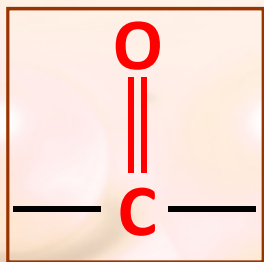
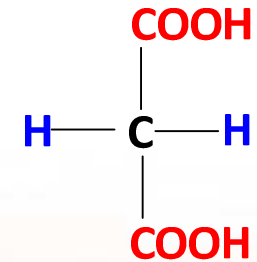
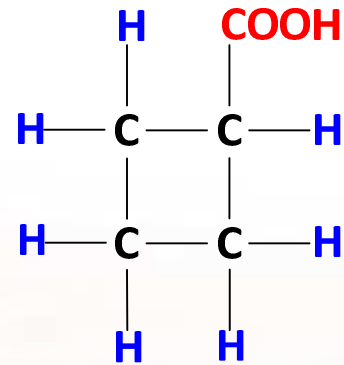
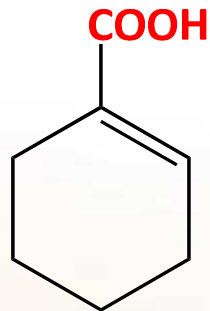
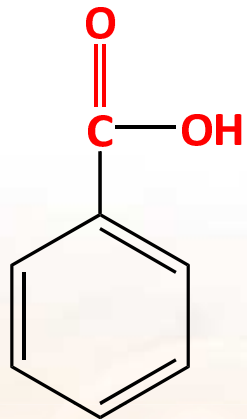
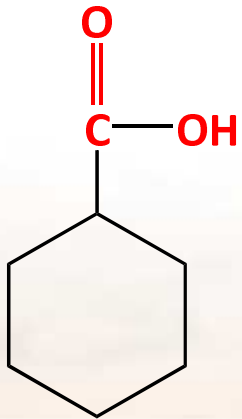
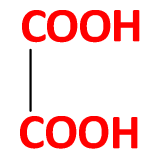
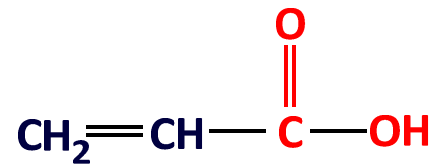
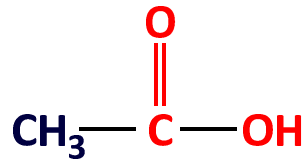
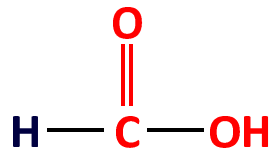


