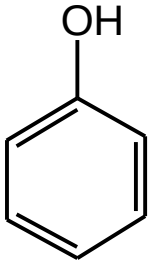
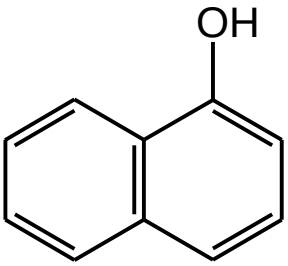
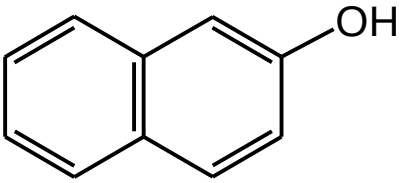
FENOLOK



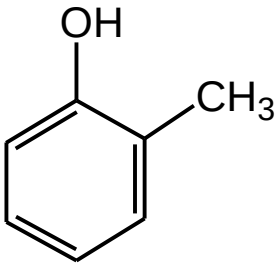
fenol



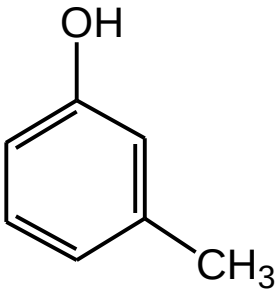
1-naftol



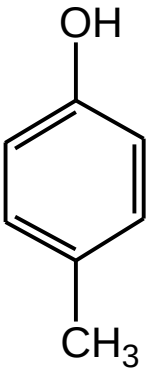
2-naftol



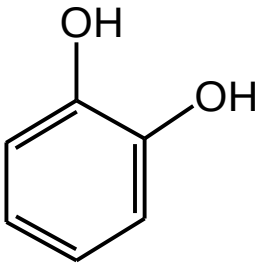
o-krezol



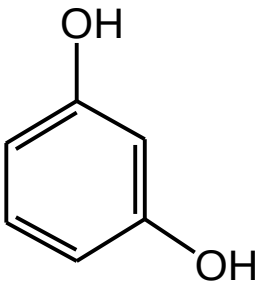
m-krezol



p-krezol



pirokatechin



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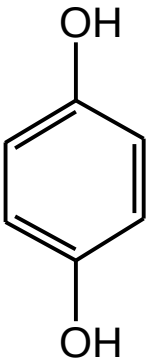
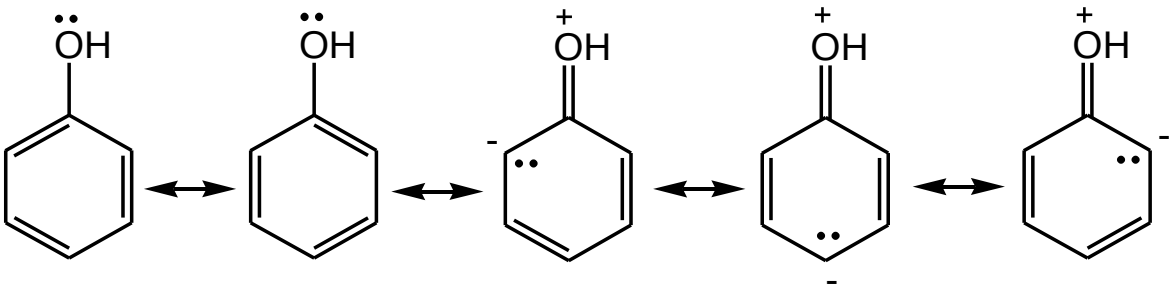
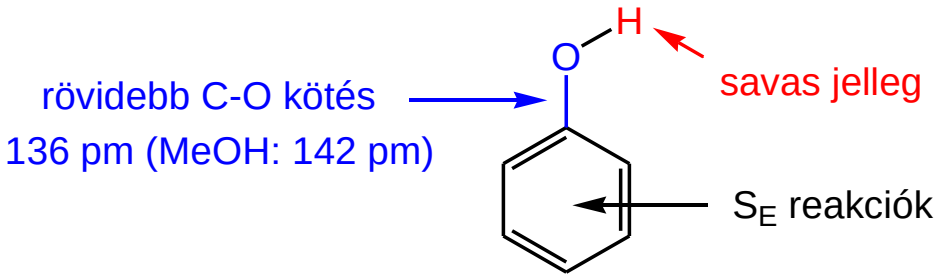


