

ALKINEK

Homológ sor C_nH_{2n-2}

Elnevezés

alkén \longrightarrow alkin

$CH\equiv CH$ etin

$CH\equiv C-CH_3$ propin

$CH\equiv C-CH_2-CH_3$ but-1-in

$CH_2=C(\underset{\text{CH}_2\text{CH}_3}{\text{C}})-C\equiv CH$ 2-etilbut-1-én-3-in

Csoportnevek

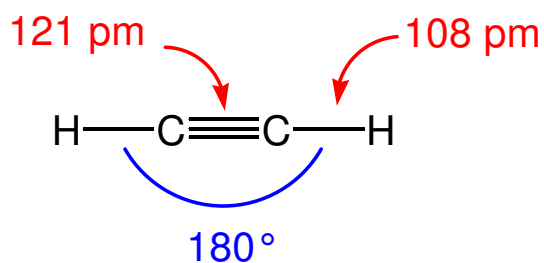
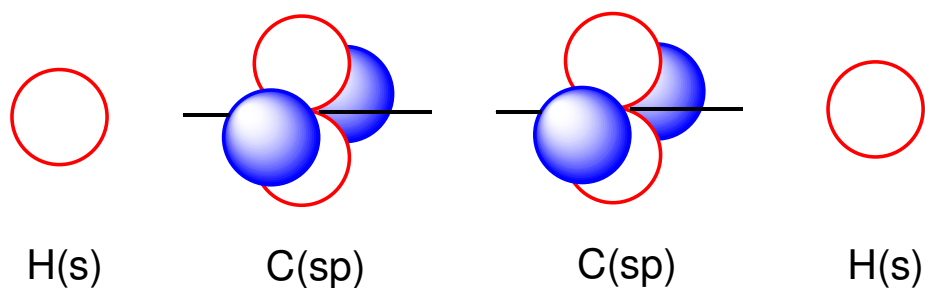
$CH\equiv C-$
etinil

$CH\equiv C-CH_2-$
propargil
2-propinil

$CH_3-C\equiv C-$
1-propinil

AZ ALKINEK SZERKEZETE

Elektronszerkezet



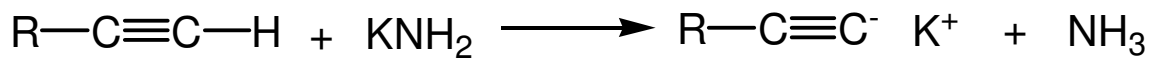
Kötéstípusok



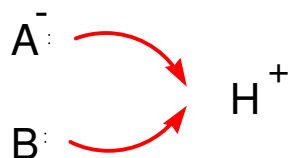
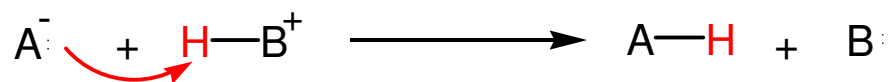
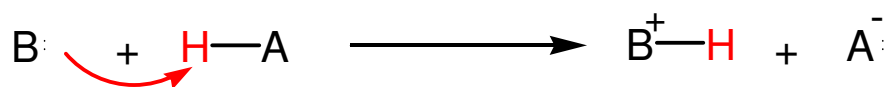
Kötési energia

	C—C (kJ/mol)
CH ₃ —CH ₃	367
CH ₂ =CH ₂	552
CH≡CH	670

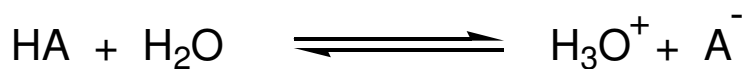
AZ ALKINEK SAVI ERŐSSÉGE



Sav-bázis reakciók



savi erősség jellemzése: **K** (egyensúlyi állandó vizes oldatban)



$$K = \frac{[\text{H}_3\text{O}^+][\text{A}^-]}{[\text{HA}]}$$

$$\text{pK} = -\lg K$$

	pK		pK
CH ₃ —CH ₃	50	CH ₃ CH ₂ OH	17
CH ₂ =CH ₂	44	CH ₃ COOH	5
CH≡CH	25	HCl	-7

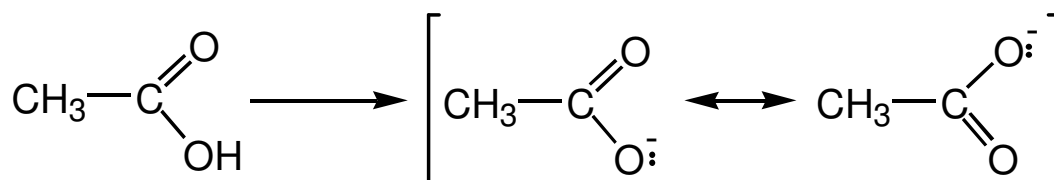
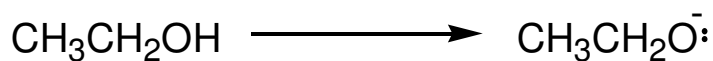
eltérő hibridállapotok hatása

