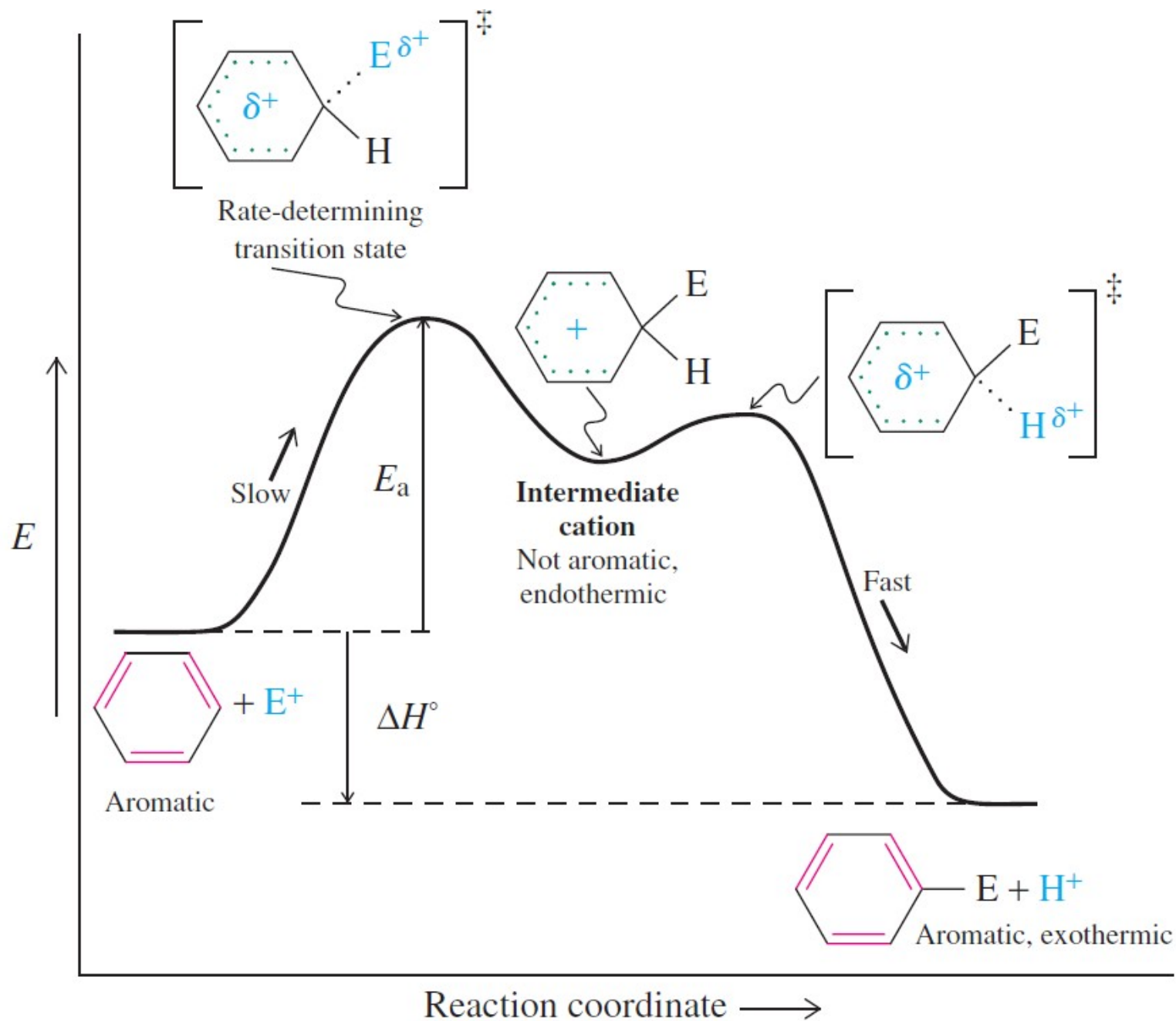
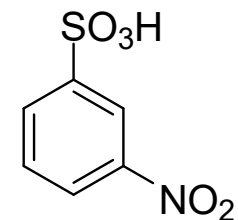
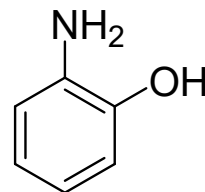
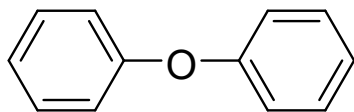
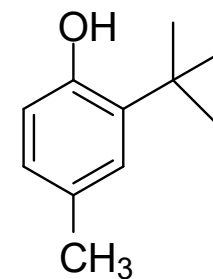
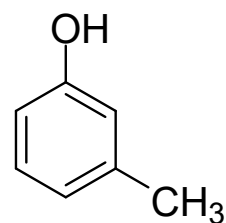
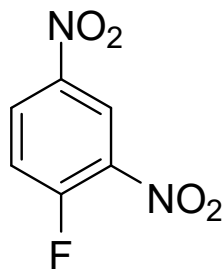
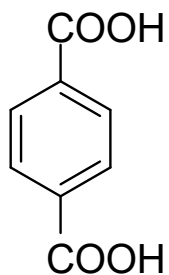


