

Modul Chem-Ma-B03

Vorlesung (2 SWS):

Chemie der Heterocyclen

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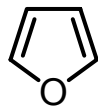
Technische Universität Dresden

Vorlesung 1: Heterocyclen-Chemie

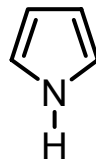
Gliederung

- I. Fünfring-Heterocyclen mit einem Heteroatom
- II. Fünfring-Heterocyclen mit mehreren Heteroatomen
- III. Benzokondensierte Fünfring-Heterocyclen
- IV. Sechsring-Heterocyclen mit einem Heteroatom
- V. Sechsring-Heterocyclen mit mehreren Heteroatomen
- VI. Benzokondensierte Sechsring-Heterocyclen
- VII. Klein- und Großring-Heterocyclen

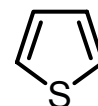
I. Fünfring-Heterocyclen mit einem Heteroatom



Furan

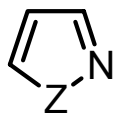


Pyrrol



Thiophen

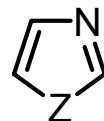
II. Fünfring-Heterocyclen mit mehreren Heteroatomen



Z = NH Pyrazol

Z = O Isoxazol

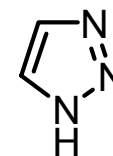
Z = S Isothiazol



Z = N Imidazol

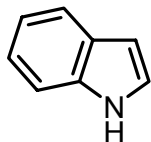
Z = O Oxazol

Z = S Thiazol

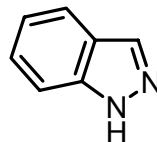


1,2,3-Triazol

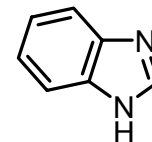
III. Benzokondensierte Fünfring-Heterocyclen



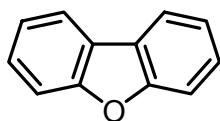
Indol



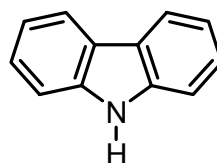
1H-Indazol



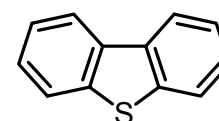
Benzimidazol



Dibenzofuran

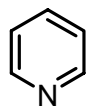


Carbazol

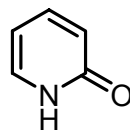


Dibenzothiophen

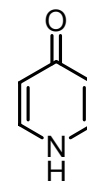
IV. Sechsring-Heterocyclen mit einem Heteroatom



Pyridin

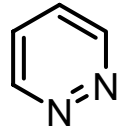


2-Pyridon

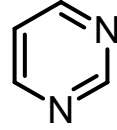


4-Pyridon

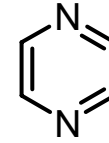
V. Sechsring-Heterocyclen mit mehreren Heteroatomen



Pyridazin

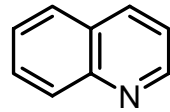


Pyrimidin

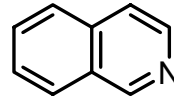


Pyrazin

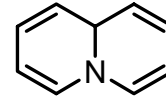
VI. Benzokondensierte Sechsring-Heterocyclen



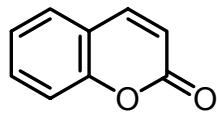
Chinolin



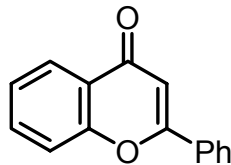
Isochinolin



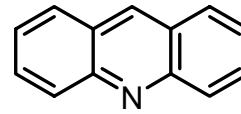
Chinolizin



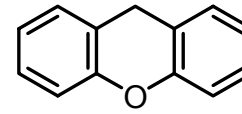
Coumarin



Flavon



Acridin



Xanthen

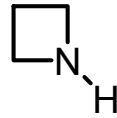
VII. Klein- und Großring-Heterocyclen



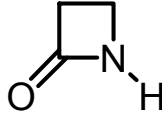
Aziridin



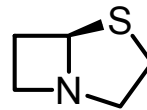
Oxiran



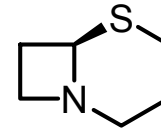
Azetidin



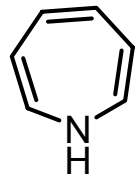
β -Lactam



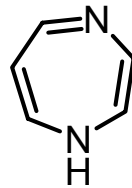
Penam



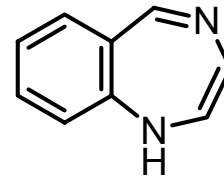
Cepham



Azepin



1,4-Diazepin



1,4-Benzodiazepin