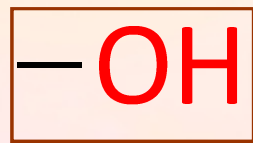
KARBOKSIILNE KISELINE 1

prof. Goran Poš



KARBONILNA GRUPA

+



HIDROKsilNA GRUPA

=



KARBOKSILNA GRUPA

ORGANSKA JEDINJENJA (ACIKLIČNA ILI CIKLIČNA) KOJA POSEDUJU JEDNU ILI VIŠE KARBOKSILNIH GRUPA

Podela karboksilnih kiselina

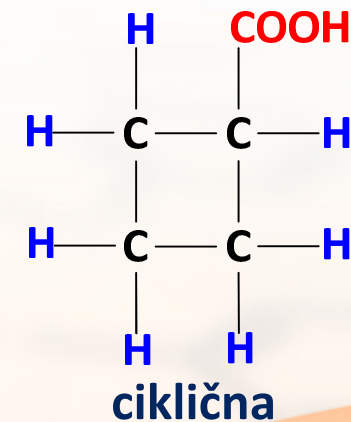
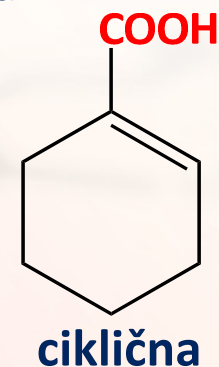
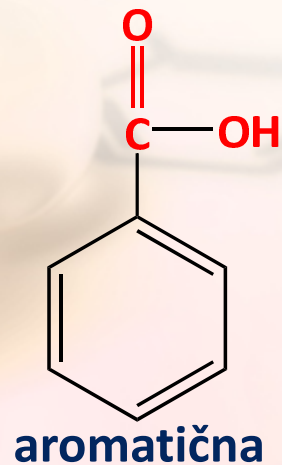
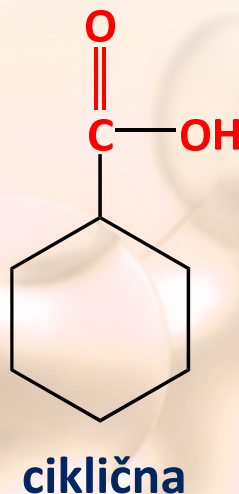
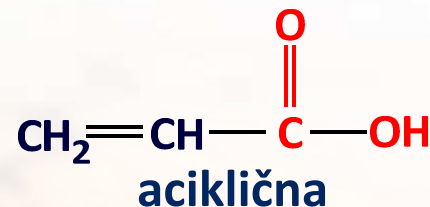
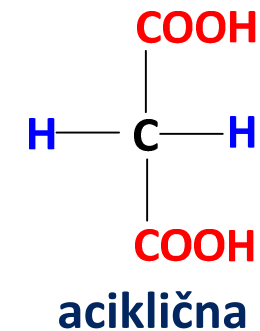
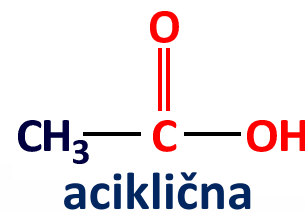
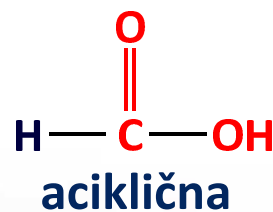
1. prema strukturi
2. prema zasićenosti
3. prema broju karboksilnih grupa

KARBOKSILNE KISELINE prema strukturi

aciklične

ciklične

aromatične

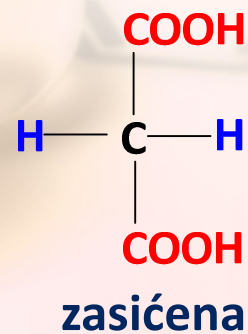
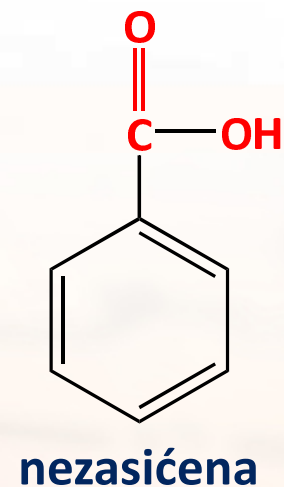
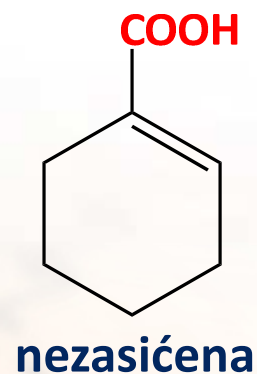
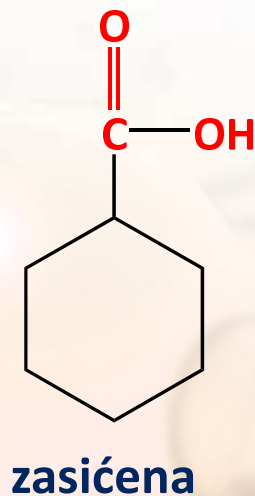
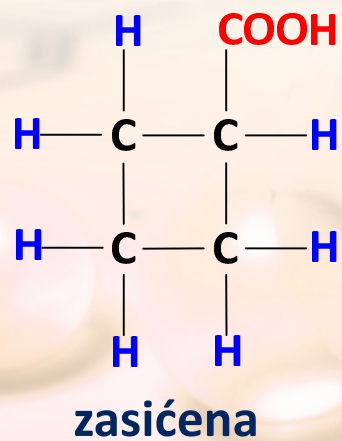
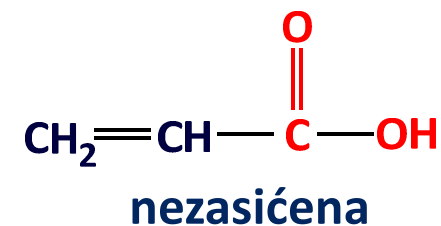
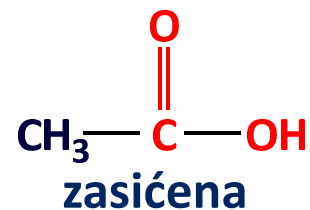
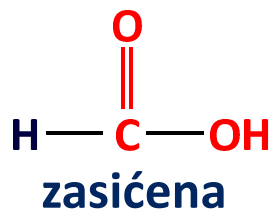