AROMATICKÉ SLOUČENINY

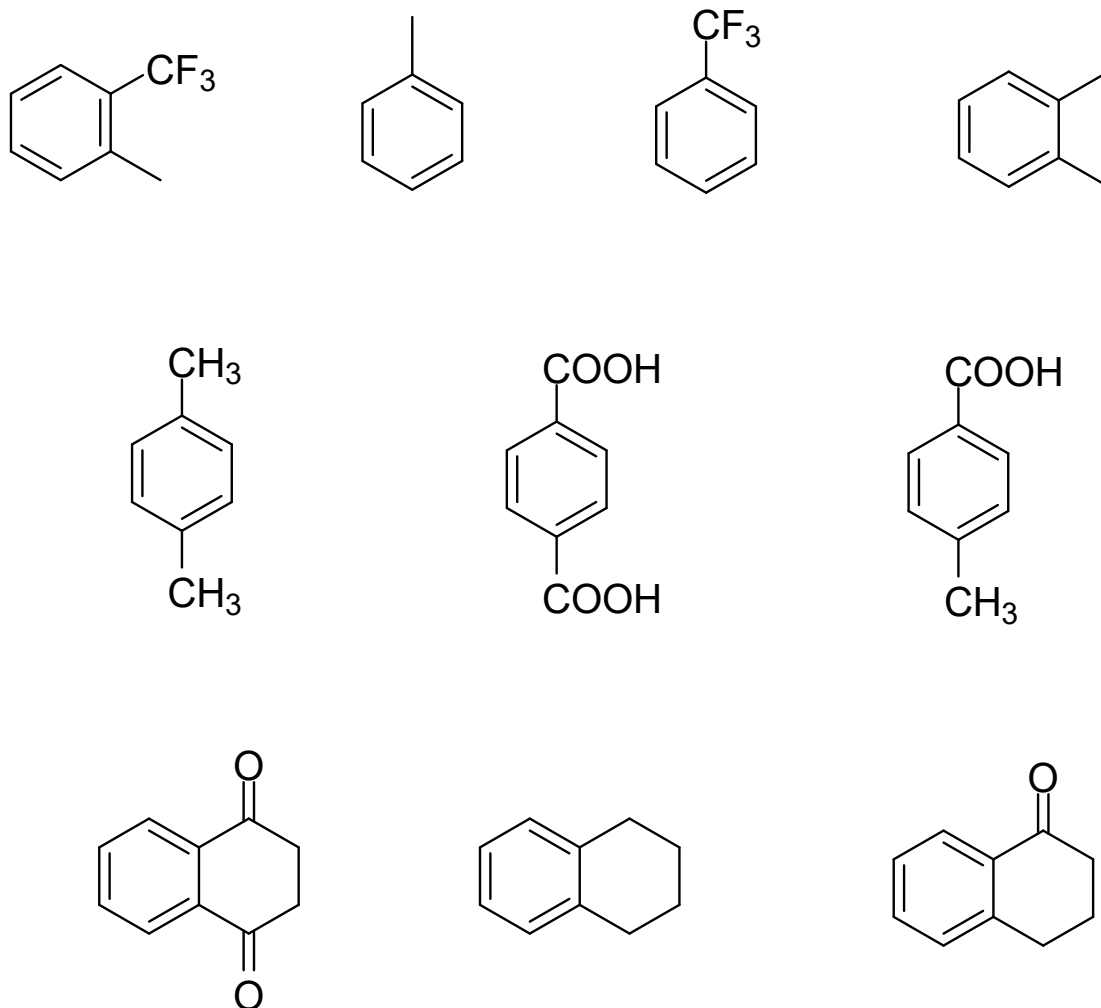




Určete, zda je benzenové jádro aktivované nebo deaktivované pro elektrofilní aromatickou substituci



Sloučeniny seřadte podle jejich vzrůstající reaktivity při elektrofilní aromatické substituci

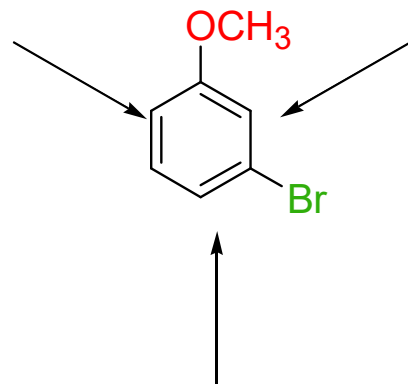
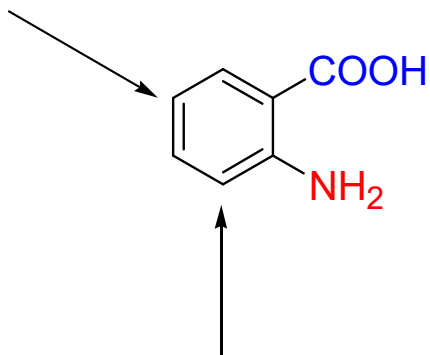
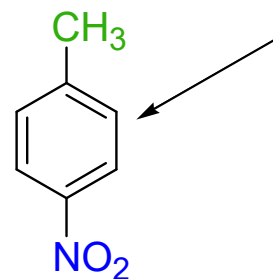
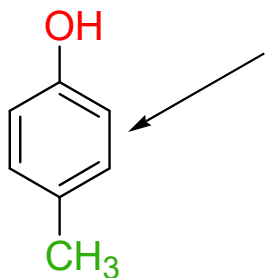


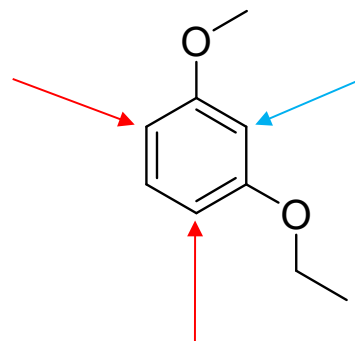
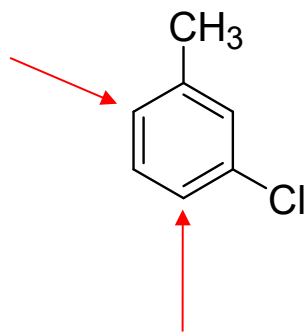
aktivující skupiny

alkyly aktivující slabě

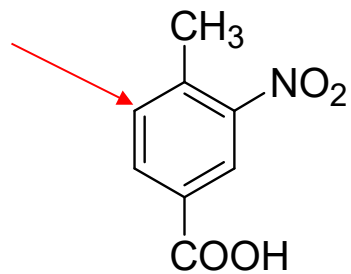
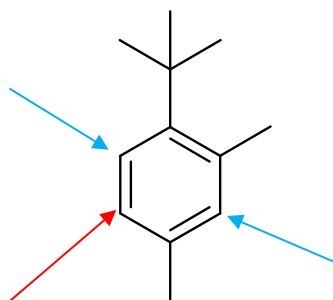
deaktivující skupiny

halogeny o-, p- dirigující
ale deaktivující

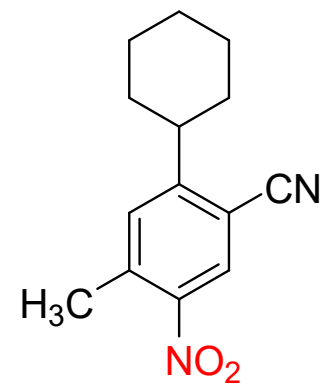
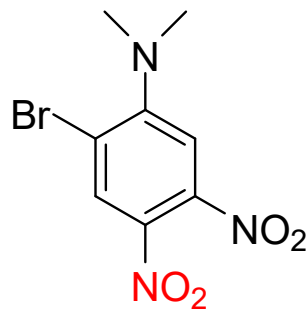
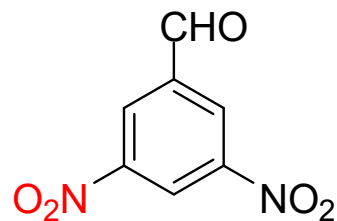
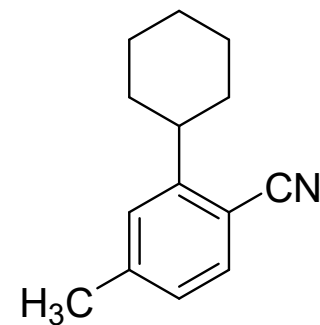
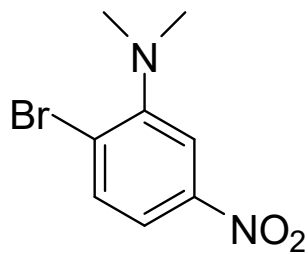
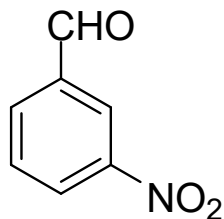




Stérická zábrana



Předpovězte produkt mononitrační reakce



a) Nitrace

b) Sulfonace

c) Halogenace

d) Friedl-Craftsova alkylace a acylace

1) ne na aromátech se silnými akceptory (CN, NO₂)