hidrokinon

A fenol szerkezete

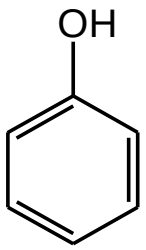




Fizikai tulajdonságok

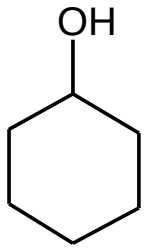
	mt.	op. (°C)	vízoldhatóság 25 °C, g/100 ml
toluol ($C_6H_5CH_3$)	92	-95	0,05
fluorbenzol (C_6H_5F)	96	-41	0,2
fenol (C_6H_5OH)	94	43	8,2

A fenolok savi jellege



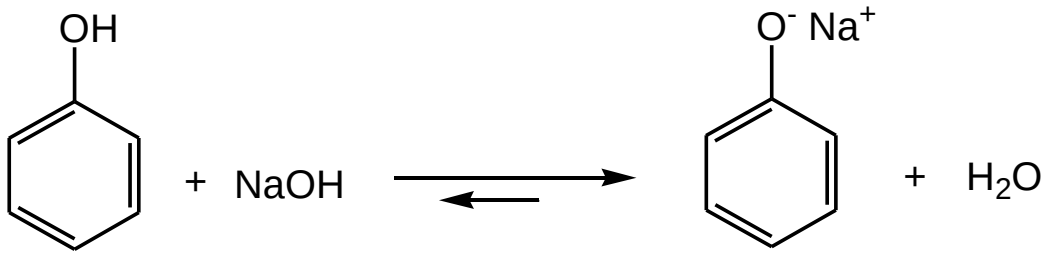
fenol

pK_s=9,9



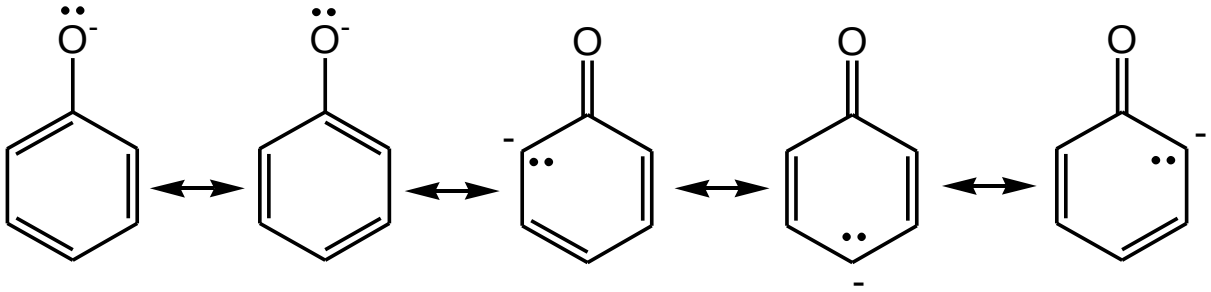
ciklohexanol

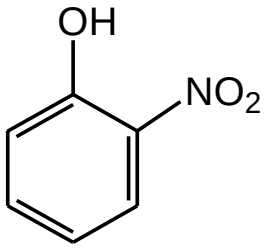