KARBOKSIKILNE KISELINE

prema zasićenosti

zasićene

nezasićene



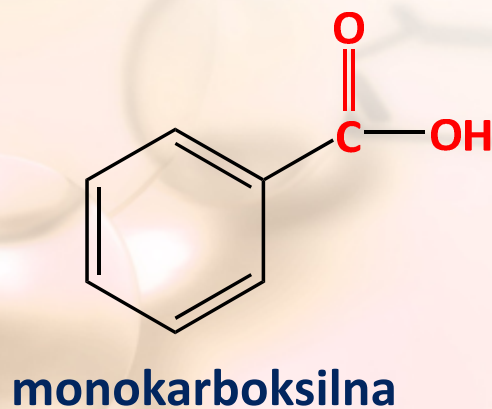
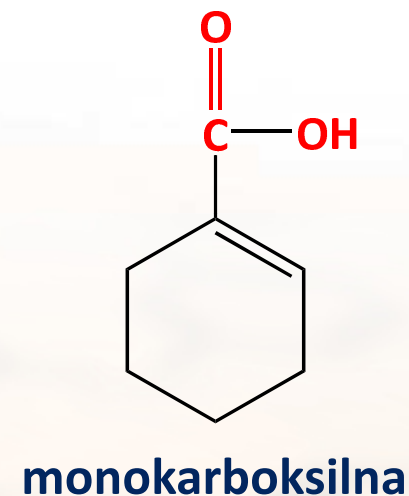
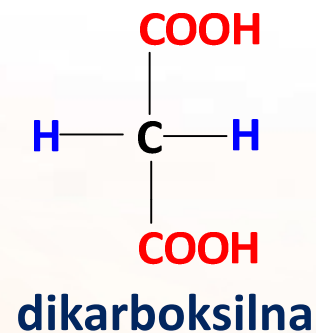
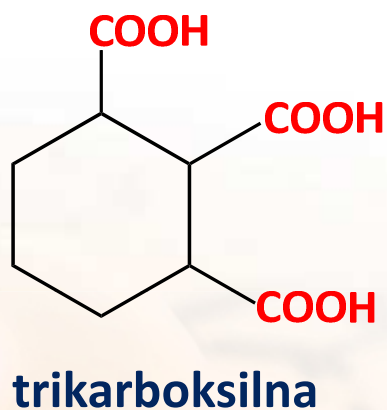
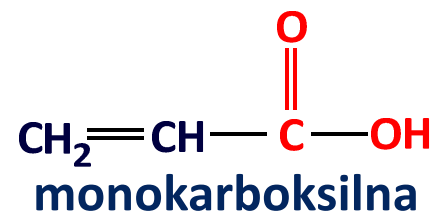
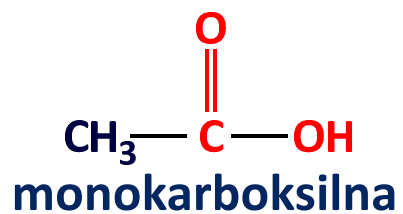
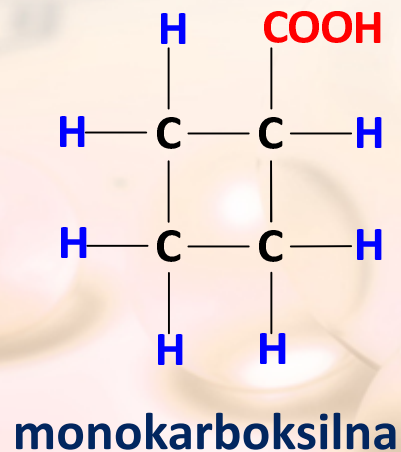
**KARBOKSILNE
KISELINE**