2) nereagují aromatické halogenderiváty a vinylhalogenidy

3) problém vícenásobné substituce, protože zavedením

alkylu je produkt pro další elektrofilní substituci reaktivnější

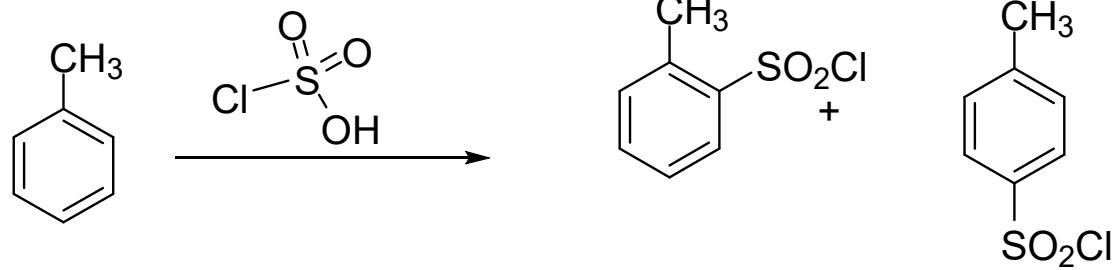
4) přesmyky karbokationtů

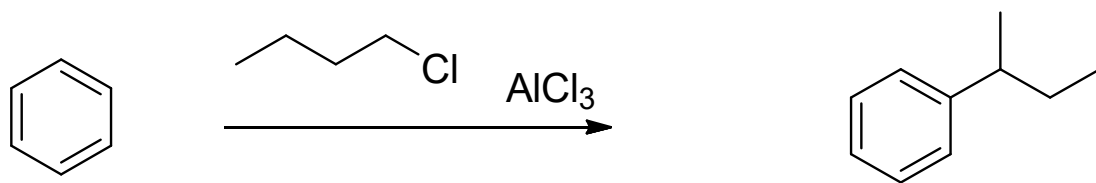
5) nelze provádět na substrátech s aminoskupinou, komplexace

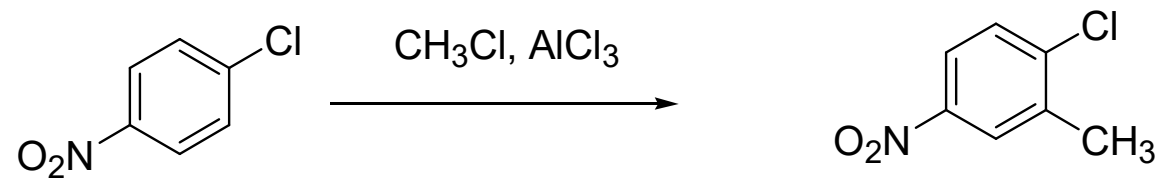
Lewisovy kyseliny na volný elektronový pár dusíku

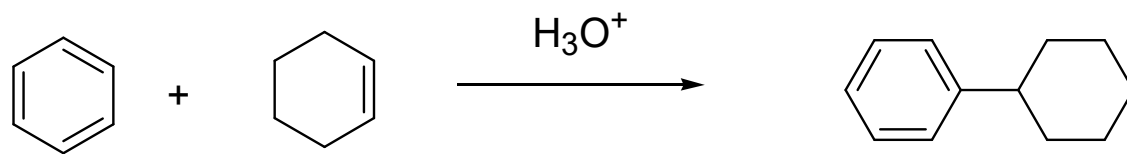
e) Kopulace

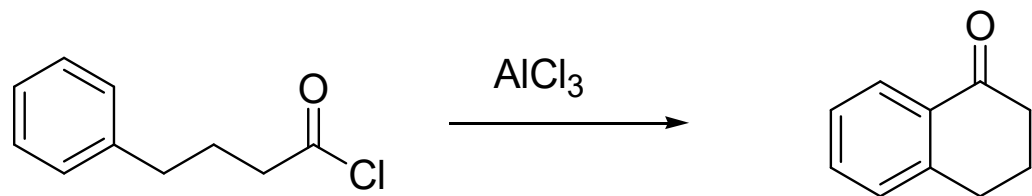


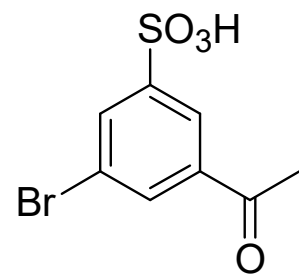
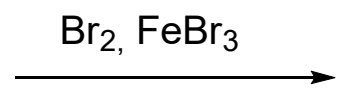
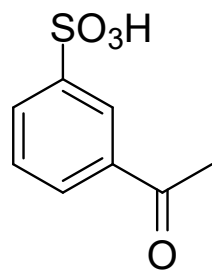


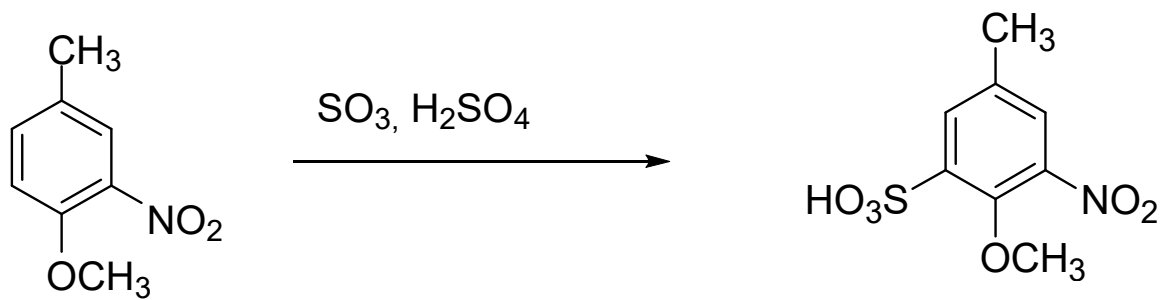


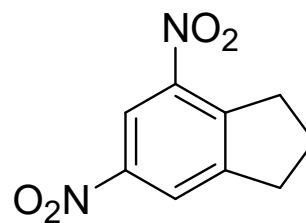
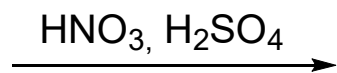
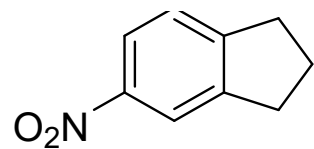