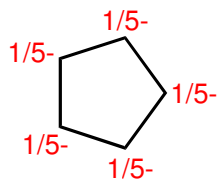
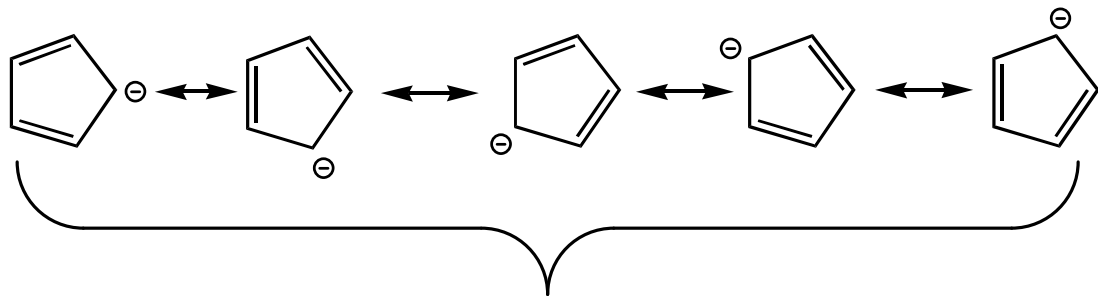
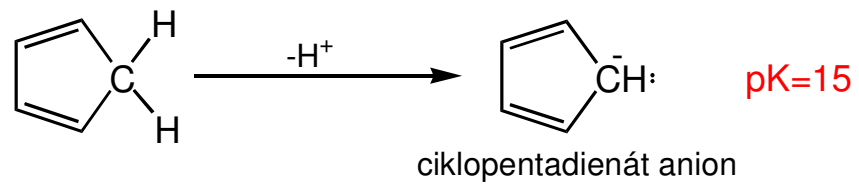
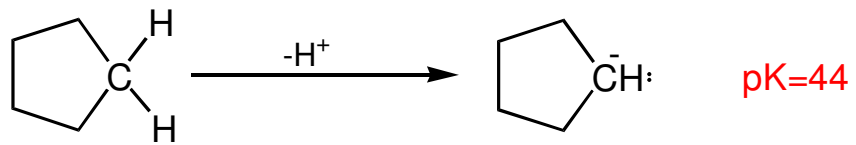
elektronegativitás $C(sp^3) < C(sp^2) < C(sp)$

