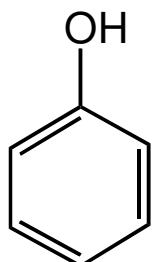
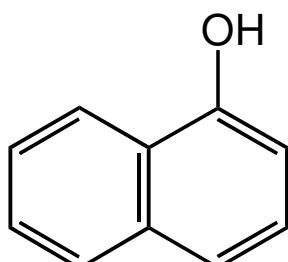


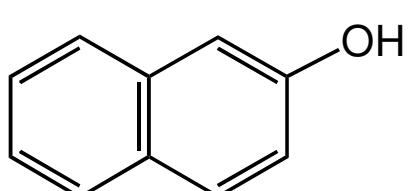
FENOLOK



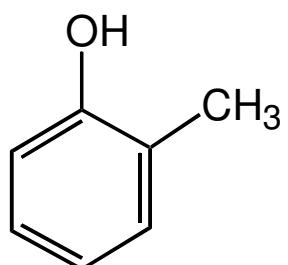
fenol



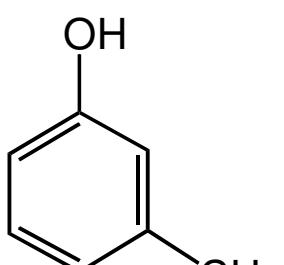
1-naftol



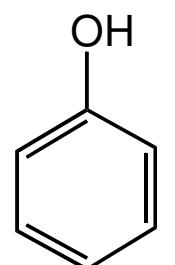
2-naftol



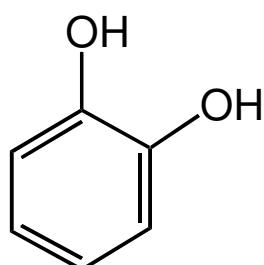
o-krezol



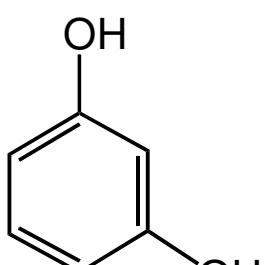
m-krezol



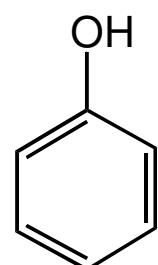
p-krezol



pirokatechin

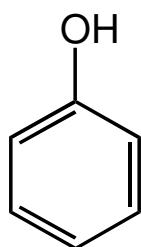


rezorcin

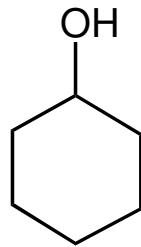


hidrokinon

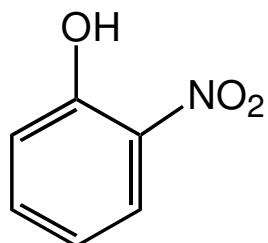
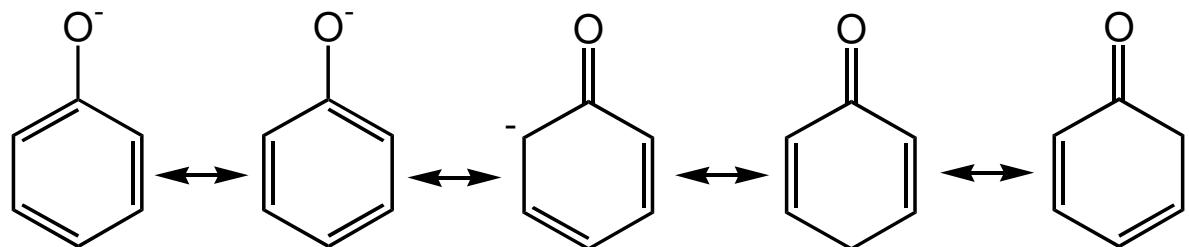
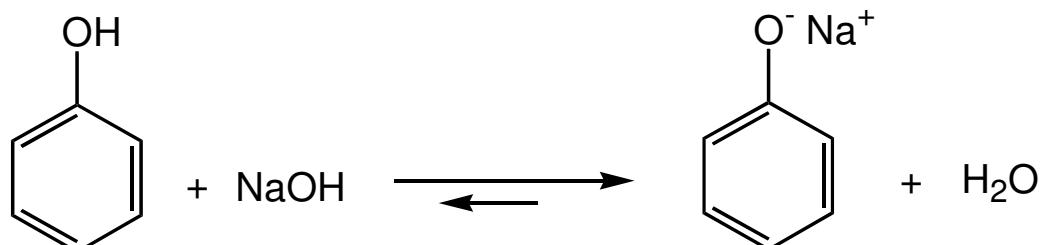
A fenolok savi jellege



