



# 8.

## seminář LC

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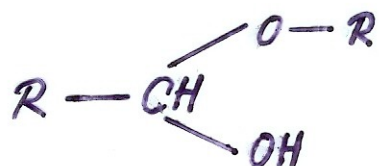
alkohol, fenol



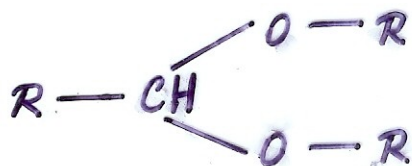
eter



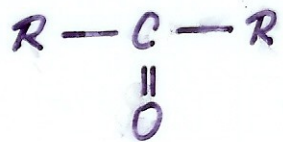
hydroperoxid



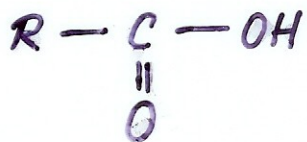
poloacetal  
(cyklické  
formy cukrů)



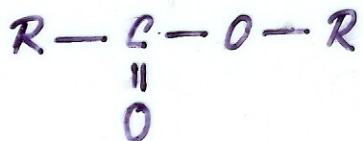
acetal (ev. glykosid)



keton



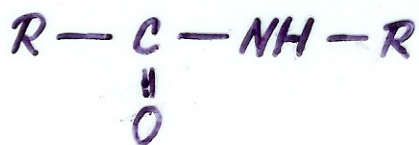
kyselina



ester (ev. lakton)



anhydrid kyseliny



amid (ev. laktam)

# CARBOXYLIC ACIDS



acyl-



substitution derivatives



functional derivatives

- OH

hydroxy carboxylic acids



aldehydo. ——— " ———



keto. ——— " ———

- NH<sub>2</sub>

amino. ——— " ———

-(Cl)

halogen. ——— " ———

- COCl  
acyl halides

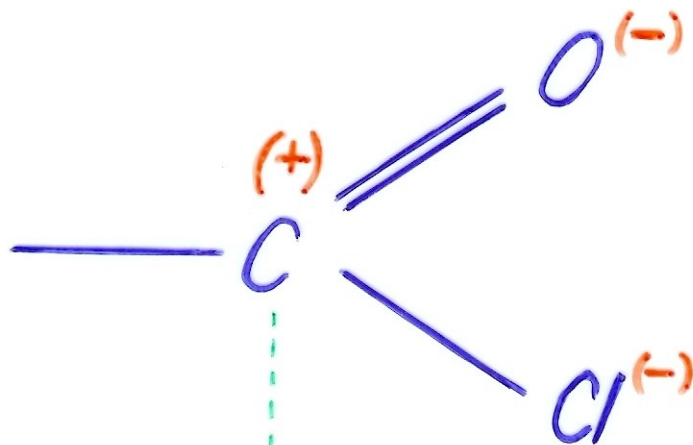
- CO-O-  
esters

- CONH<sub>2</sub>  
amides

(-C≡N)  
nitriles

not more acidic

# Acylohalogenid



elektrofilnost uhlíku jakožto (+),  
možnost reakce s nukleofilními činidly

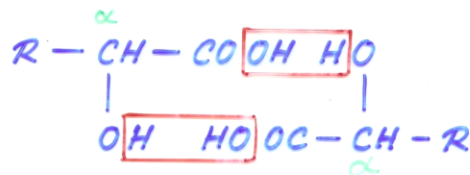
↓  
elektrofilnost uhlíku jakožto (+),  
možnost reakce s nukleofilními činidly

↓  
mají přebytek  $e^-$



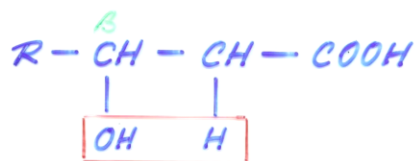
# HYDROXYKYSELINY

α-



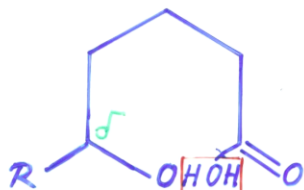
esterifikace 2 molekul → laktid  
 <dvě>

β-



→ α,β-nenasycená  
 mastná kys.

