

# Eterocicli-quadro riassuntivo

**Gli eterocicli sono composti ciclici nei quali almeno un atomo del ciclo non è carbonio**

**Gli eterocicli più comuni contengono azoto, ossigeno o zolfo ma anche derivati contenenti boro, silicio, fosforo o arsenico stanno assumendo una certa importanza.**

# Classificazione:

- ❖ Non aromatici

- ❖ Aromatici

  - PENTATOMICI

  - ESATOMICI

  - BENZOCONDENSATI

  - POLICICLICI

## Cicli a tre atomi: ossirani, aziridine e tiirani



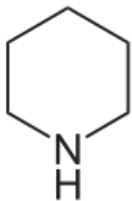
## Cicli a quattro atomi: ossetani, azetidina e tiettani



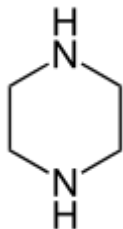
**Cicli a cinque atomi:  
tetraidrofurano, pirrolidina e tetraidrotiofene**



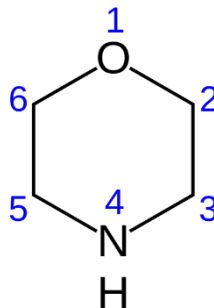
## Cicli a sei atomi non aromatici



Piperidina

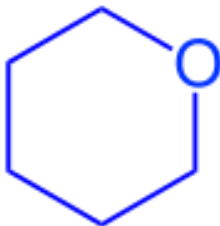


Piperazina

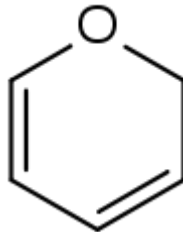


Morfolina

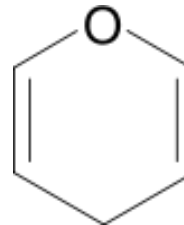
## Cicli a sei atomi non aromatici



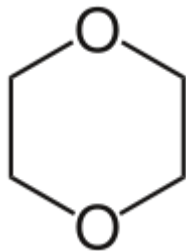
Tetraidropirano



2H-pirano



4H-pirano



1,4-diosano

# Eterocicli aromatici

PENTATOMICI con 1 ETEROATOMO



pirrolo



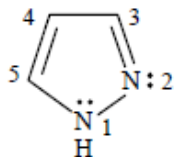
furano



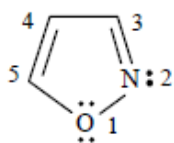
tiofene

# Eterocicli aromatici pentatomici azotati con 2 eteroatomi: azoli

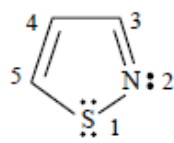
## ETEROATOMI: 1,2-



pirazolo  
1,2-diazolo



isossazolo  
1,2-ossazolo

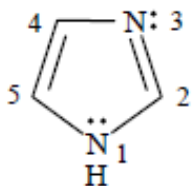


isotiazolo  
1,2-tiazolo

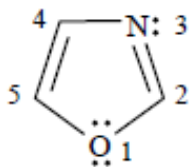


# Eterocicli aromatici pentatomici azotati con 2 eteroatomi: azoli

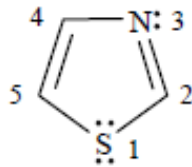
## ETEROATOMI: 1,3-



imidazolo  
1,3-diazolo

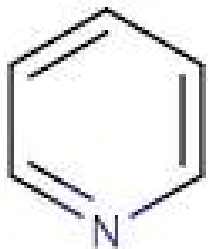


ossazolo  
1,3-ossazolo

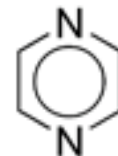
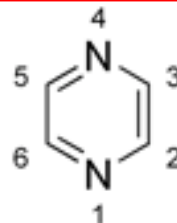
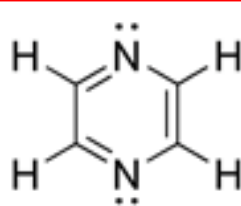


tiazolo  
1,3-tiazolo

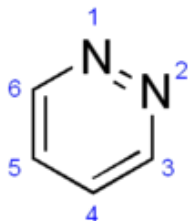
# Eterocicli aromatici azotati a 6 termini



