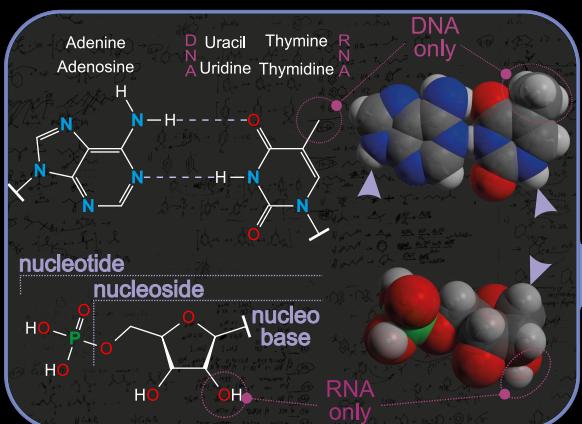
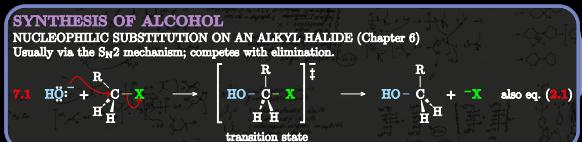


**Carbohydrates.** Pyramids of 15 aldoses and 7 ketoses in D-form, up to 6 carbons; two forms and their 4 notations of D-glucose; sedoheptulose