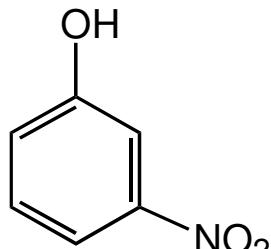
pK=9.9



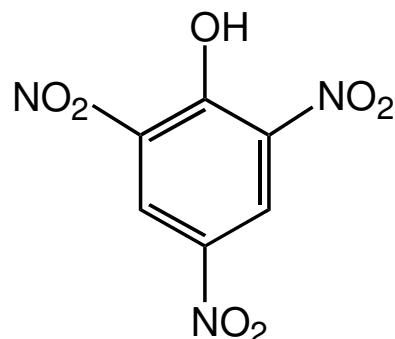
pK=18



pK 7.2

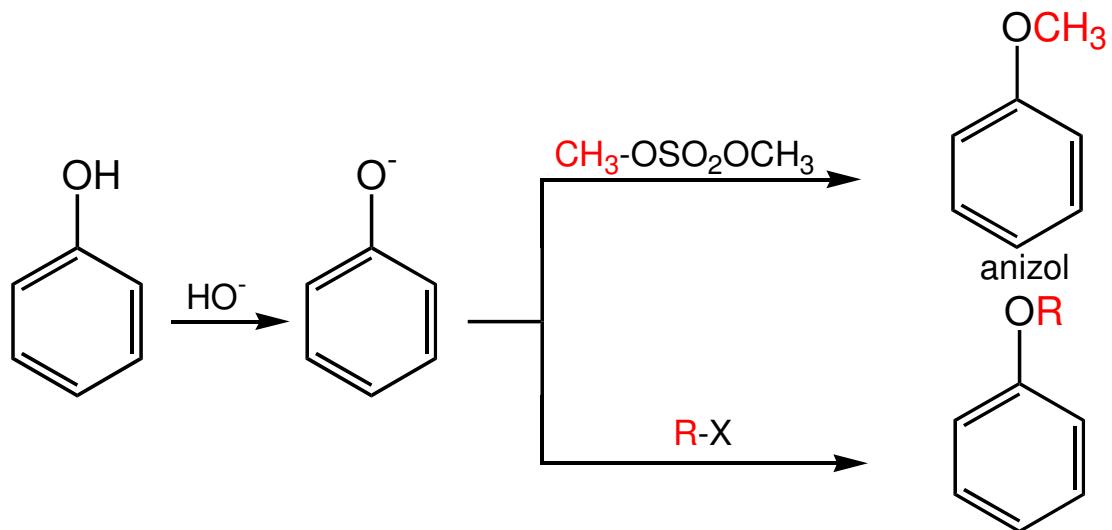


8.3

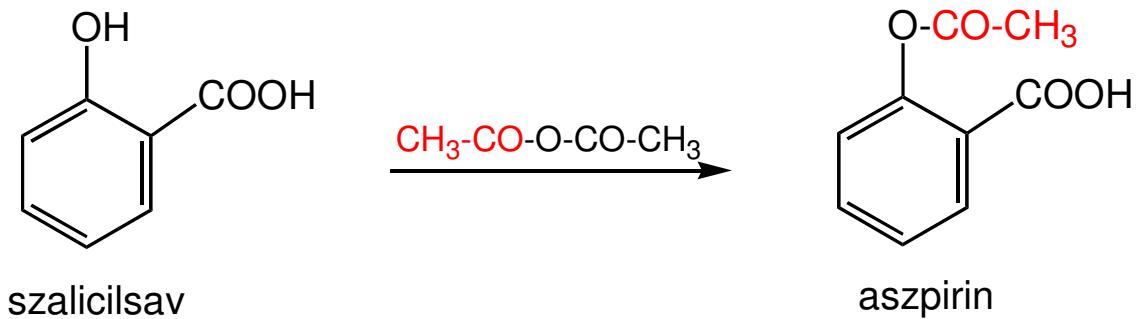
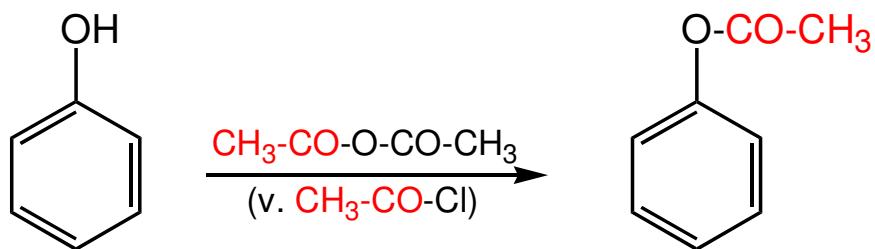