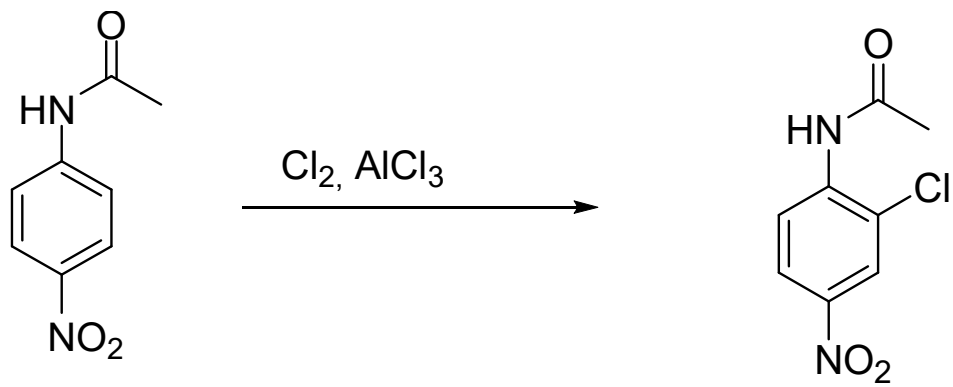


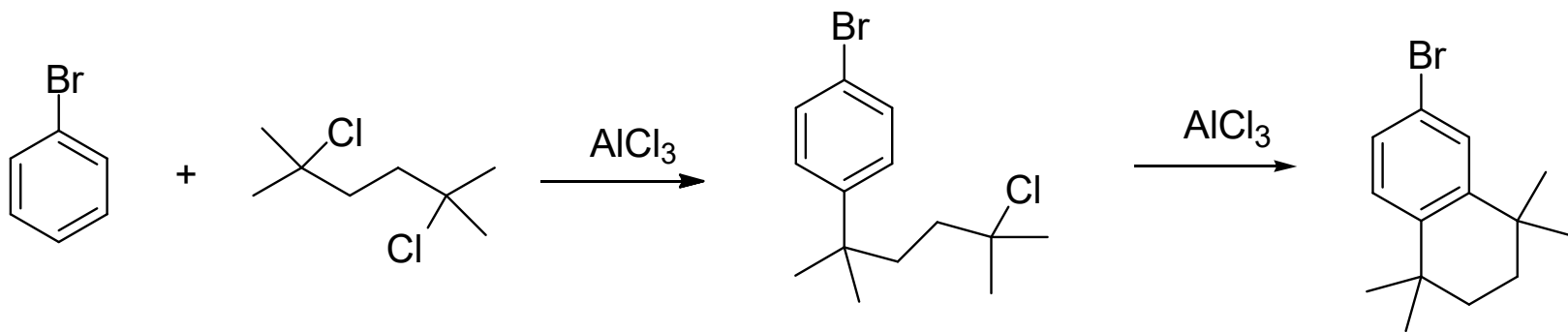


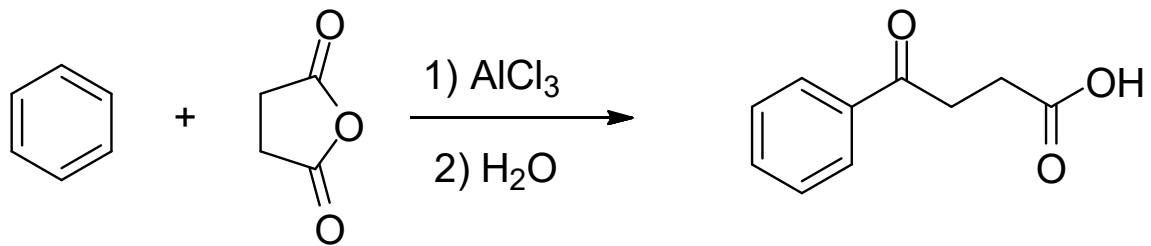


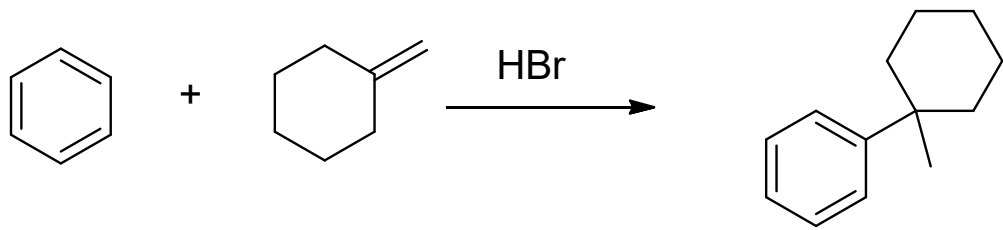


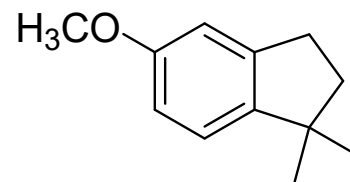
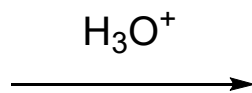
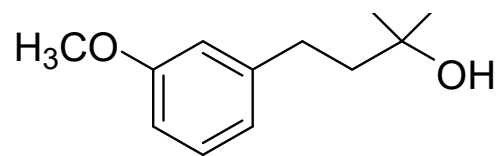


