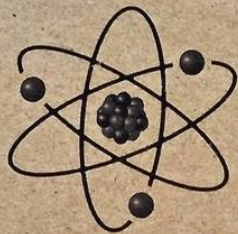


90 232.0 Th thorium	53 126.9 I iodine	7 14.01 N nitrogen	19 39.10 K potassium
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**GONDOLKODJ,
MINT EGY PROTON:
MINDIG MARADJ POZITÍV.**



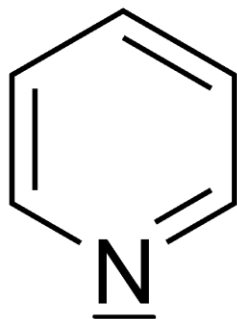
N-tartalmú hetero- aromás vegyületek

11.B | 2026. okt. 12.

jegyzet 49–50. o.;

Tankönyv 276–280. o.

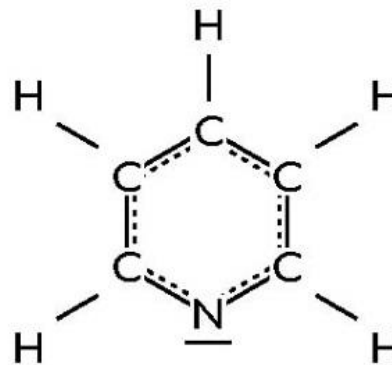
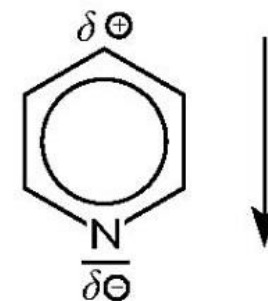
1. Piridin



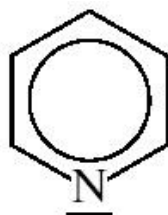
aromás – ?

dipólusmolekula

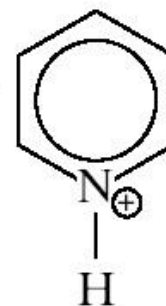
a „N” δ^- és van rajta nemkötő e^- -pár $\rightarrow$ lúgos
(~ aminok)



„bűzös bázis”



+



+



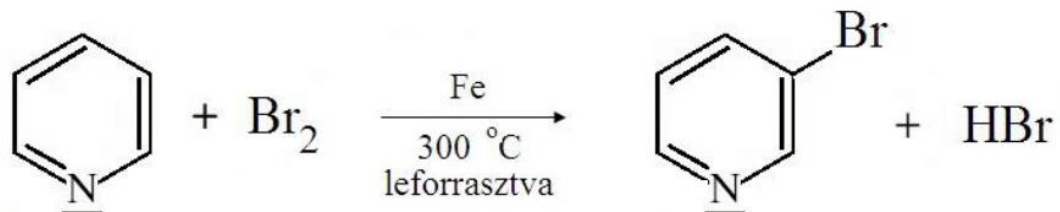
piridíniumion

vízben korlátlanul old., folyadék, színtelen
etanol denaturálása, macskák kasztrálása

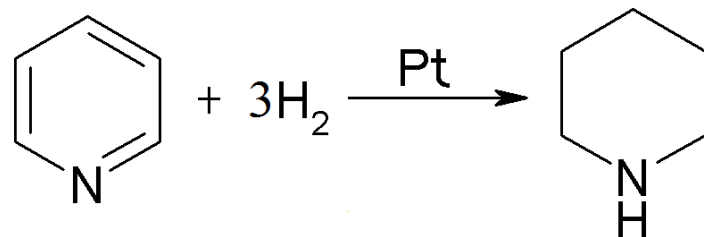


egyéb reakciók:

– brómozás

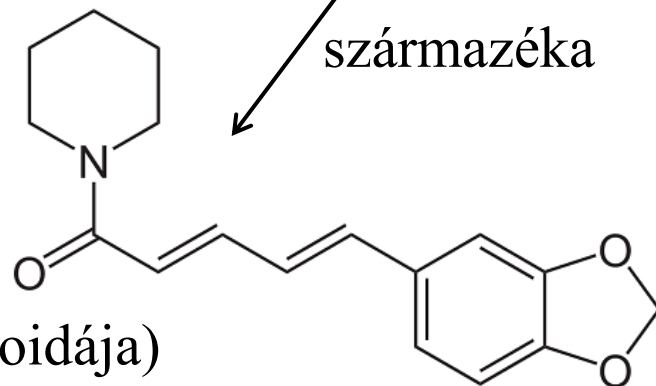


– telítés



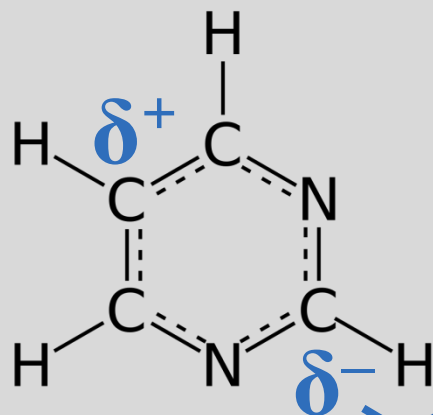
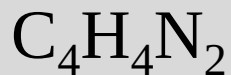
piperidin

származéka



piperin (bors alkaloidája)

2. Pirimidin

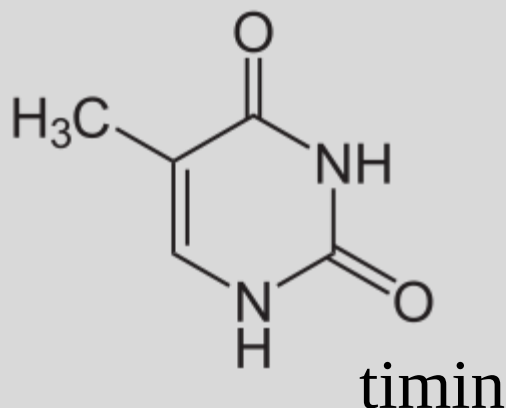
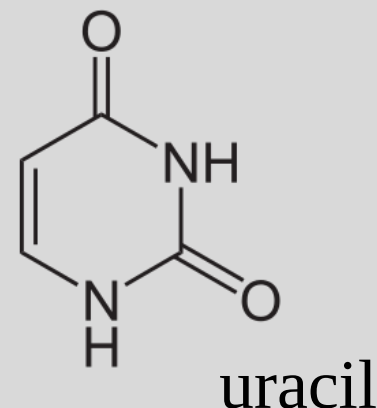