prema broju
-COOH grupa

monokarboksilne

dikarboksilne

trikarboksilne



Homologi niz karboksilnih kiselina

Racionalna strukturna formula	Naziv kiseline (IUPAC novi)	Naziv kiseline (IUPAC stari)	Naziv kiseline (trivijalni)
$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}-\text{C}-\text{OH} \end{array}$	metan-kiselina	metanska kiselina	mravlja
$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{C}-\text{OH} \end{array}$	etan-kiselina	etanska kiselina	sirćetna
$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{OH} \end{array}$	propan-kiselina	propanska kiselina	propionska
$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{CH}_2-\text{C}-\text{OH} \end{array}$	butan-kiselina	butanska kiselina	buterna
$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{OH} \end{array}$	pentan-kiselina	pentanska kiselina	valerijanska
$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{OH} \end{array}$	heksan-kiselina	heksanska kiselina	kapronska
$\begin{array}{c} \text{COOH} \\ \\ \text{COOH} \end{array}$	etan-dikiselina	etanska dikiselina	oksalna

Poznatije karboksilne kiseline

HCOOH
mravlja

CH_3COOH
sirćetna

$\begin{array}{c} \text{COOH} \\ | \\ \text{COOH} \end{array}$
oksalna

$\begin{array}{c} \text{COOH} \\ | \\ \text{CH}_2 \\ | \\ \text{COOH} \end{array}$
malonska

$\begin{array}{c} \text{COOH} \\ | \\ \text{CH}_2 \\ | \\ \text{CH}_2 \\ | \\ \text{COOH} \end{array}$
ćilibarna

$\text{CH}_2=\text{CH}-\text{COOH}$
akrilna

$\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$
buterna

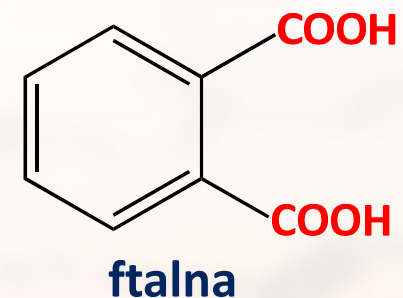
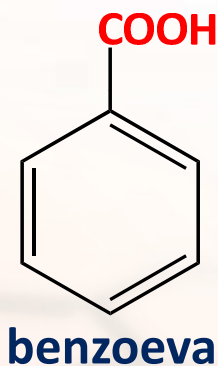
$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$
kapronska

$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$
kaprilna

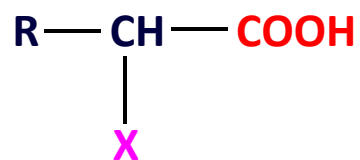
$\text{C}_{15}\text{H}_{31}\text{COOH}$
palmitinska

$\text{C}_{17}\text{H}_{35}\text{COOH}$
stearinska

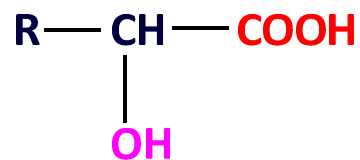
$\text{C}_{17}\text{H}_{33}\text{COOH}$
oleinska