pK_s=18



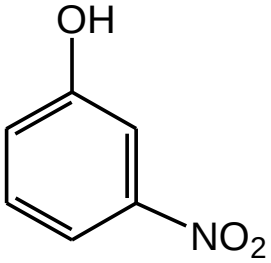
nátrium-fenolát

Fenolát-ion szerkezete

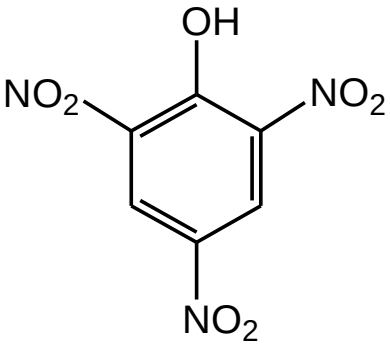




2-nitrofenol



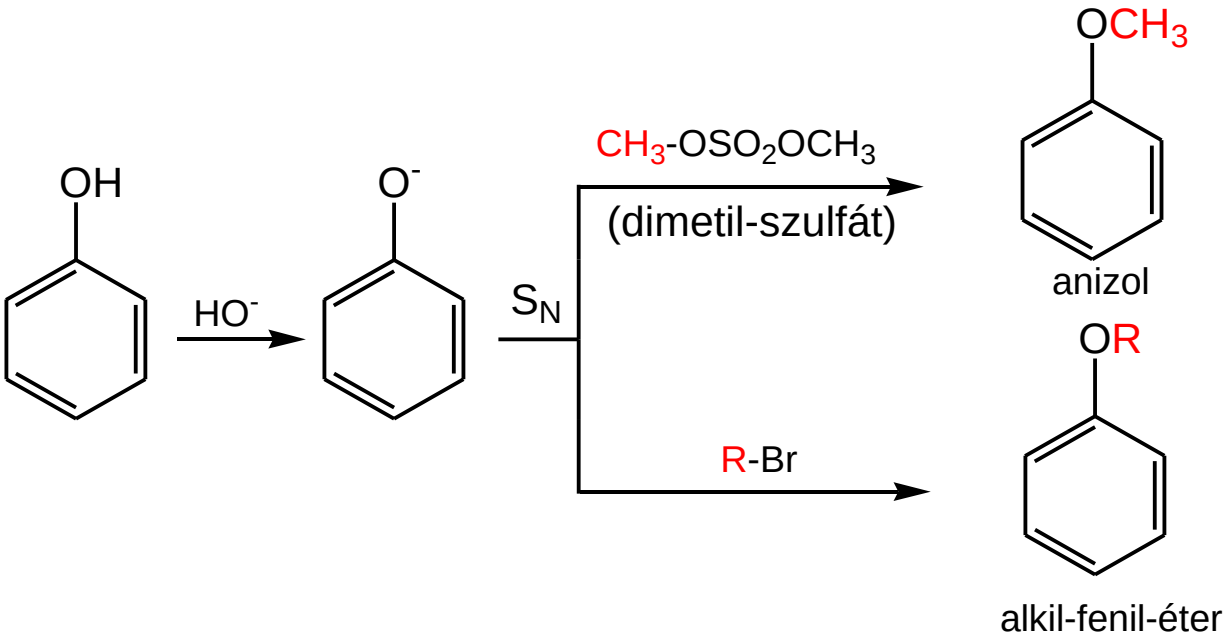
3-nitrofenol



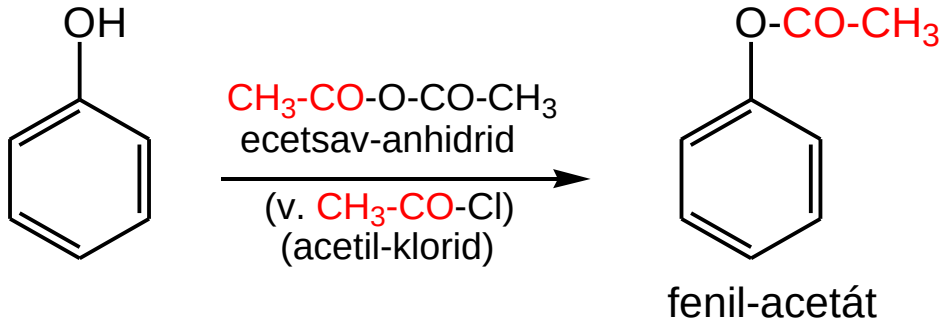
2,4,6-trinitrofenol
pikrinsav

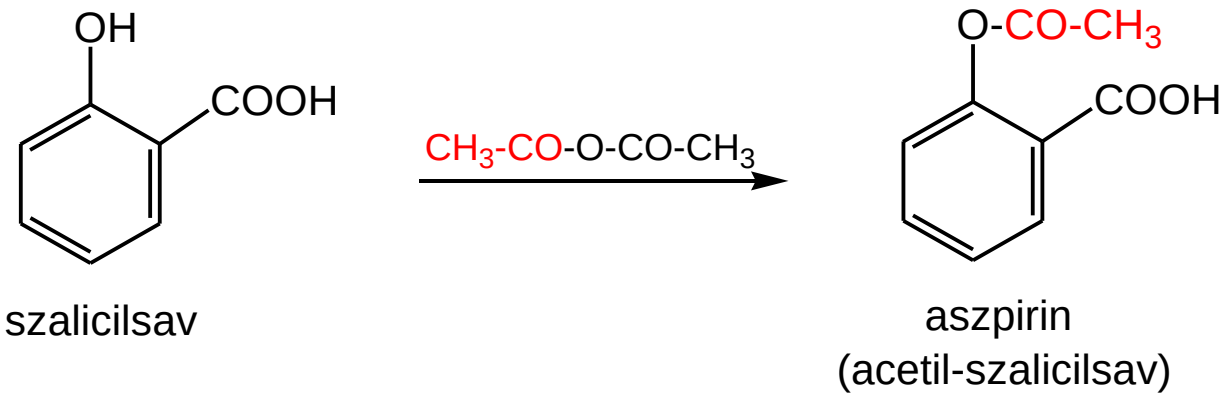
pK_s 7,2 8,3 0,4

Alkilezés (feniléterek előállítása)

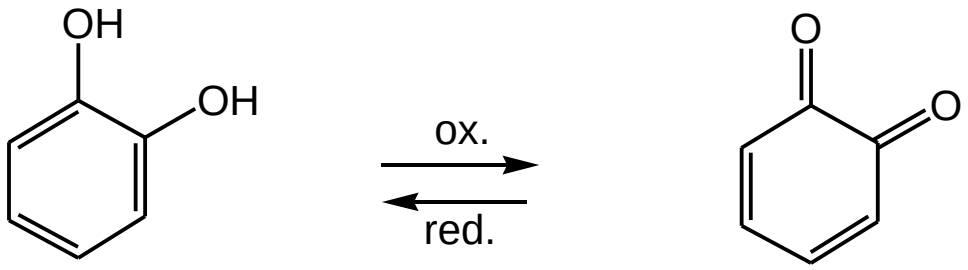


Acilezés (fenilészterek előállítása)

