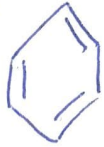
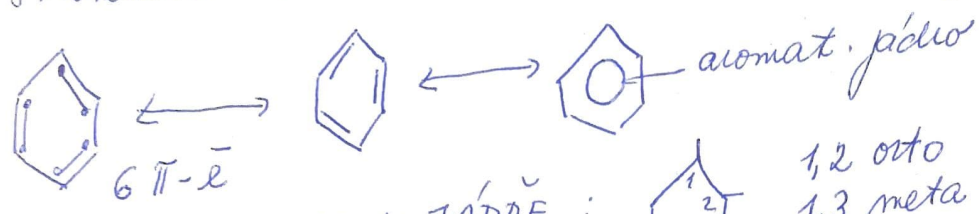


# AROMATICKÉ RH (AROMÁTY)

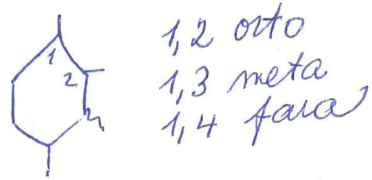
## PODMÍNKY AROMATIVITY:

- 1) Molekula cyklická, atomy vyhraňující cyklus leží v 1 rovině
- 2) musí existovat nejméně 2 rezonanční struktury, vzniklé posunem  $\pi$ -elektronů
- 3) Počet  $\pi$ - $\pi$  musí vyhovovat Hückel. pravidlu  $4n+2$ , kde  $n$  je 0 nebo celé kladné číslo.

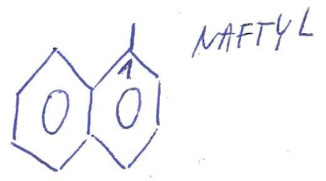
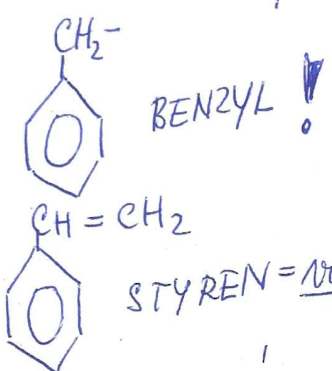
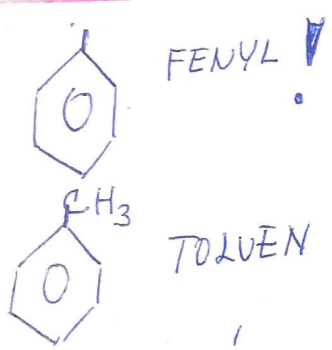
Struktura benzenu - Němec Kekulé   $C_6H_6$



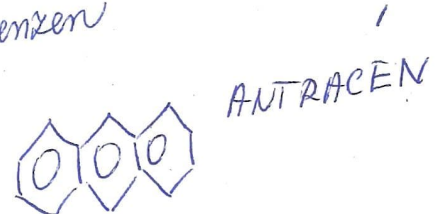
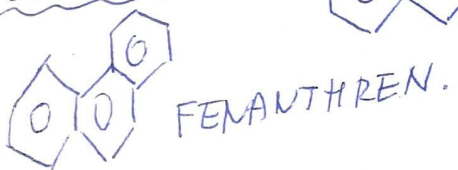
## POLOHY NA AROM. JÁDŘE:



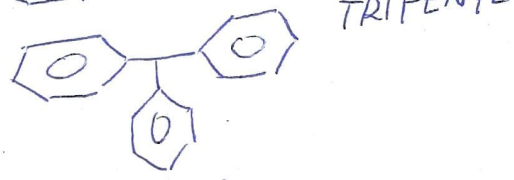
## ARYL (Y) R



konzenzované:



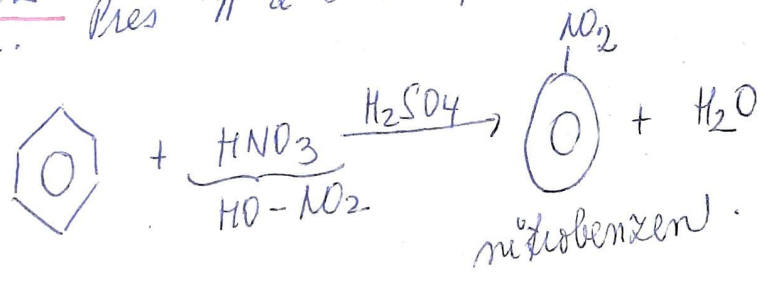
nekonz.



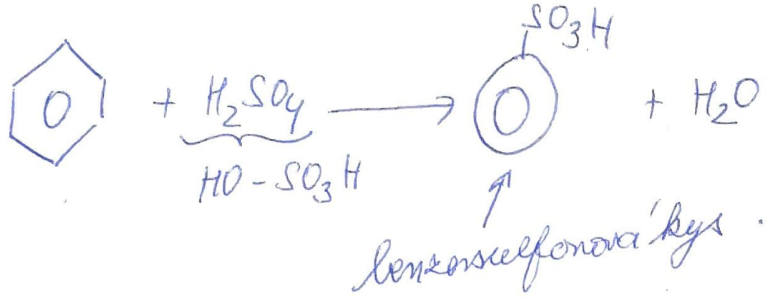
a další.