↳ izoelektronos a piridinnel és a benzollal

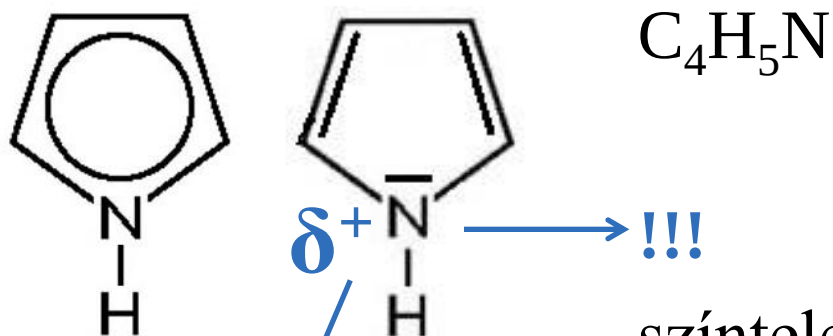
Op. = 22 °C

a piridinnél is gyengébb bázis
gyakorlatilag nem brómozható

Pirimidinvázas nukleinsavbázisok



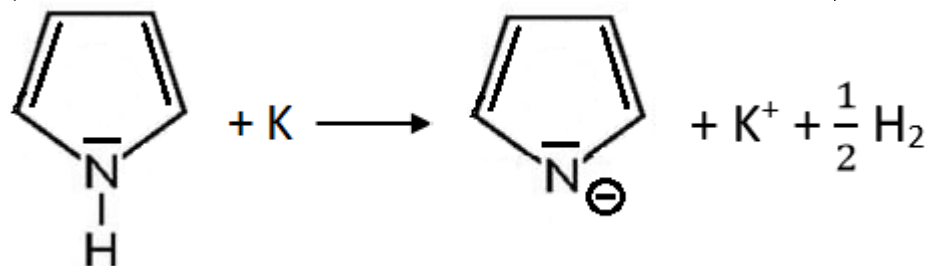
3. Pirrol



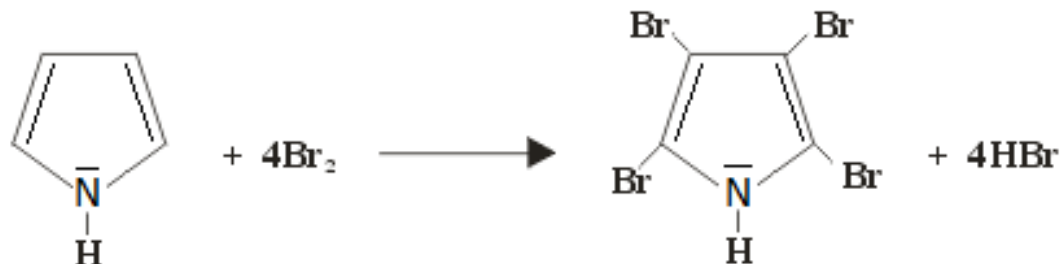
színtelen, jellegzetes szagú, apoláros f.

nem bázisos!

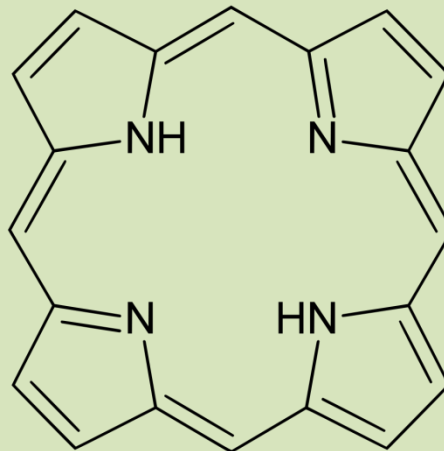
igen gyenge sav (vízzel, NaOH-dal szemben Ø)