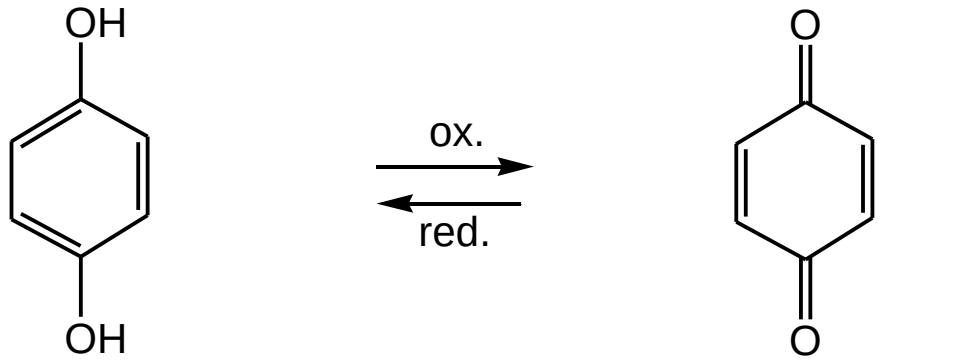




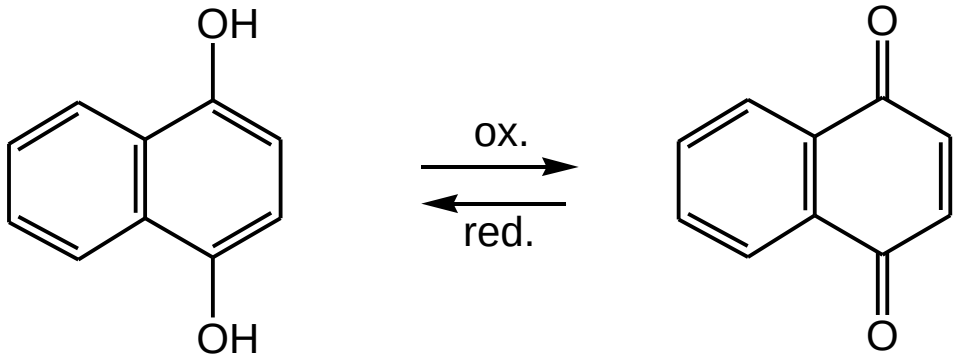
A fenolok oxidációja (kinonok)



