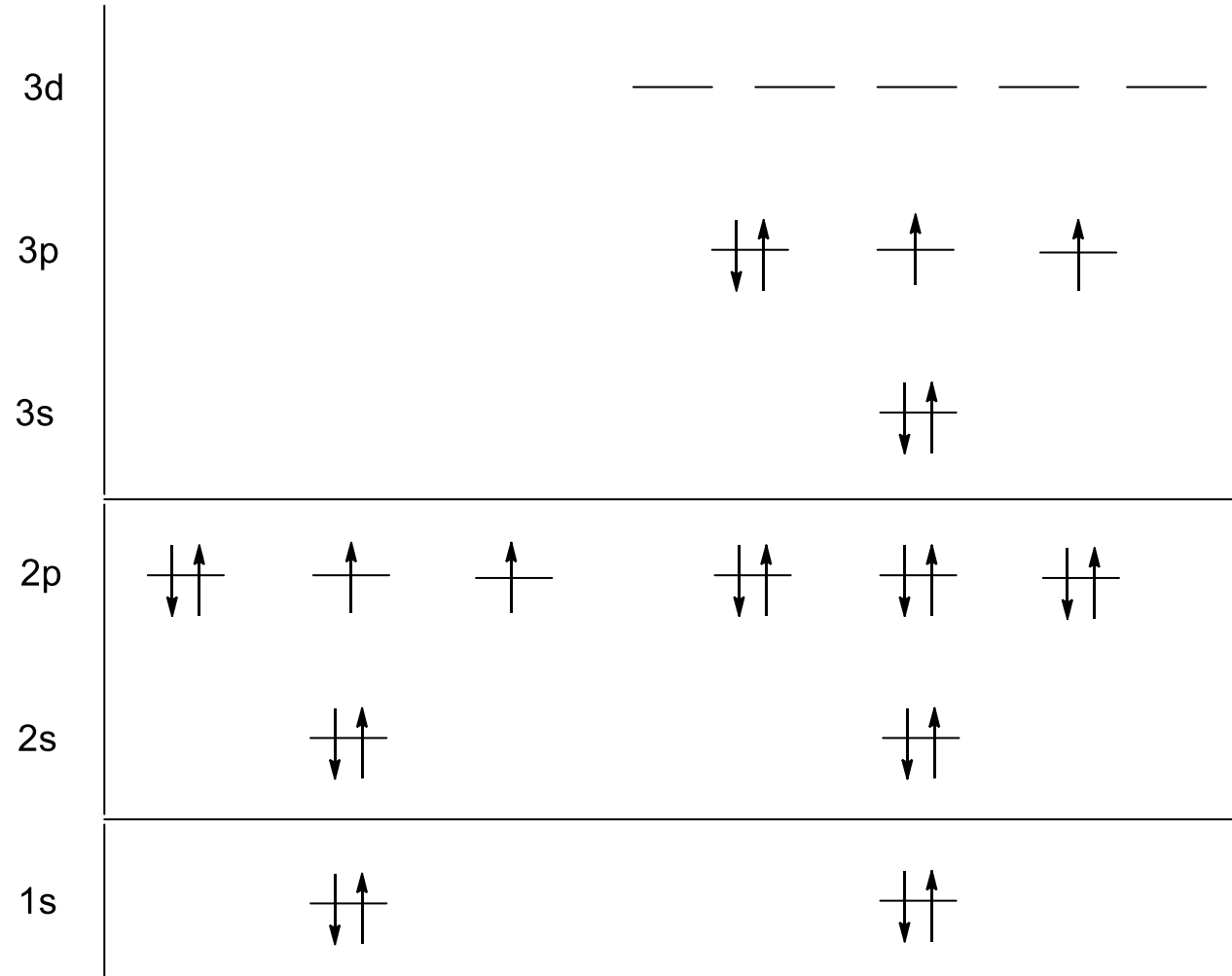


# Kénorganikus vegyületek

## Elektronszerkezet

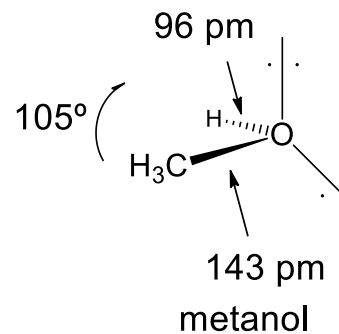
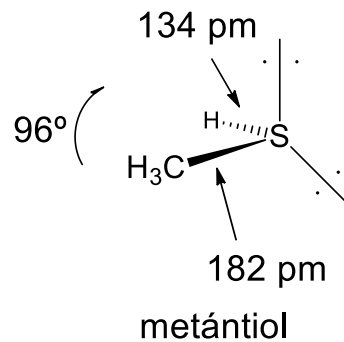
Oxigén