brómszubsztitúció



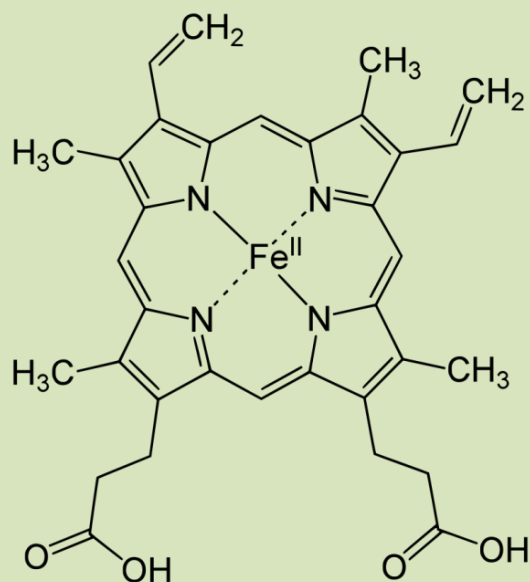
4 db pirrolmolekula
→ porfirinváz



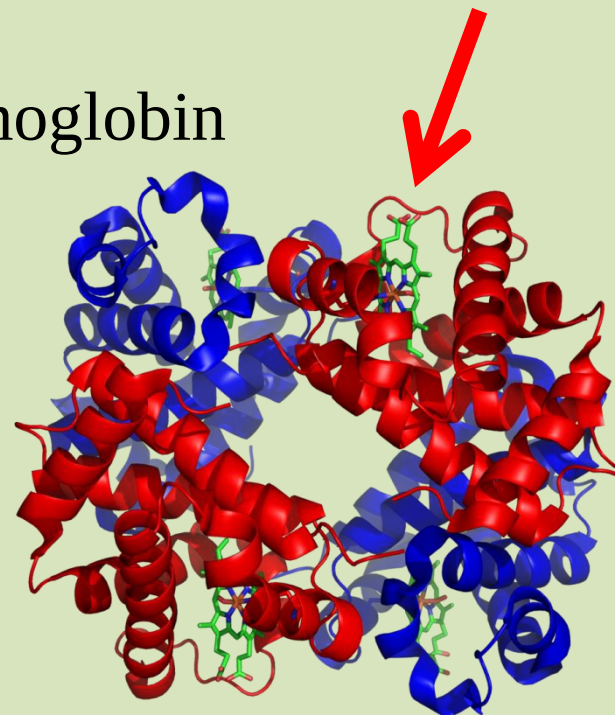
+ Mg^{2+} → klorofill

+ Fe^{2+} / Fe^{3+} → citokrómok

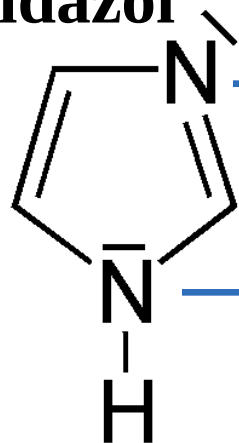
+ Fe^{2+} → hem $\xrightarrow{+ \text{fehérje}}$ hemoglobin



1 db / alegység



4. Imidazol

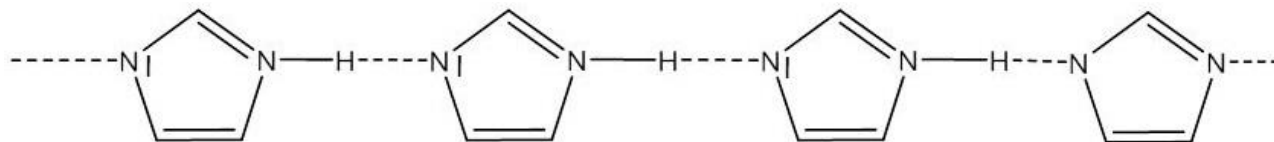


piridinszerű „N”

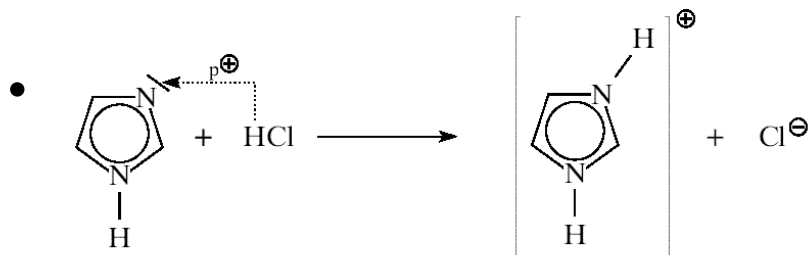
pirrolszerű „N”

amfoter

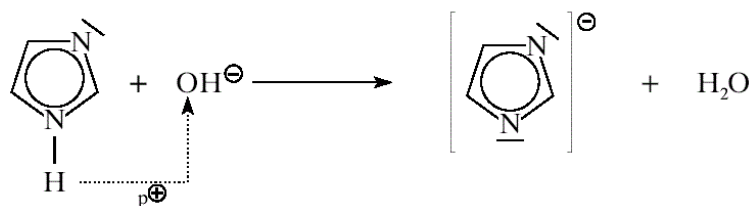
színtelen, szagtalan, kristályos ← H-hídkötések



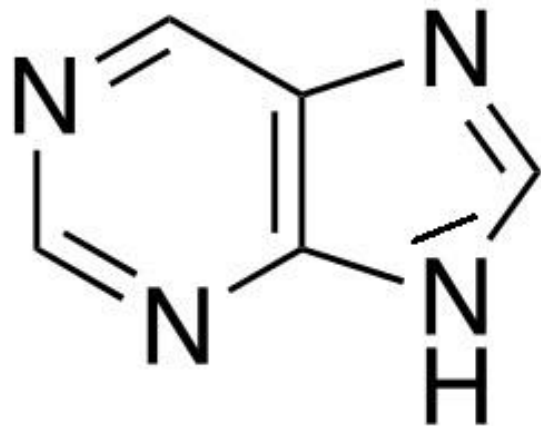
- vízben jól oldódik – gyengén lúgosan



• a hisztidin aminosav
oldallánca
hisztamin



5. Purin



színtelen, szagtalan tűkristályok

amfoter, vizes oldata lúgos

Purinvázis nukleinsavbázisok