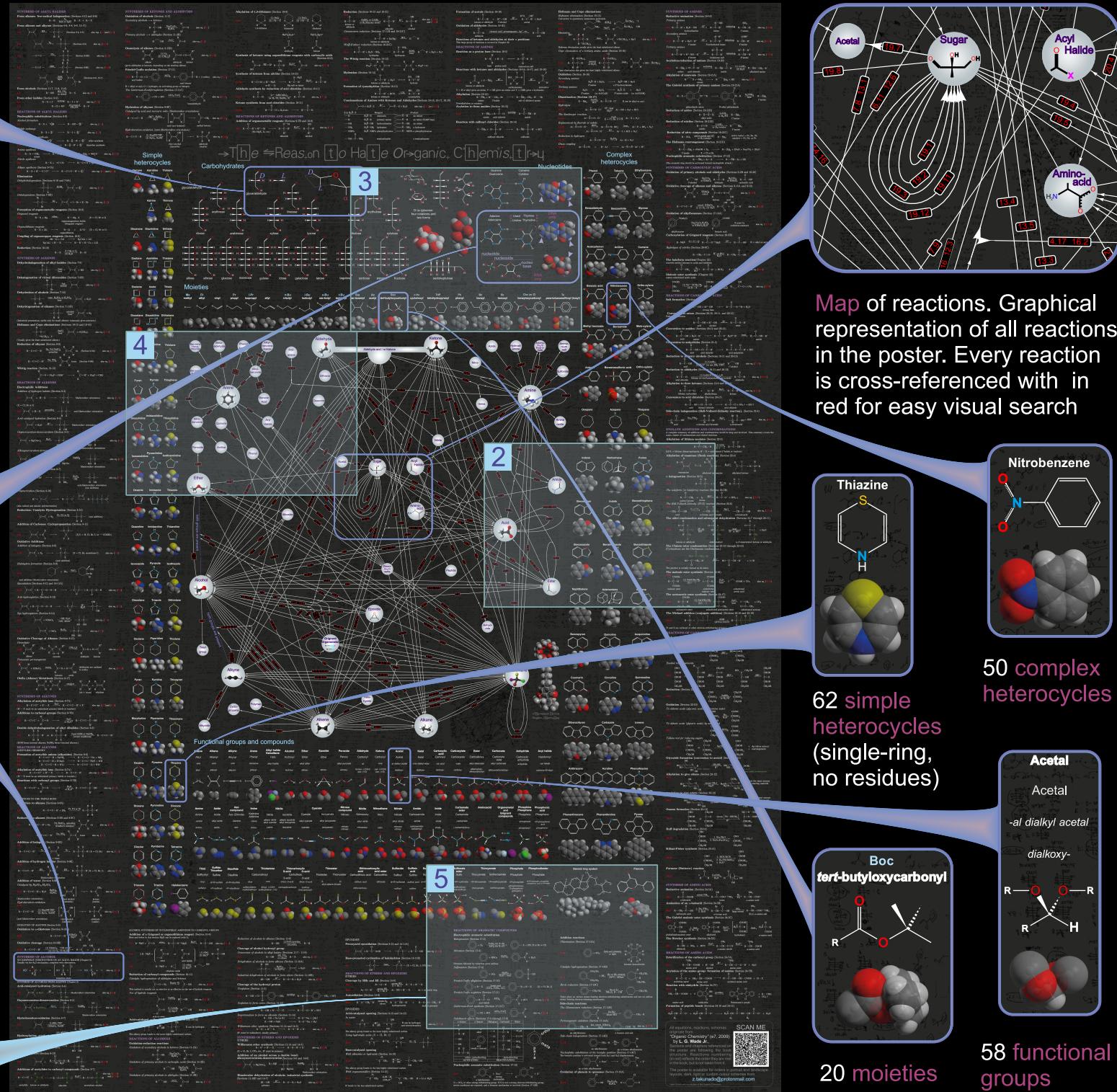


**Nucleotides.** 5 monomer units of DNA and RNA.

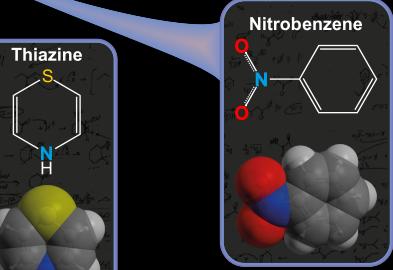


**Reactions.** More than 200 of major reactions grouped accordingly to the compounds involved. Mostly taken from: "Organic Chemistry" (e7, 2009) by L. G. Wade Jr., Smallest text is 9pt and 6pt if printed in B0 and A0 sizes respectively.

Sample areas in the next four pages are 1:1 extractions from B0 print.

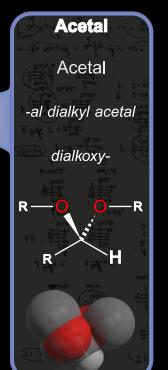


**Map of reactions.** Graphical representation of all reactions in the poster. Every reaction is cross-referenced with in red for easy visual search



50 complex heterocycles

62 simple heterocycles  
(single-ring, no residues)