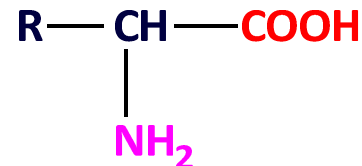
Supstutisane karboksilne kiseline



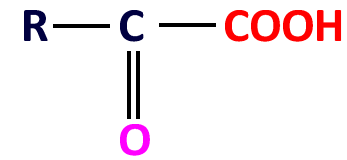
halogen-kiseline
X = F, Cl, Br, I



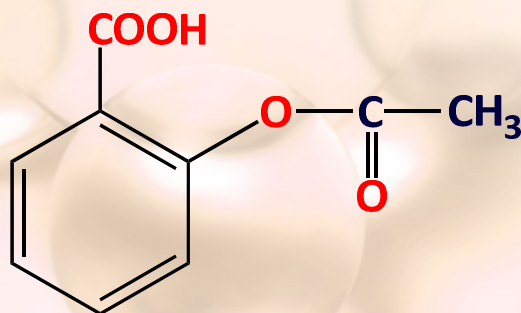
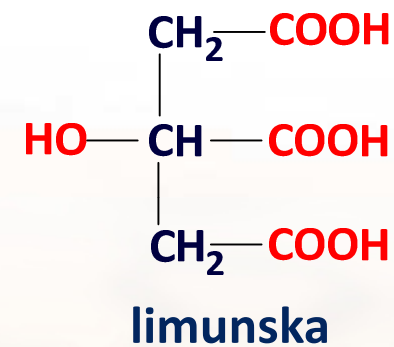
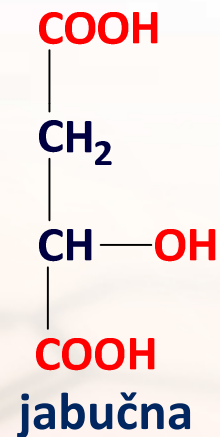
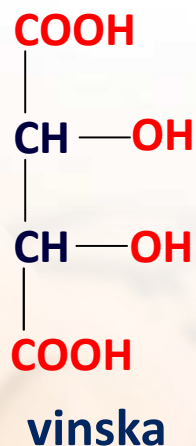
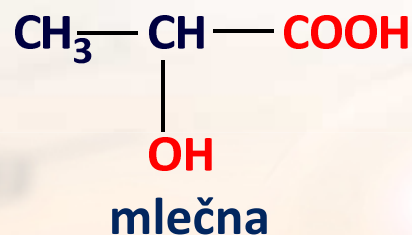
hidroksi-kiseline



amino-kiseline

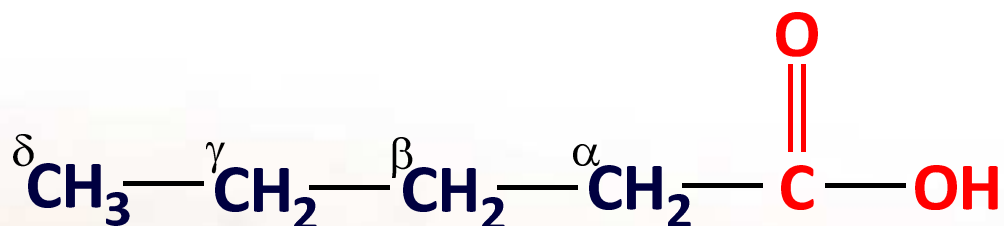
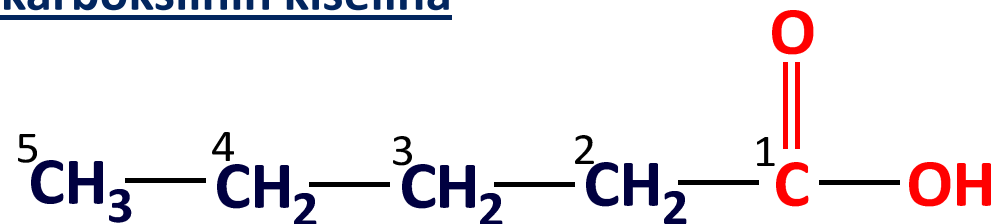


keto-kiseline

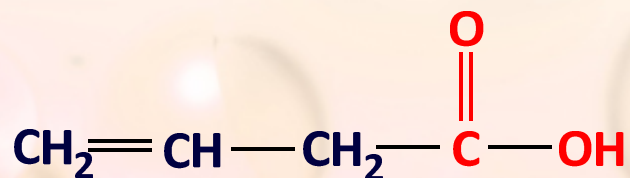


acetil-salicilna

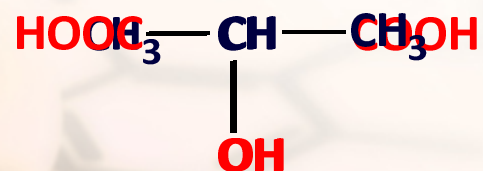
Numeracija karboksilnih kiselina



Nomenklatura i izomerija karboksilnih kiselina



3-buten kiselina
(β-buten kiselina)



2-hidroksi-propan kiselina
(α-hidroksi-propan kiselina)

Važnji predstavnici karboksilnih kiselina

Mravlja kiselina



Sirćetna kiselina