Typ. SE elektrofilní. Přes  $\pi$  a  $\sigma$  komplex.

## SE: NITRACE



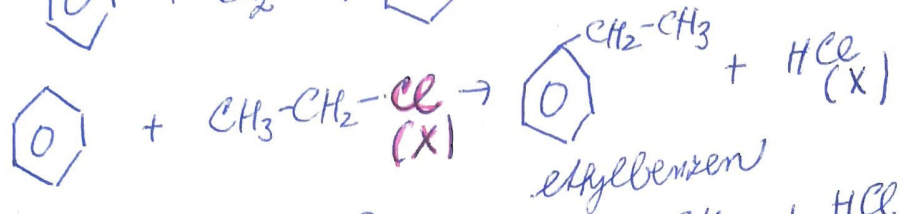
SE : SULFONACE :



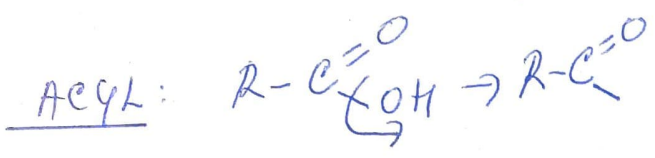
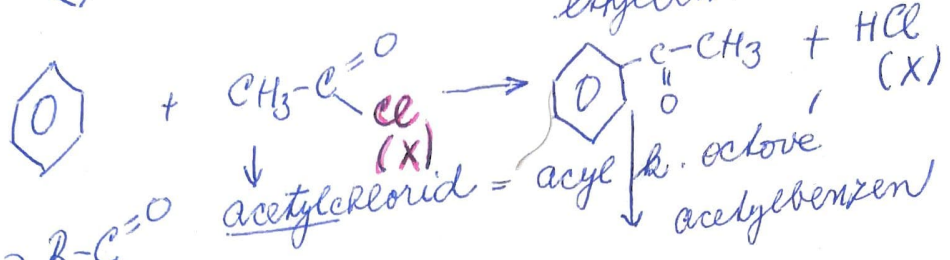
SE : HALOGENACE :



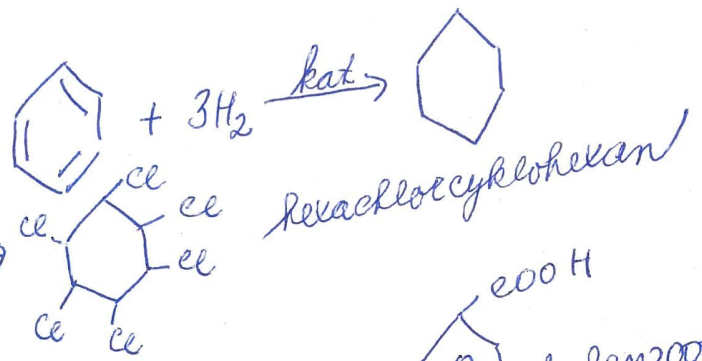
SE : ALKYLACE :  
R



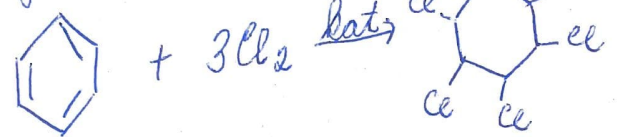
SE : ACYLACE :



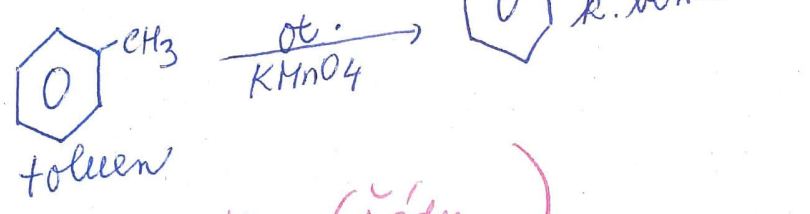
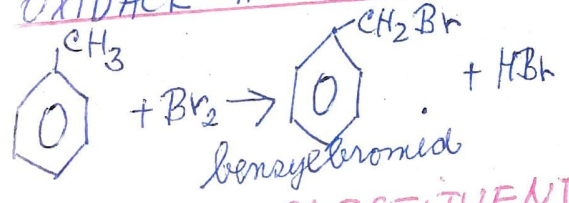
AR (radikálová adice) :  
Hydrogenace :



chlorace :



OXIDACE AROMATŮ : např.



SUBSTITUENTY I. II. třídy (všechny)

I. tr. mají vstoup dalšího substituentu do polohy ORTO a PARA (1,2) (1,4)  
mají + Mezonerní efekt, skupiny: OH<sup>-</sup>, NH<sub>2</sub><sup>-</sup>, SH<sup>-</sup>, X<sup>-</sup> (halogeny)  
R<sup>+</sup> (alkyly)