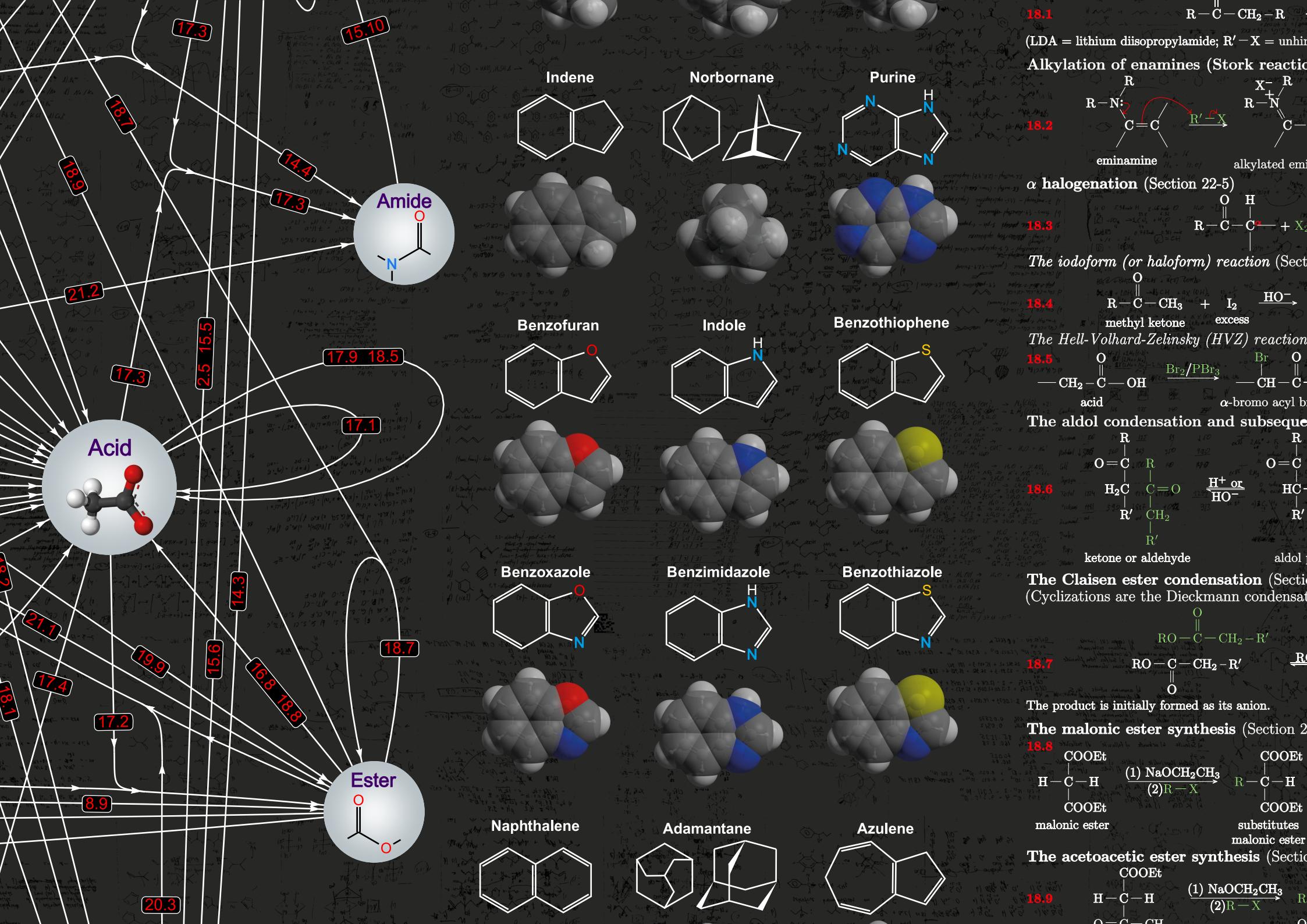


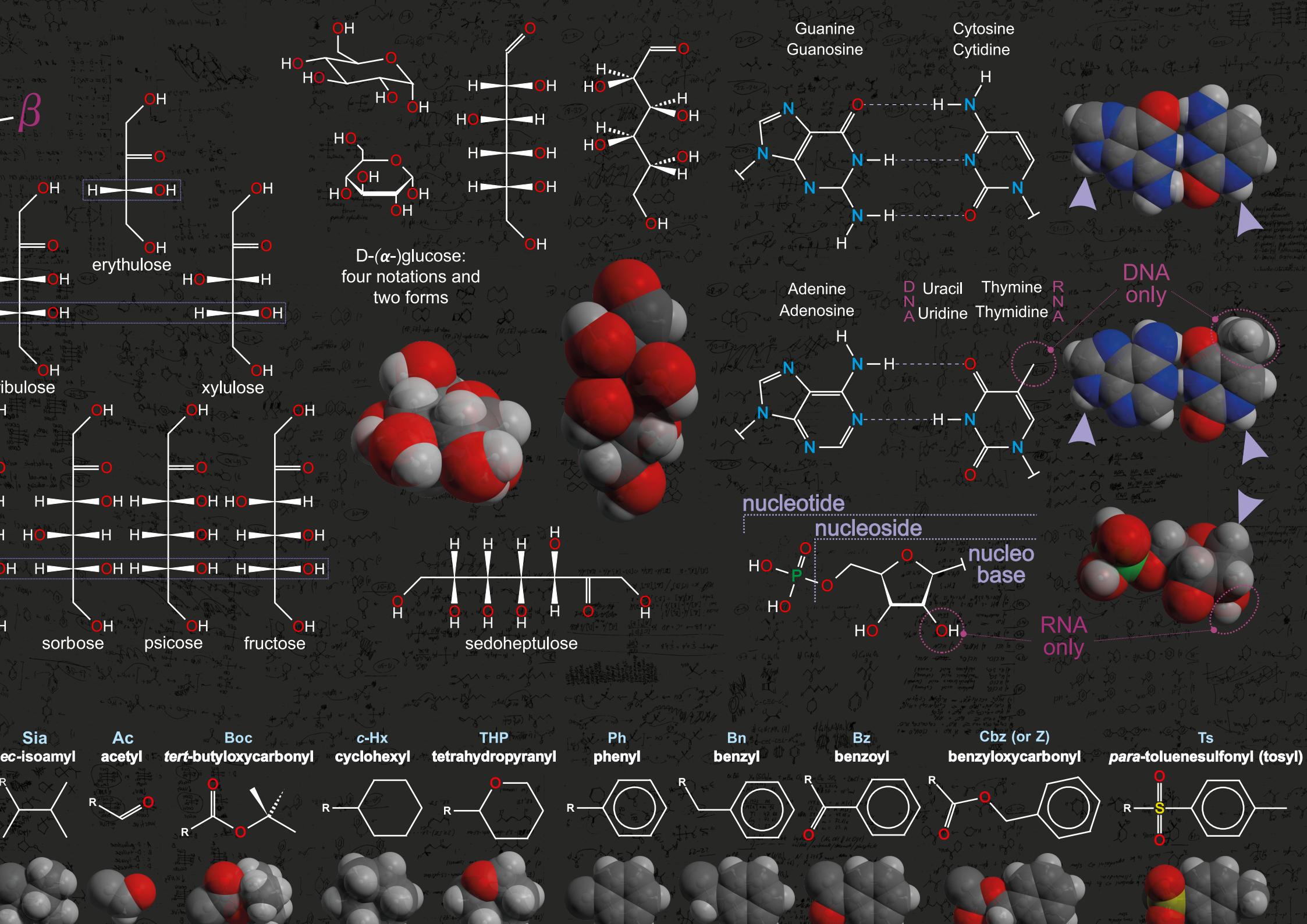
58 functional groups

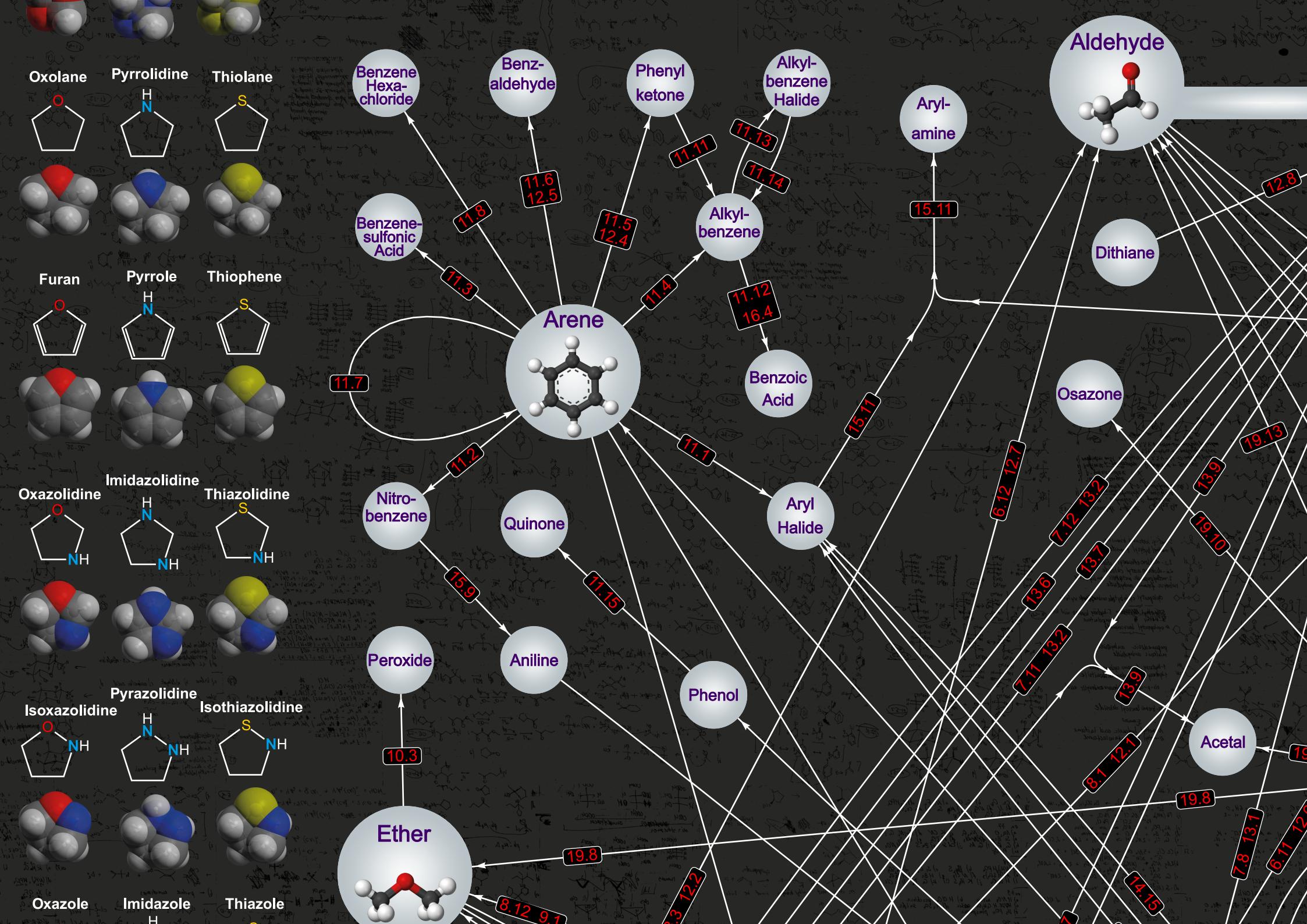
20 moieties

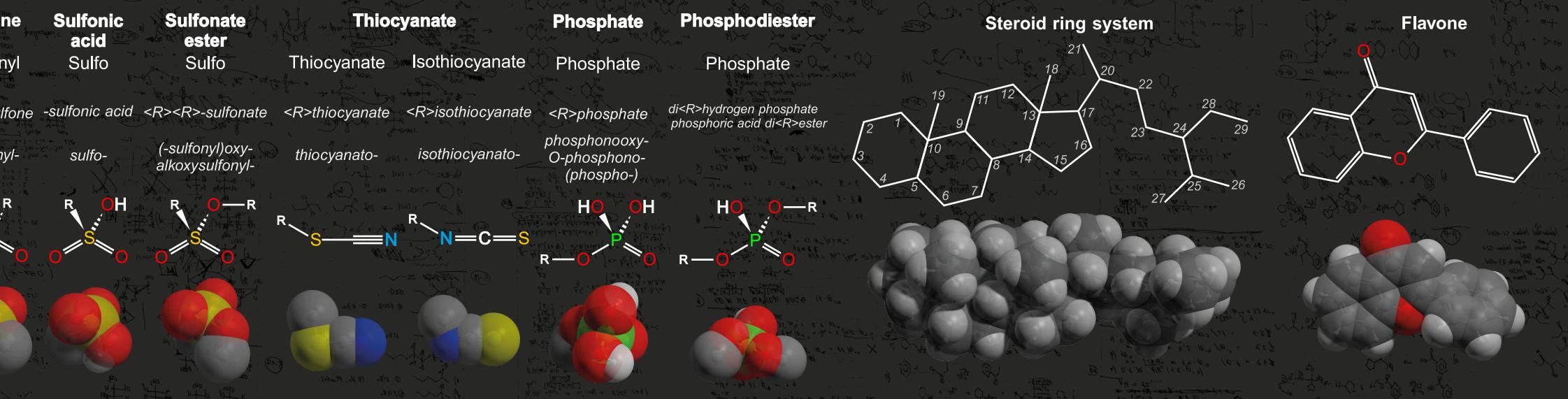
SCAN ME







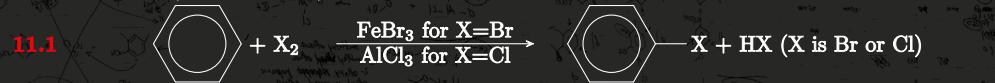




## REACTIONS OF AROMATIC COMPOUNDS

### Electrophilic aromatic substitution

#### Halogenation (Section 17-2)

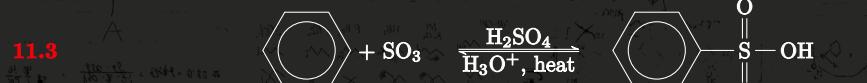


#### Nitration (Section 17-3)



Nitration followed by reduction gives anilines.