0.4

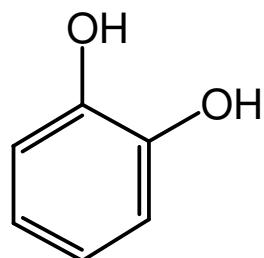
Alkilezés



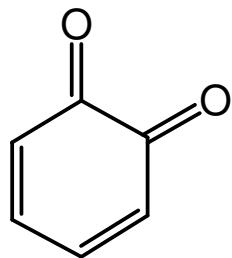
Acilezés



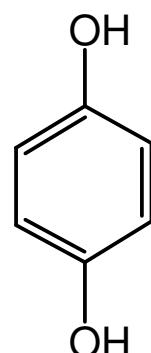
A fenolok oxidációja (kinonok)



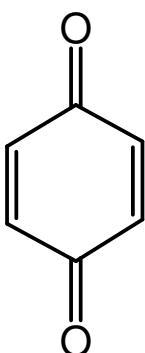
ox.
red.



pirokatechin

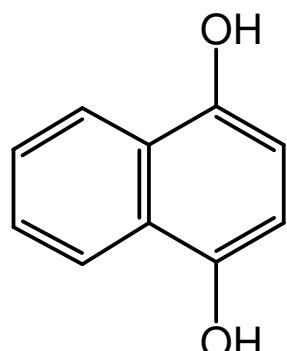


ox.
red.

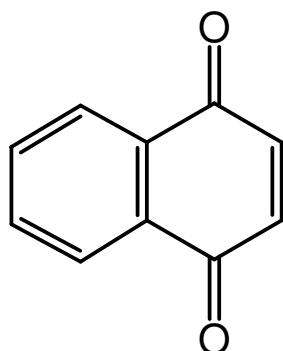


$\epsilon_0 = 715 \text{ mV}$

hidrokinon



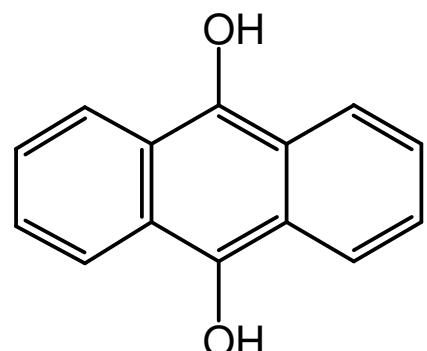
ox.
red.



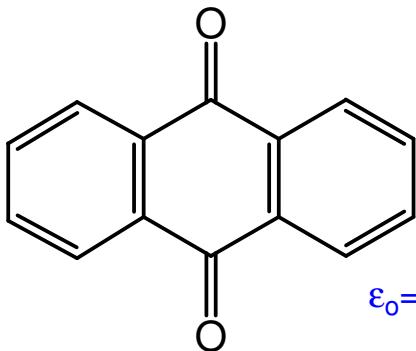
$\epsilon_0 = 484 \text{ mV}$

1,4-dihidroxi-naftalin

1,4-naftokinon



ox.
red.