karbanionok relatív stabilitása $C^-(sp^3) < C^-(sp^2) < C^-(sp)$

savi erősség $C(sp^3)\text{—H} < C(sp^2)\text{—H} < C(sp)\text{—H}$

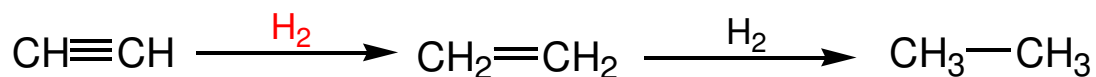
a konjugáció hatása



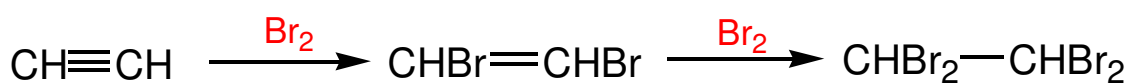


AZ ALKINEK ADDÍCIÓS REAKCIÓI

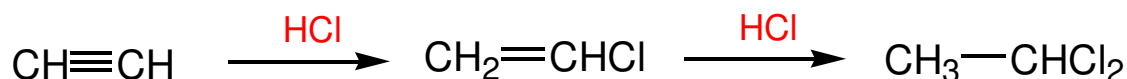
Hidrogénezés



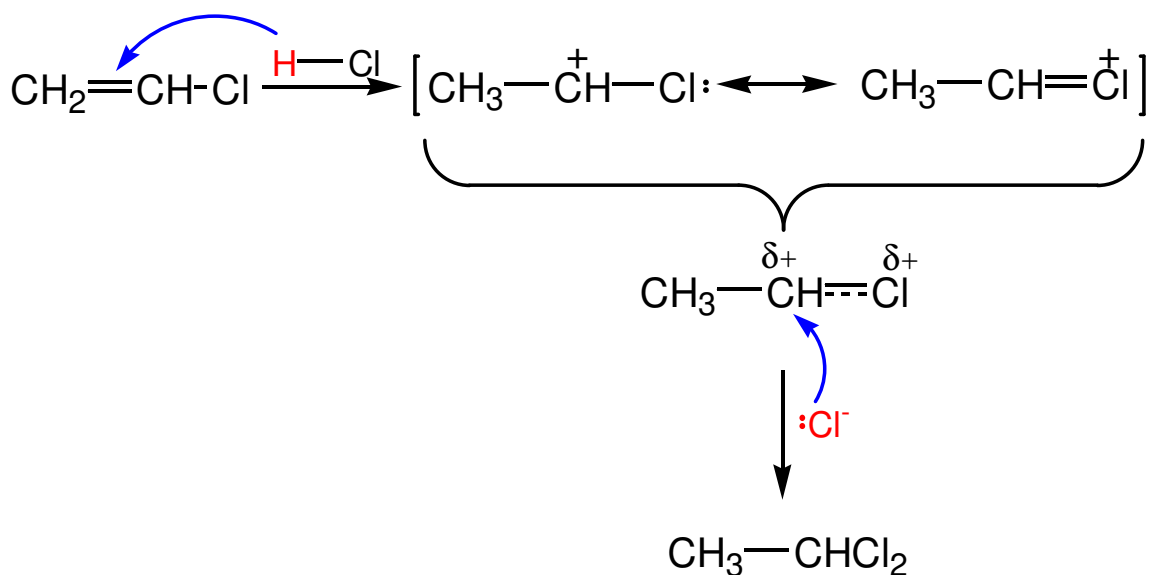
Halogénezés



Hidrogén-halogenidek addíciója



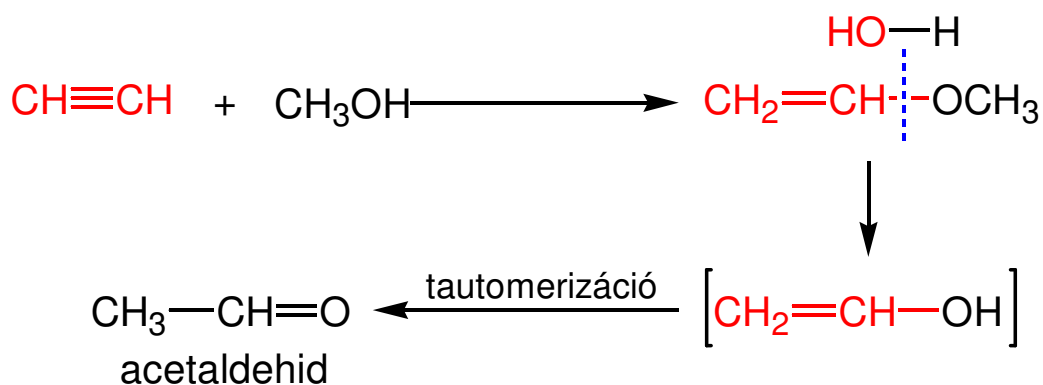
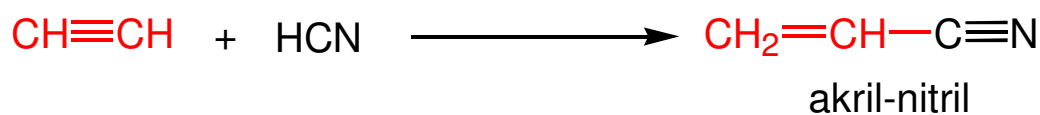
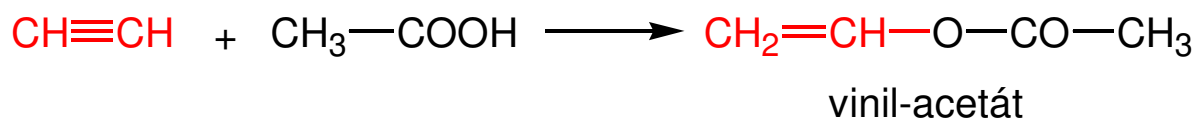
Mechanizmus



Vinilezési reakciók



példák



Polimerizáció

