracterizam moléculas orgânicas dando a elas comportamentos e reatividades próprias.**

**Observação:  $R_n$  ( $n = 1, 2, 3...$ ) representa o “restante” ou continuação da molécula com C e H; X representa qualquer halogênio (Grupo 17 ou família VIIA).**