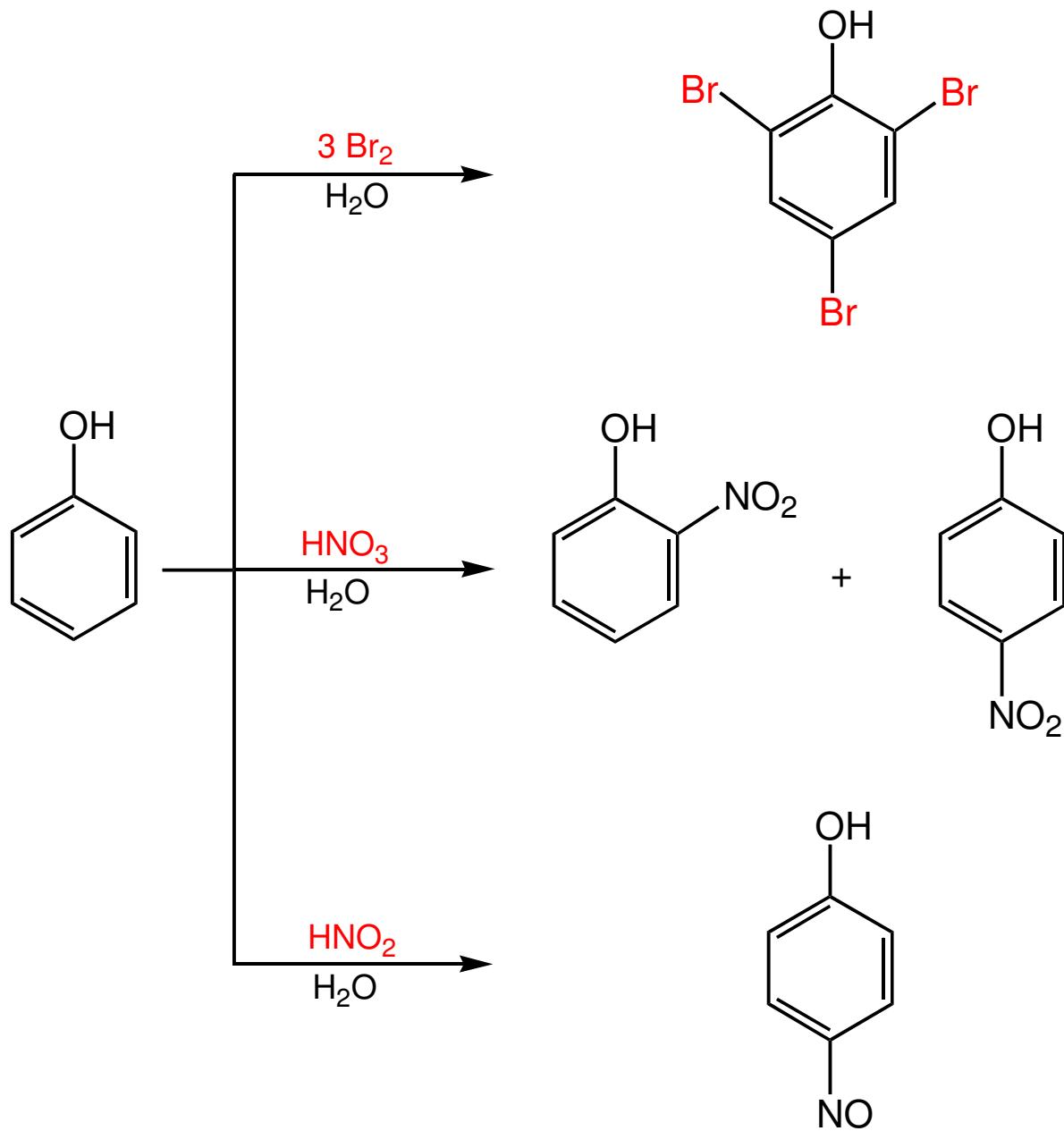


$\epsilon_0 = 154 \text{ mV}$

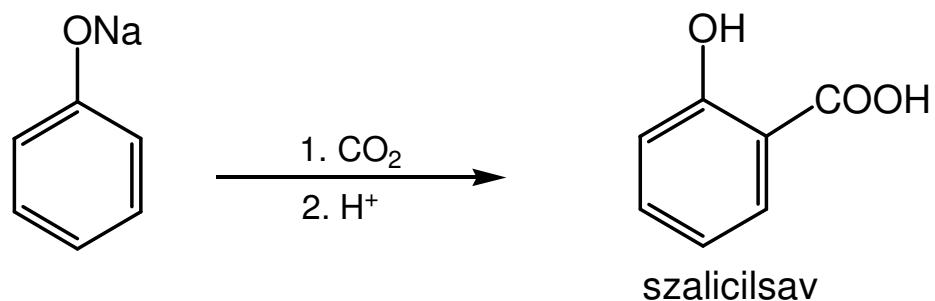
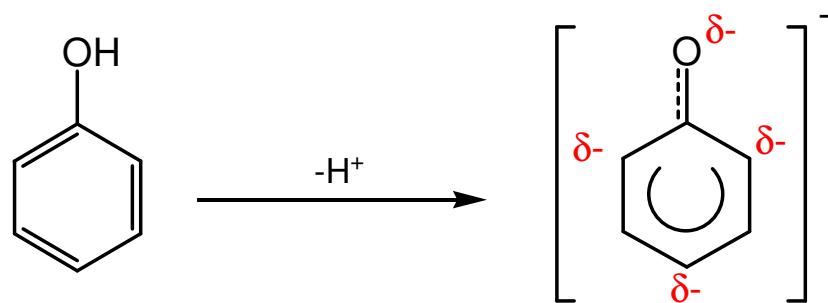
9,10-dihidroxi-antracén

9,10-antrakinon

A fenolok elektrofil szubsztitúciós reakciói



A fenoláció reaktivitása



Mechanismus