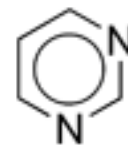
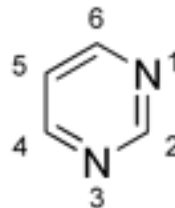
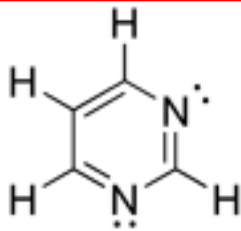
Piridina



Pirazina

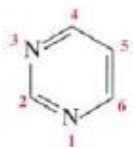


Piridazina

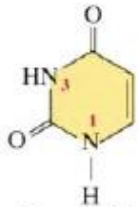


Pirimidina

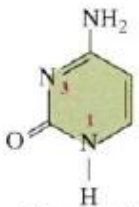
# Derivati pirimidinici presenti negli acidi nucleici



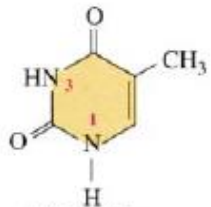
Pirimidina



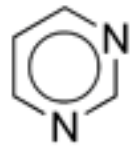
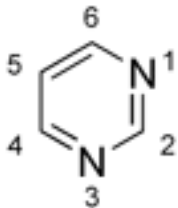
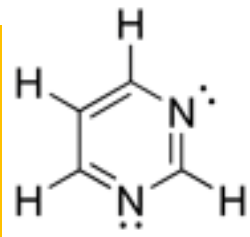
Uracile (U)

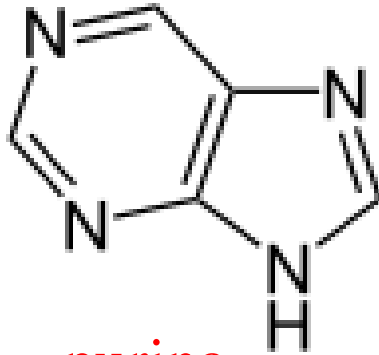


Citosina (C)



Timina (T)

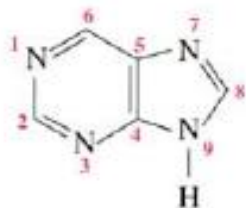




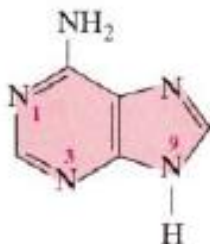
purina

Eterociclo aromatico: anello  
pirimidinico fuso con un anello  
imidazolico

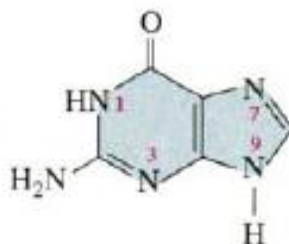
# Derivati purinici presenti negli acidi nucleici



Purina

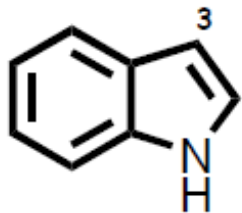


Adenina (A)

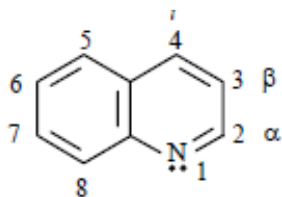


Guanina (G)

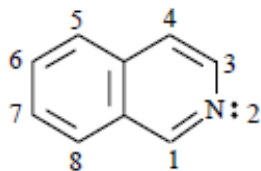
# Principali eterocicli benzocondensati



indolo



chinolina



isochinolina