#### Sulfonation (Section 17-4)



#### Friedel-Crafts alkylation (Section 17-10)

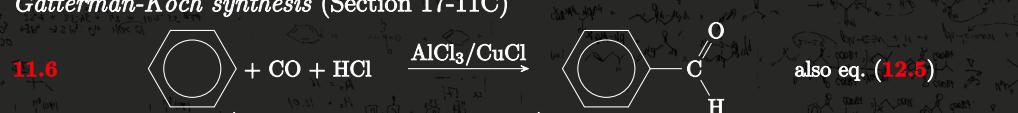


#### Friedel-Crafts acylation (Section 17-11)



also eq. (12.4)

#### Gatterman-Koch synthesis (Section 17-11C)



also eq. (12.5)

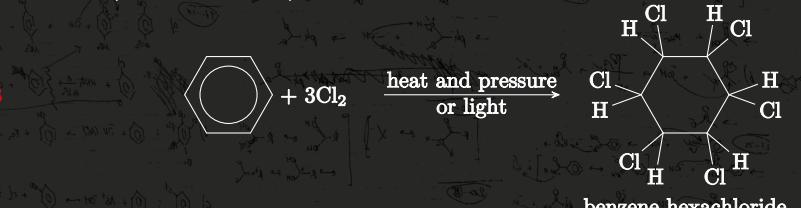
#### Substituent effects (Sections 17-5 through 17-9)

$\pi$ donors	$\sigma$ donors	Halogens	Carbonyls	Other
$\text{O}^-$				

also eq. (7.14)

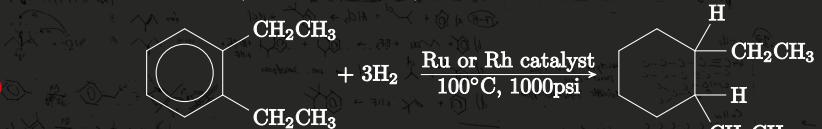