γ, δ-



esterifikace uvnitř  
 1 molekuly → γ-lakton  
 <jedna>



MONOKARBOXYLOVÉ KYSELINY MONOCARBOXYLIC ACIDS

	nasyčené saturated	nenasyčené unsaturated	-OH	=O	-NH <sub>2</sub>
C <sub>1</sub>	mravenčí formic <i>acidum formicum</i>		uhličitá carbonic		
C <sub>2</sub>	octová acetic <i>acidum aceticum</i>				Gly
C <sub>3</sub>	propionová propionic <i>ac. propionicum</i>	akrylová acrylic	mléčná lactic (Ser)	pyrohroznová pyruvic	Ala (α-, β-)
C <sub>4</sub>	másečná butyric <i>acidum butyricum</i>	krotonová crotonic	β-hydroxymásečná β-hydroxybutyric (Thr)	acetooctová acetoacetic	GABA  (Met)
C <sub>5</sub>	valerová valeric <i>acidum valericum</i>			levulová levullinic  (δ-aminolevulová) (δ-aminolevullinic)	Orn (diamino-) (Arg)

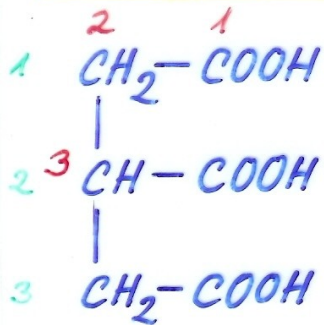
DIKARBOXYLOVÉ KYSELINY

DICARBOXYLIC ACIDS

	nasyčené saturated	nenasyčené unsaturated	-OH	=O	-NH <sub>2</sub>
C <sub>2</sub>	šťavelová oxalic <i>acidum oxalicum</i>				
C <sub>3</sub>	malonová malonic <i>acidum malonicum</i>			mesoxalová mesoxalic	
C <sub>4</sub>	jantarová succinic <i>acidum succinicum</i>	fumarová fumaric <i>ac. fumaricum</i>	jablečná (1 OH) malic <i>acidum malicum</i> vinná (2 OH) tartaric	oxaloctová oxaloacetic	Asp
C <sub>5</sub>	glutarová glutaric <i>acidum glutaricum</i>			2-oxoglutarová 2-oxoglutaric	Glu

# TRIKARBOXYLOVÉ KYS. TRICARBOXYLIC ACIDS

trikarballylová kys.  
tricarballylic acid

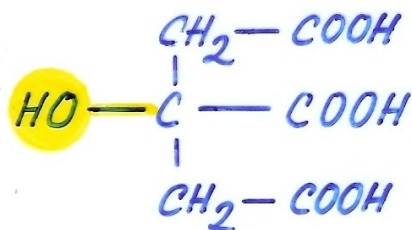


1,2,3 - propan·tri·karboxylová

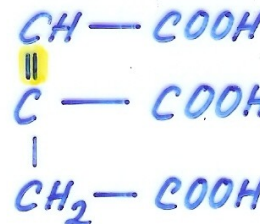
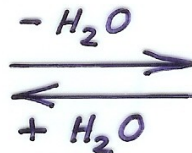
1,2,3 - propane·tri·carboxylic

3-karboxy-penta·diová kys.

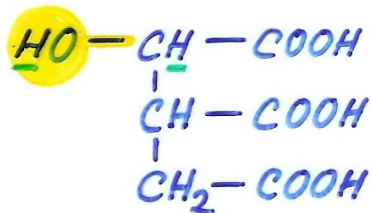
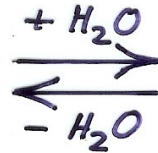
3-carboxy-pentane·dionic acid