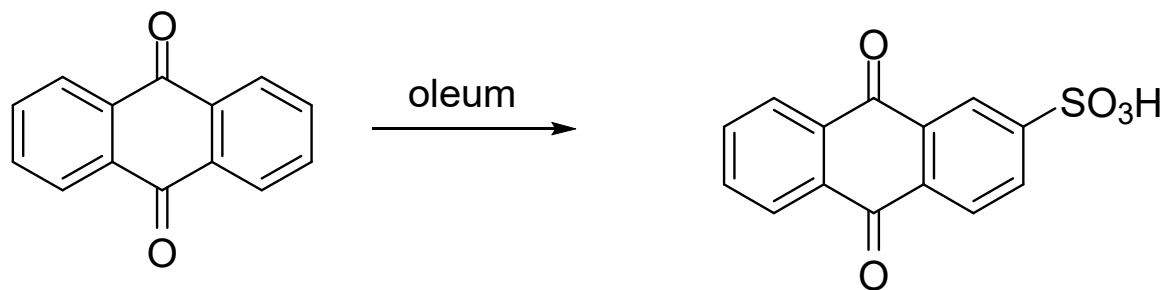


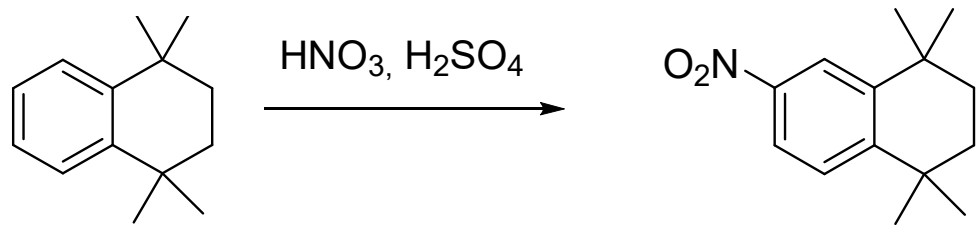


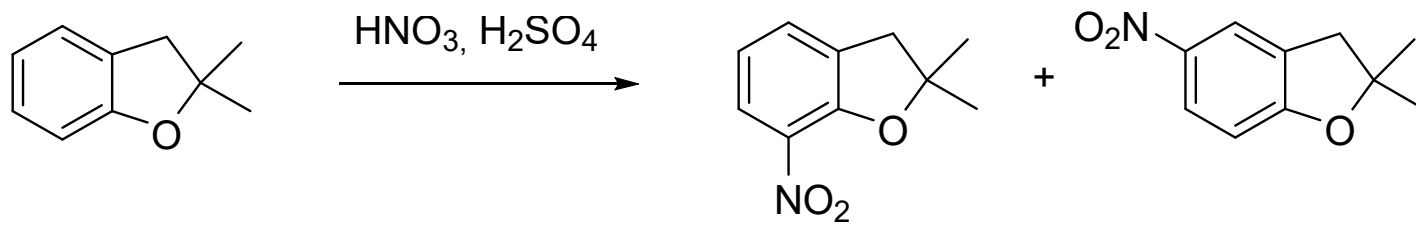












Navrhněte syntézu uvedené sloučeniny

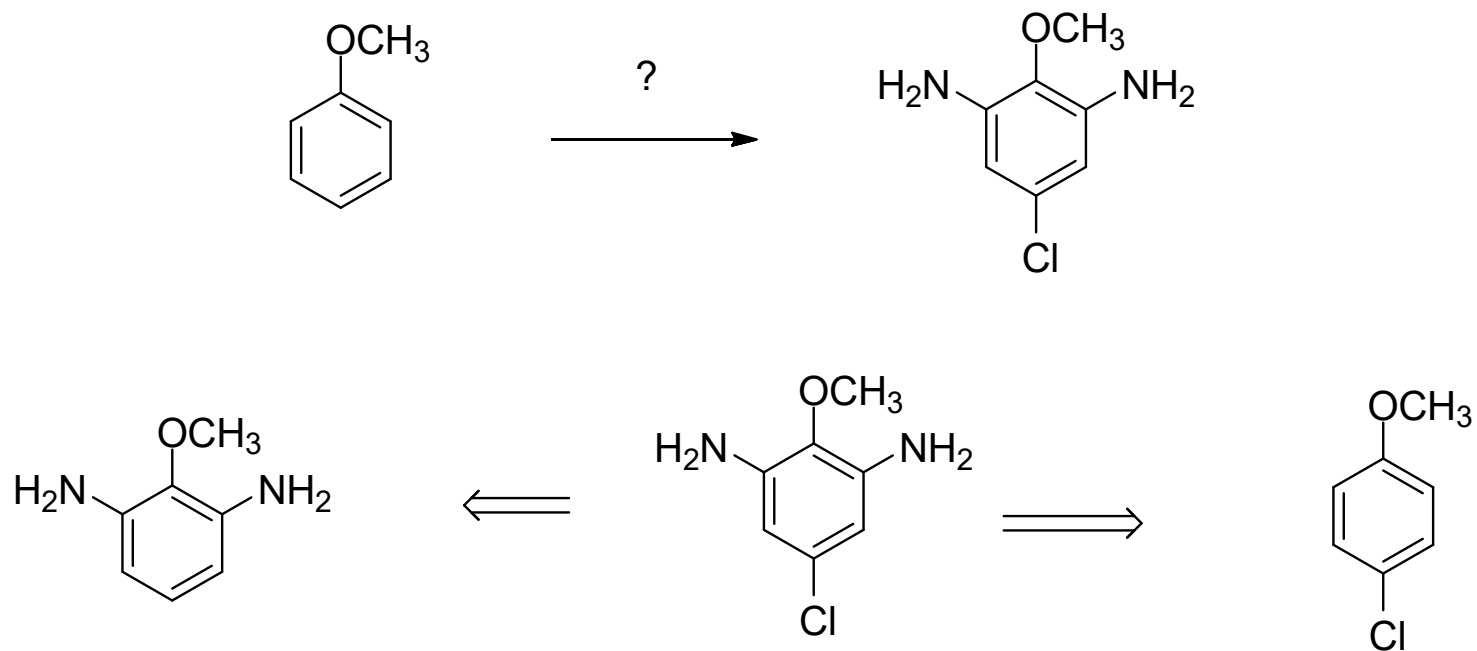


Schéma 1

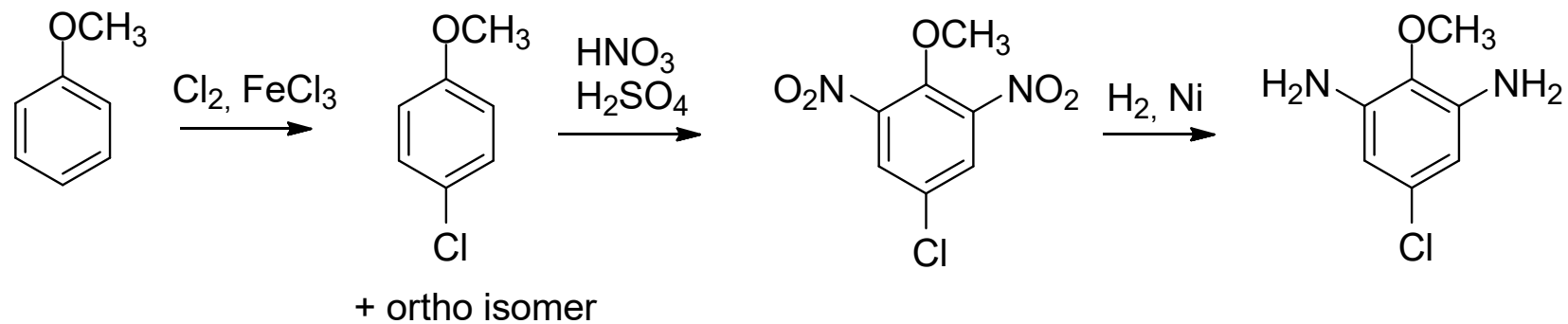
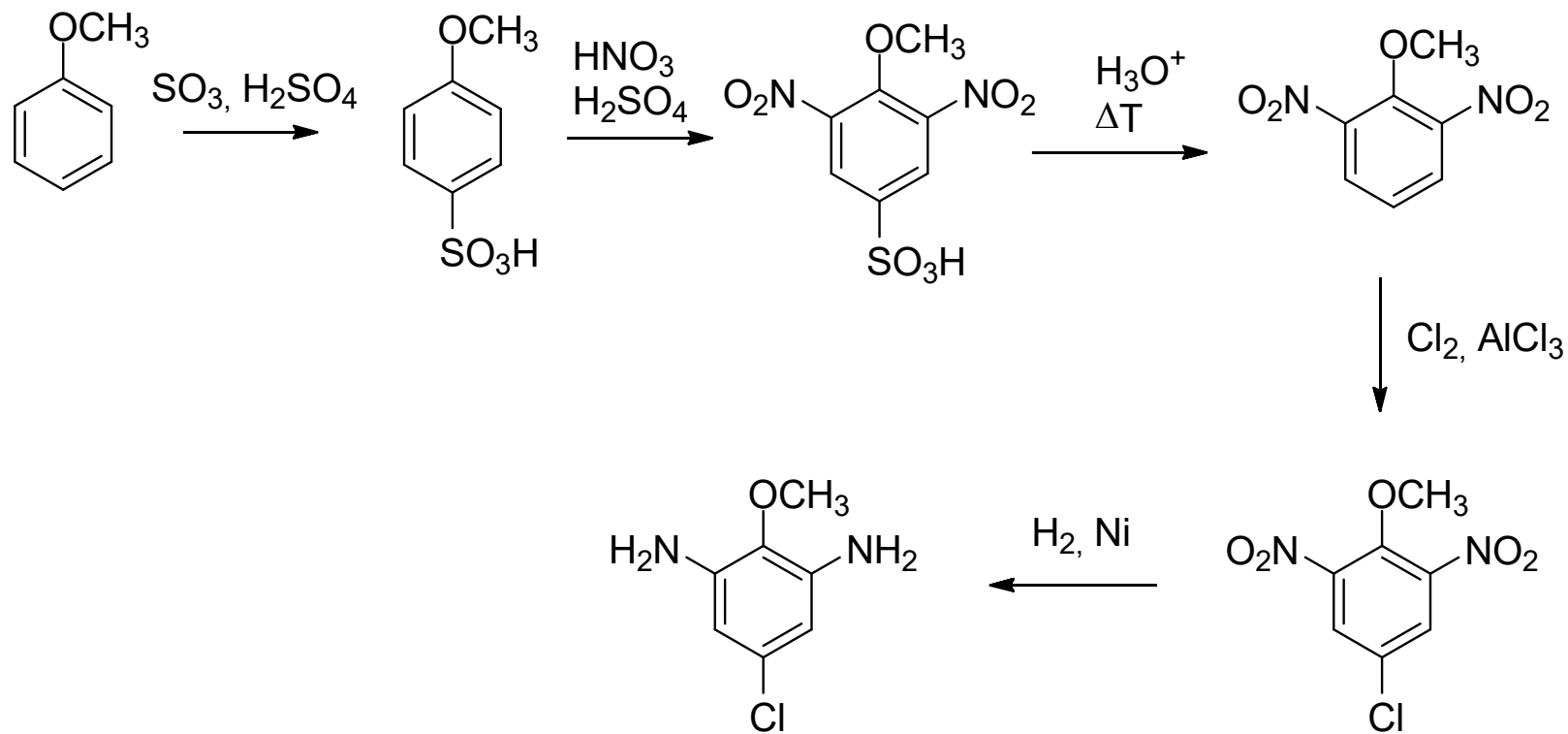
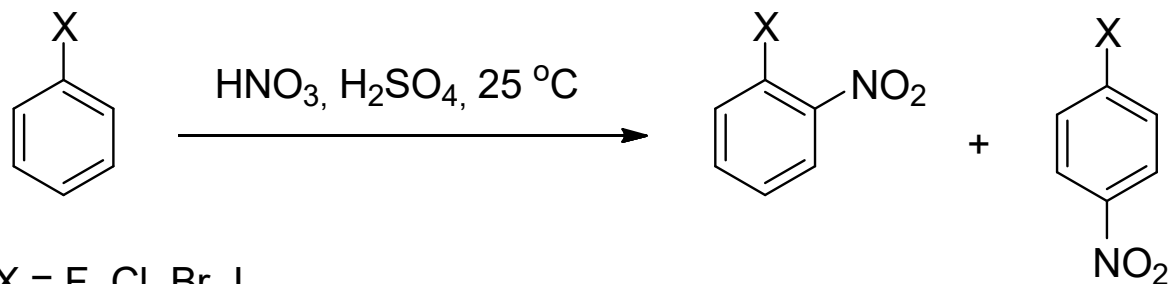


