KVALITATIVNI SASTAV ORGANSKIH SPOJEVA

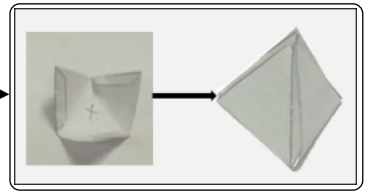
ORGANSKI SPOJEVI

- građeni od molekula
- izgrađeni uglavnom od ugljika i vodika
- drugi kemijski elementi: ugljik, vodik, kisik, dušik, sumpor, klor, brom, jod, fosfor, kalij, natrij, kalcij, magnezij, željezo...

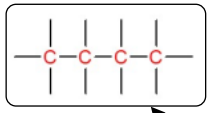
UGLJIK (C)

- četvrovalentan
- tetraedar

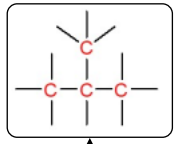
tetraedar



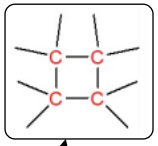
POVEZIVANJE UGLJIKOVIH ATOMA



ravni lanac

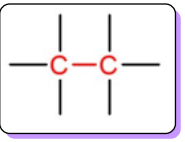


razgranati lanac

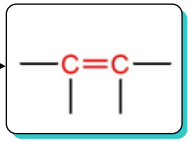


prstenasti oblik

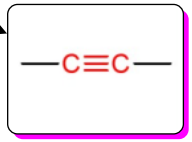
jednostruka veza



dvostruka veza



trostruka veza



veze među atomima ugljika

KVALITATIVNI SASTAV ORGANSKIH SPOJEVA

UGLJIK (C)

alkohol $\xrightarrow{\text{gorenje (oksidacij a)}}$ voda + ugljikov dioksid

dokazivanje vapnenom vodom

$Ca(OH)_2(aq) + CO_2(g) \rightarrow CaCO_3(s) + H_2O(l)$

VODIK (H)

dokazivanje bakrovim(II) oksidom

$CuSO_4(s) + 5\ H_2O(l) \rightarrow CuSO_4 \cdot 5\ H_2O(s)$

DUŠIK (N)

bjelance jajeta $\xrightarrow{\text{lužina i zagrijavanje}}$ amonijak

dokazivanje vlažnim crvenim lakmusovim papirom

$NH_3(g) + H_2O(l) \rightleftarrows NH_4^+(aq) + OH^-(aq)$

SUMPOR (S)

bjelance jajeta $\xrightarrow{\text{lužina i zagrijavanje}}$ S^{2-}

dokazivanje otopinom olovova(II) nitrata

$Pb^{2+}(aq) + S^{2-}(aq) \rightarrow PbS(s)$

KLOR (Cℓ)

bakrena žica + PVC izolacija sa žice = plamen postaje zelen

zelena boja od $CuC\ell_2$