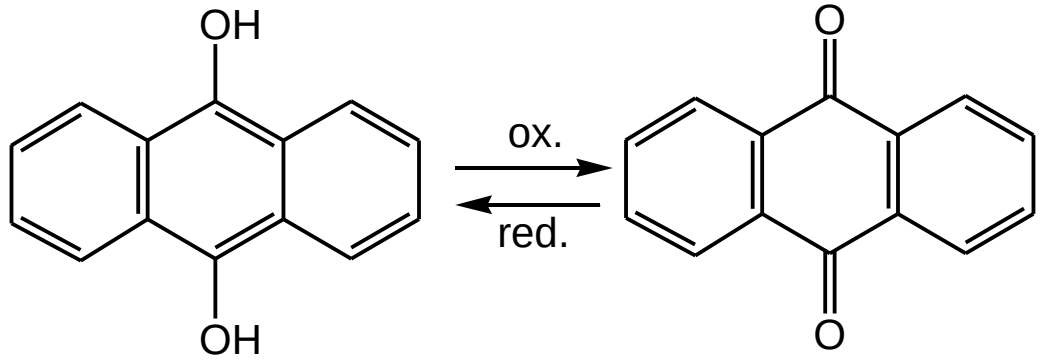
pirokatechin o-benzokinon



hidrokinon p-benzokinon



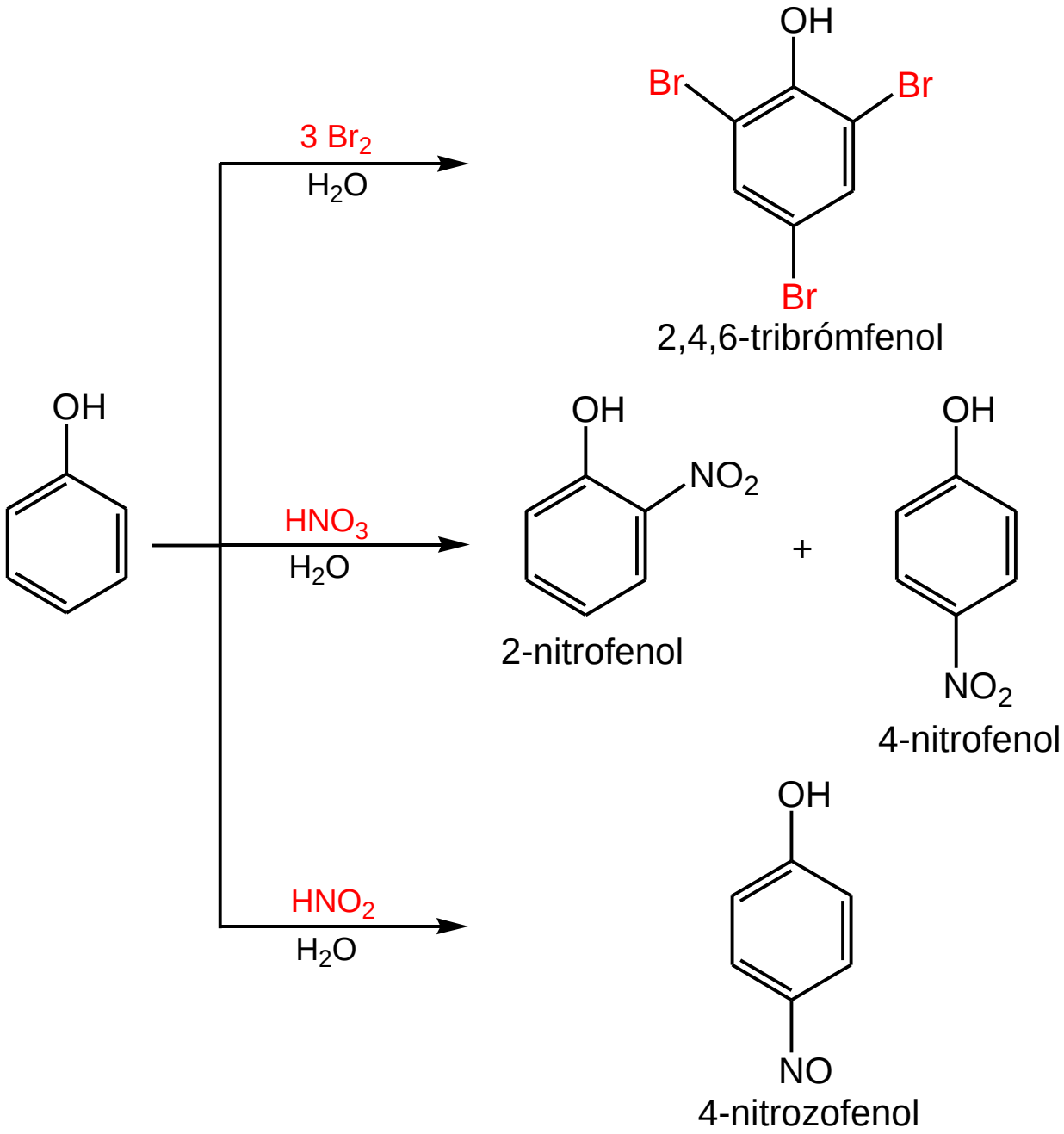
1,4-dihidroxi-naftalin 1,4-naftokinon