Schéma 2



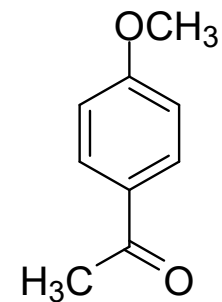
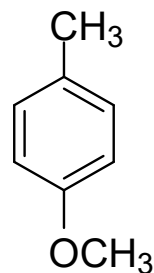
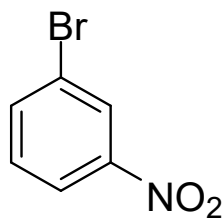
Vysvětlete uvedené pozorování



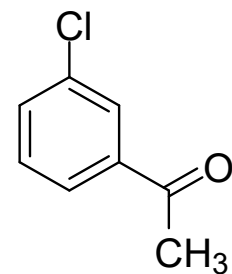
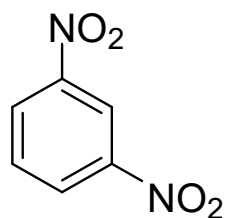
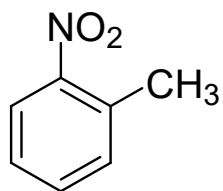
	ortho (%)	para (%)
F	13	86
Cl	35	64
Br	43	56
I	45	54



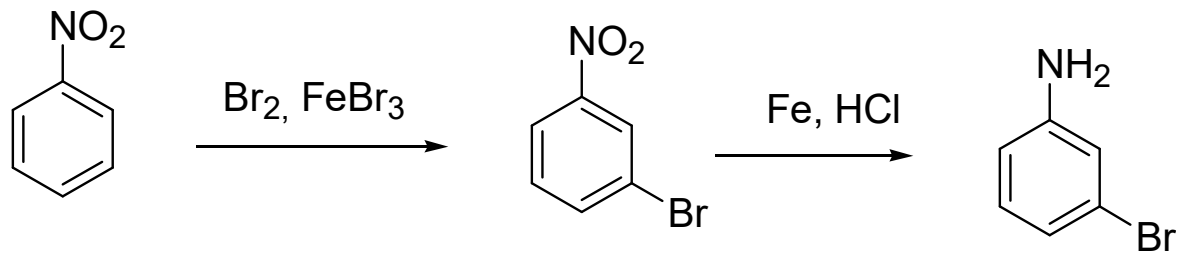
**Navrhněte jednokrokovou syntézu uvedených sloučenin
z vhodného prekursoru**



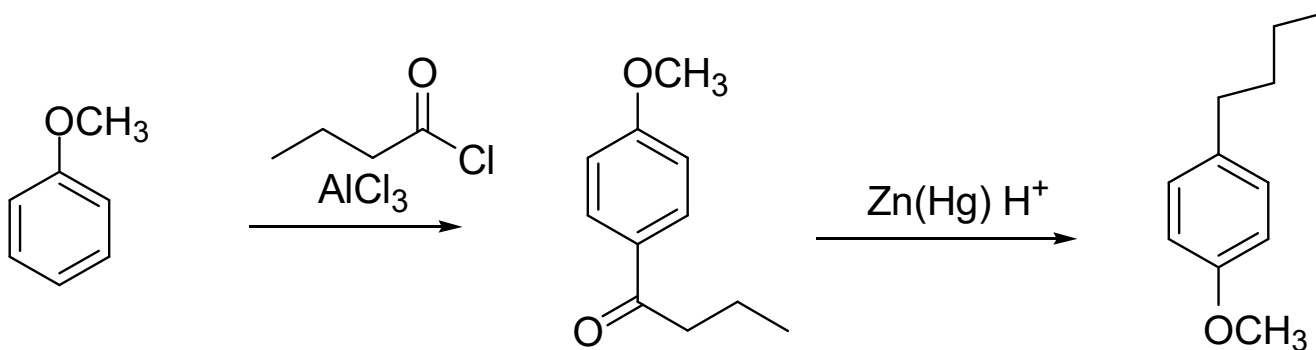
**Navrhněte jednokrokovou syntézu uvedených sloučenin
z vhodného prekursoru**