### Addition reactions

#### Chlorination (Section 17-13A)



benzene hexachloride

#### Catalytic hydrogenation (Section 17-13B)



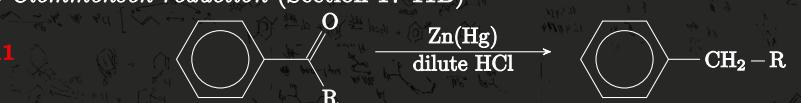
#### Birch reduction (Section 17-13C)



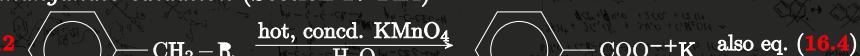
Takes place on carbon atoms bearing electron-withdrawing substituents and not on carbon atoms bearing electron-releasing substituents.

### Side-chain reactions

#### The Clemmensen reduction (Section 17-11B)



#### Permanganate oxidation (Section 17-14A)



All equations, reactions, schemas  
originate from

*“Organic Chemistry” (e7, 2009)*

by L. G. Wade Jr.,

Sections and chapters referenced on  
the poster are following the book  
structure. Reactions numbering  
(in red) reflects the order they are met  
in the book, but is not taken from it.

The poster is available for orders in portrait and landscape  
layouts, dark, light or custom colour schemes from

[takunado@proton.me](mailto:takunado@proton.me)

Here I finish with my studies of the Organic Chemistry.

SCAN ME