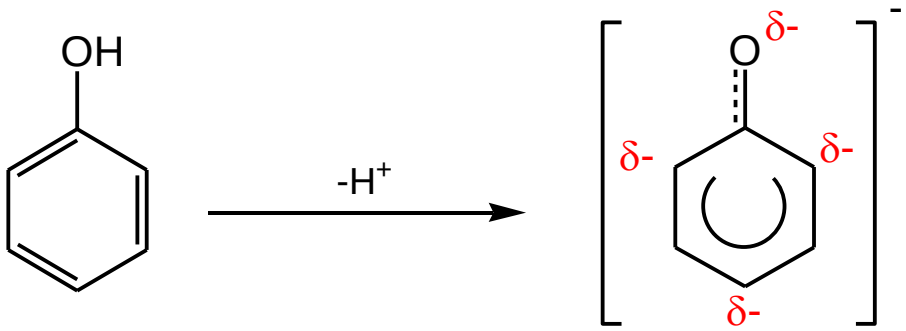
9,10-dihidroxi-antracén 9,10-antrakinon

A fenolok elektrofil szubsztitúciós reakciói

OH-csoport (+K-effektus) ⟶ aktivál; orto, para-irányító

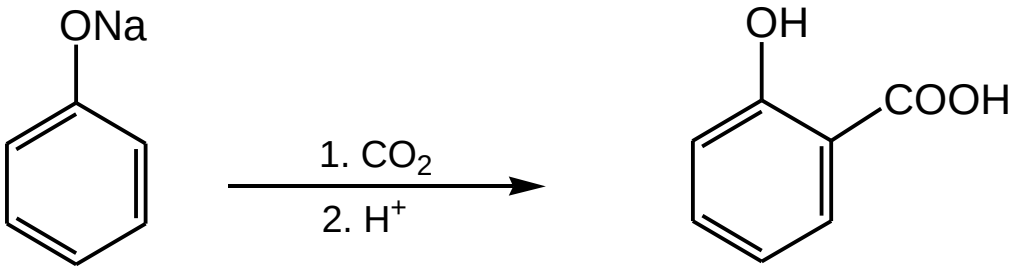


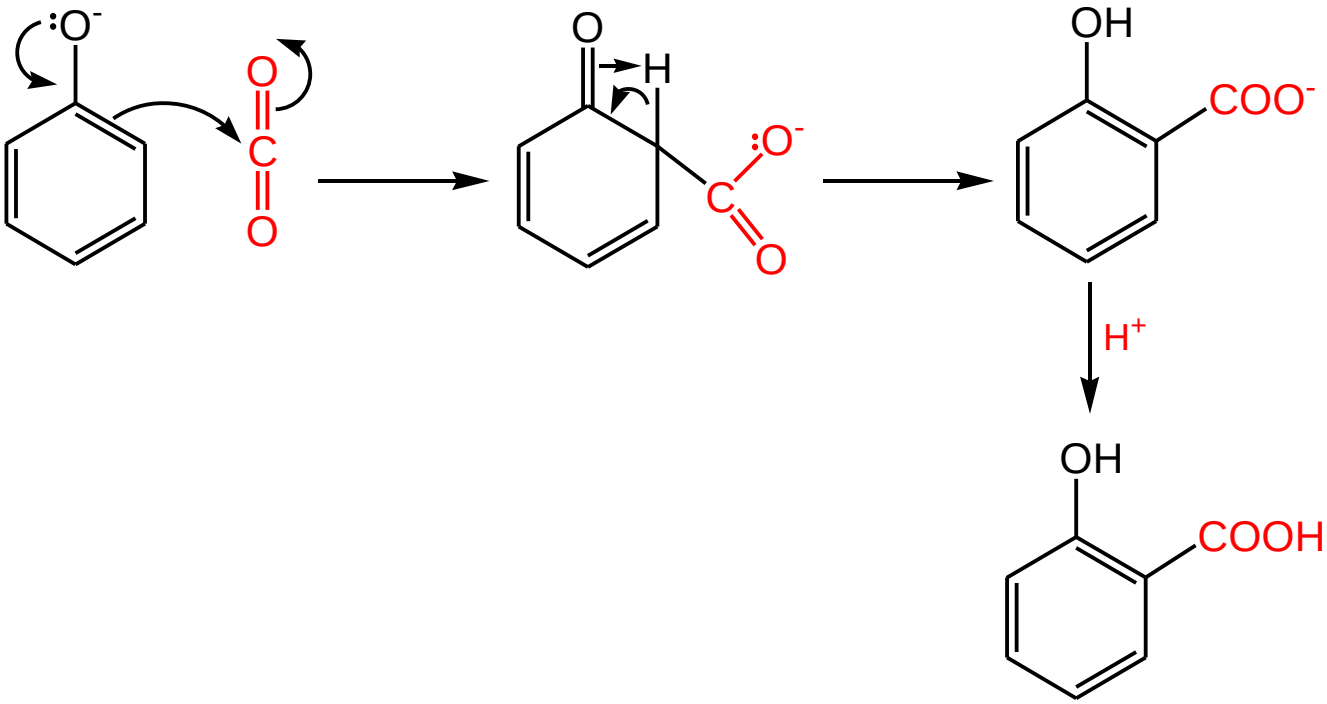
A fenolátion reaktivitása



reaktívabb S_E reakcióban

Példa



szalicilsav

Mechanizmus