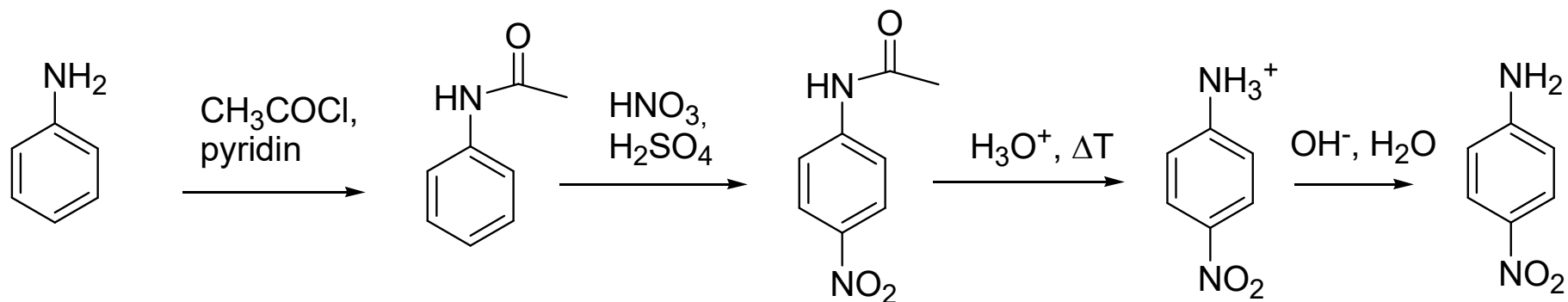
Navrhněte syntézu uvedené sloučeniny

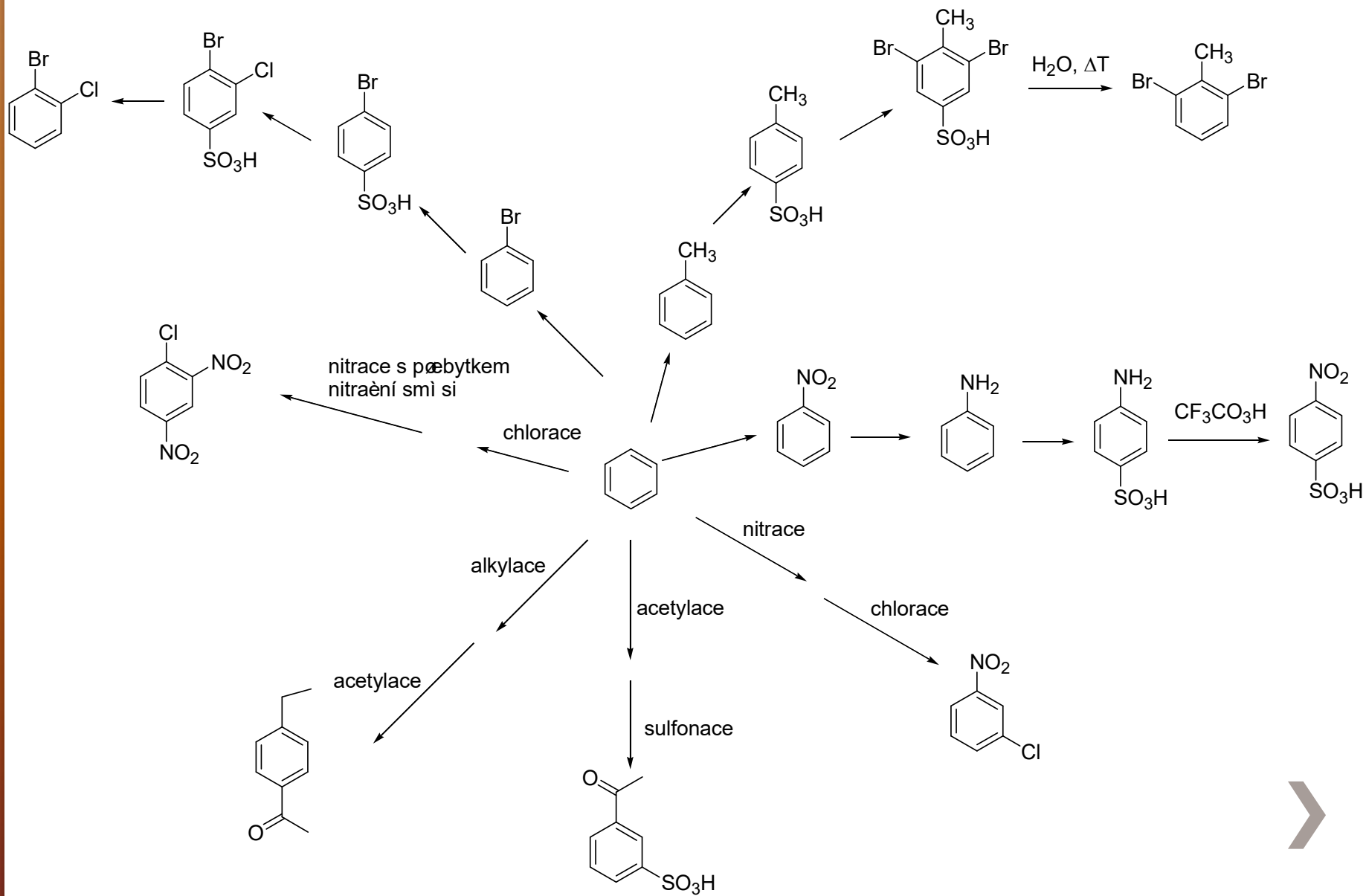


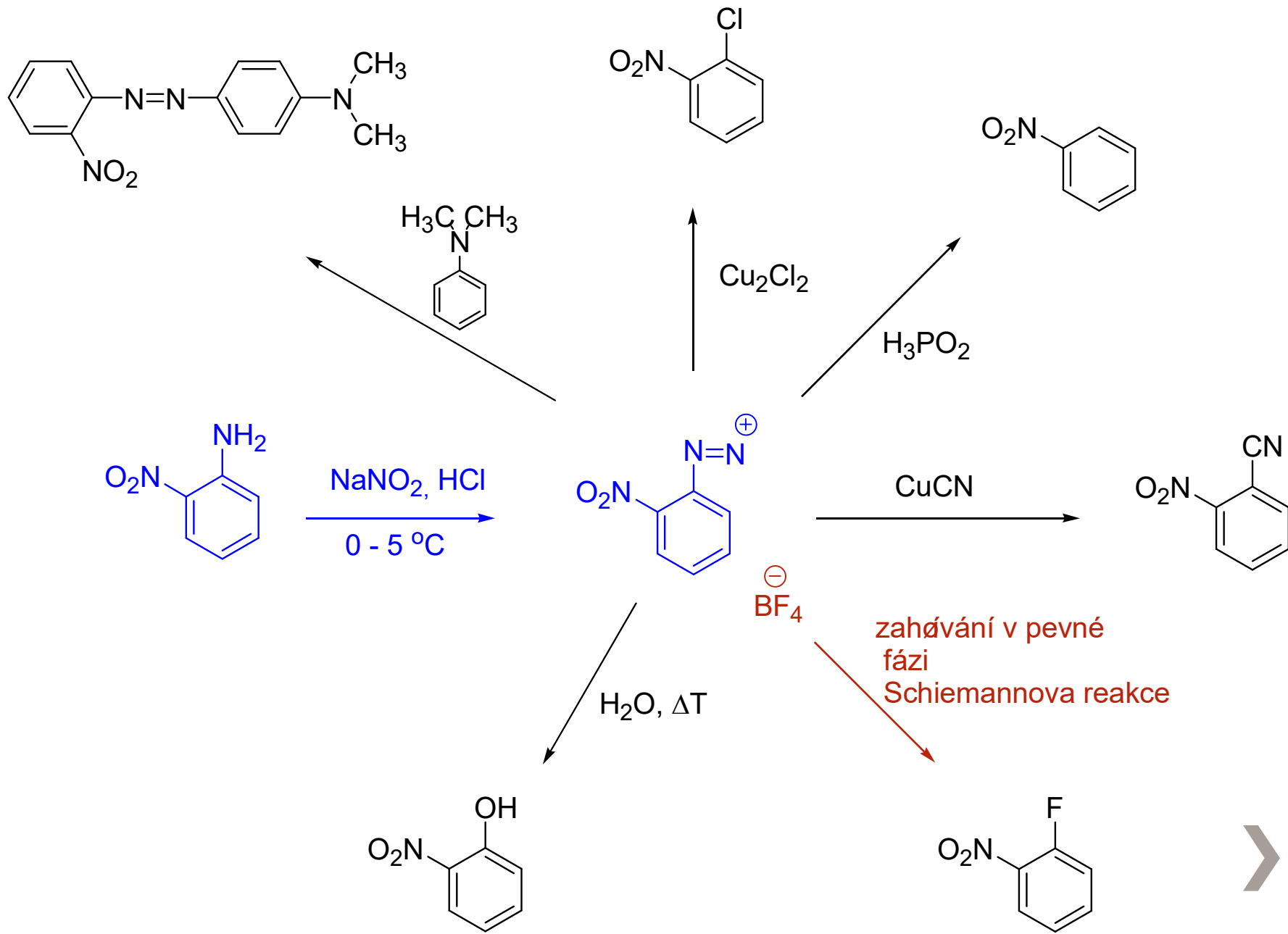
Navrhněte syntézu uvedené sloučeniny



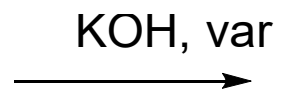
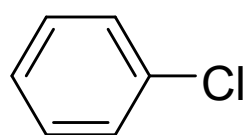
Navrhňte syntézu uvedené sloučeniny



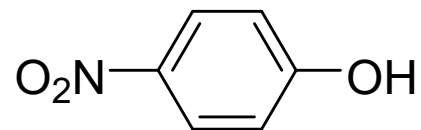
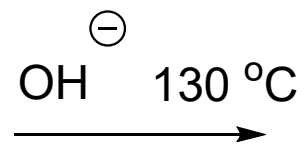
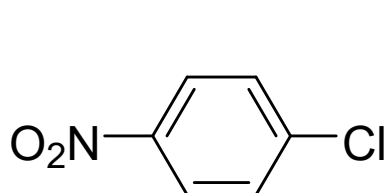