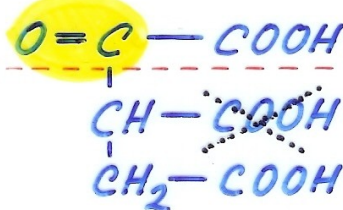
citronová  
citric



akonitová  
aconitic



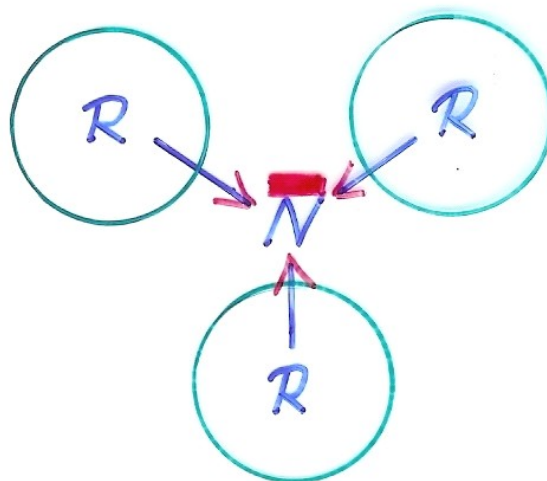
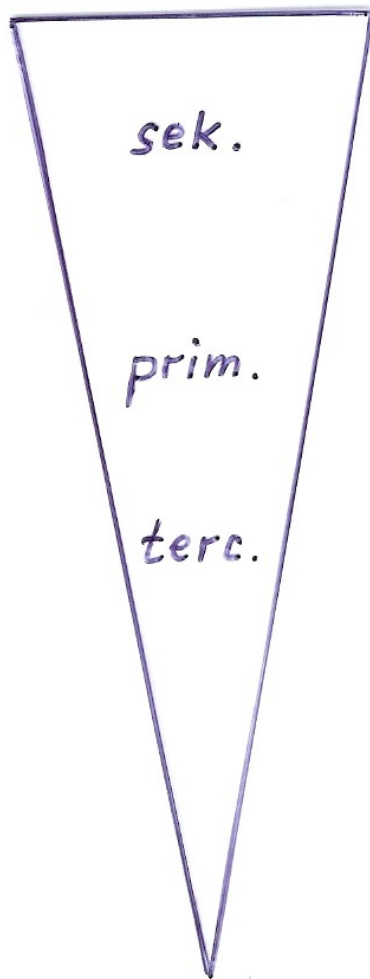
izo-citronová  
isocitric

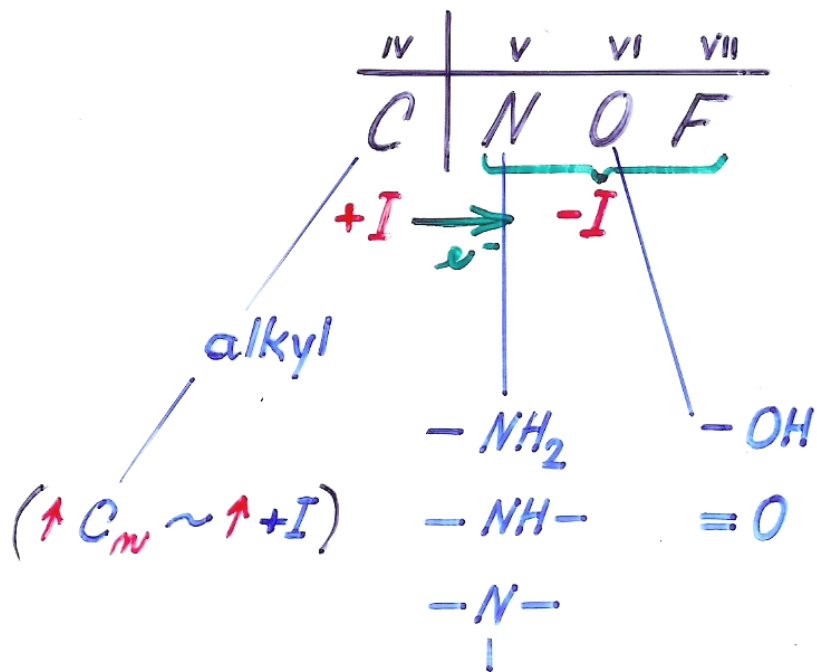


oxal(yl)-  
oxalantarová  
oxalosuccinic

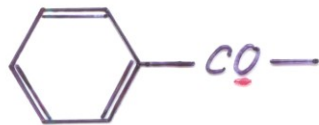


oxal(yl)-

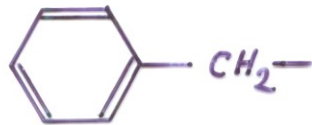




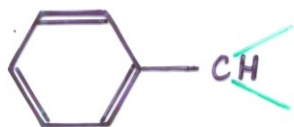
- název: výsledný stav
- "součet" I



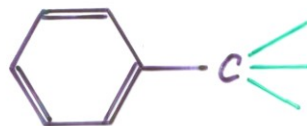
benzoyl-



benzyl-



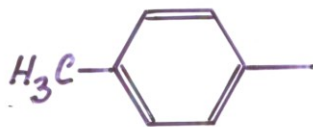
benzyliden



benzylidin



fenyl-



tolyl-

(různé polohy  
o-, m-, p-