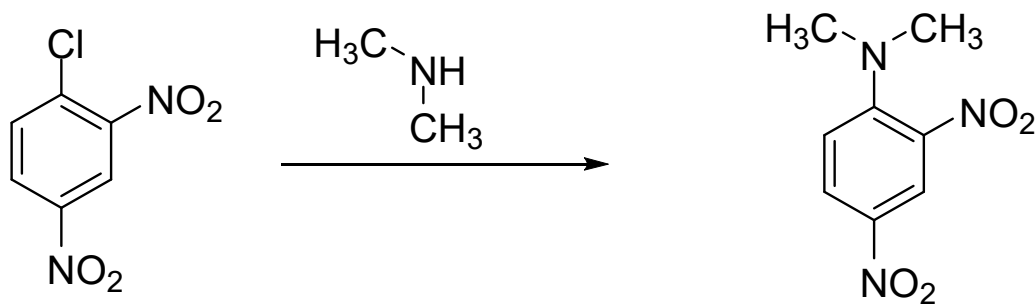
Nukleofilní aromatická substituce mechanismus Ad - E



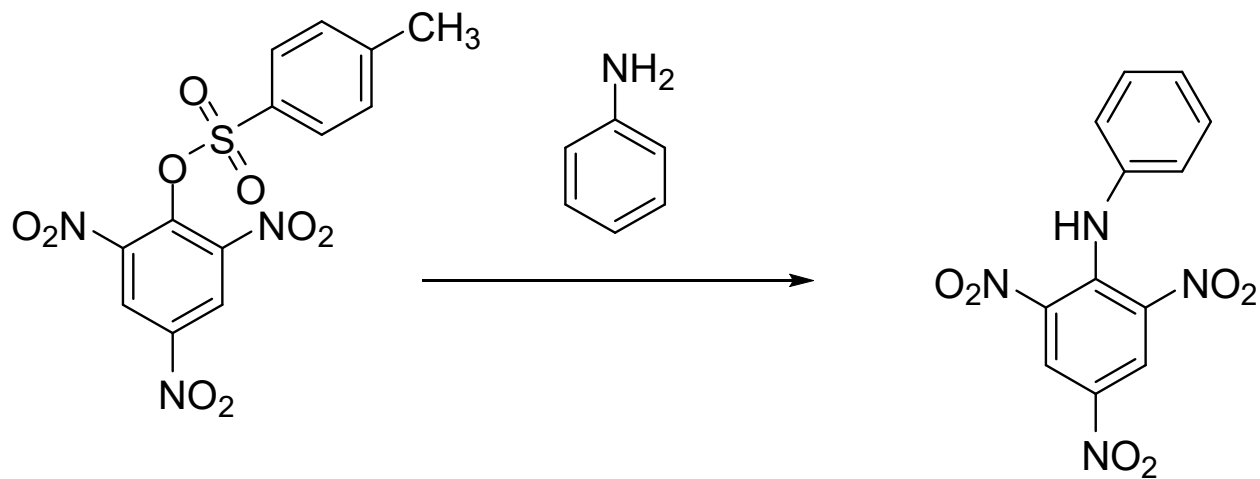
nereaguje



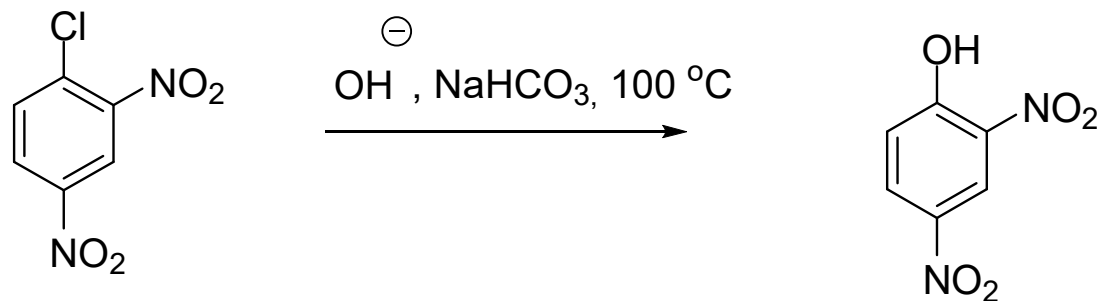
Nukleofilní aromatická substituce mechanismus Ad - E



Nukleofilní aromatická substituce mechanismus Ad - E



Nukleofilní aromatická substituce mechanismus Ad - E



Nukleofilní aromatická substituce mechanismus E - Ad