Kén



# TIOLOK

## Szerkezet



## Elektronegativitás

C 2.5

H 2.2

O 3.5

S 2.5

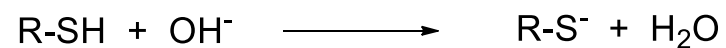
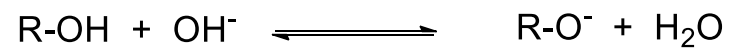
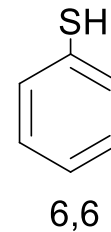
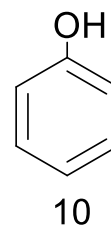
## Kötési energia

S-H 330 kJ/mol    O-H 440 kJ/mol

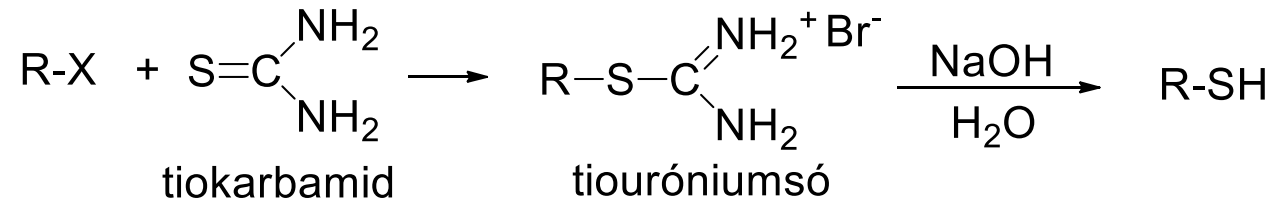
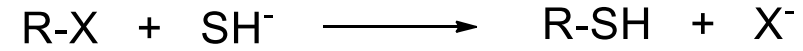
## Savasság (pK)

CH<sub>3</sub>OH  
17

CH<sub>3</sub>SH  
11

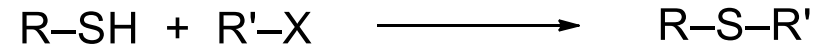


## Előállítás

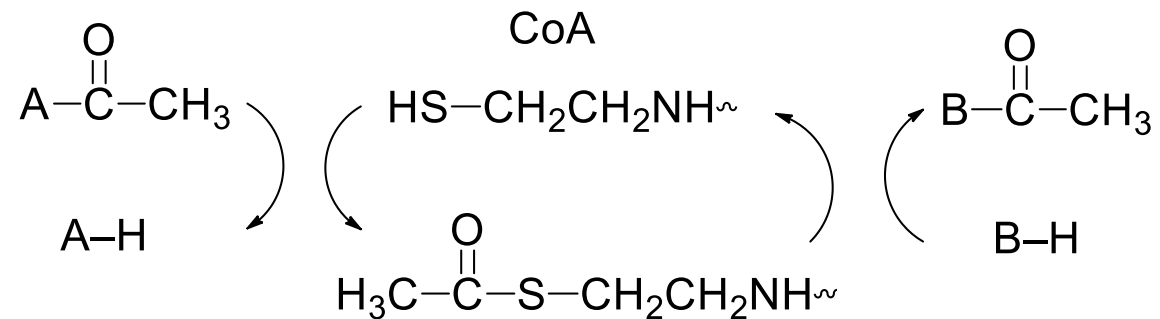
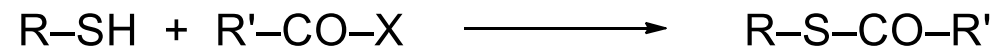


## Reaktivitás

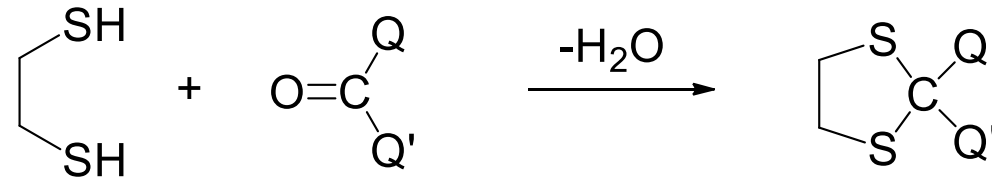
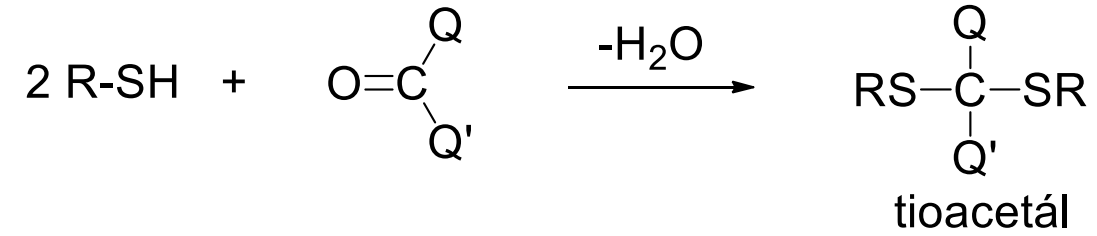
alkilezés ( $\text{S}_\text{N}$ )



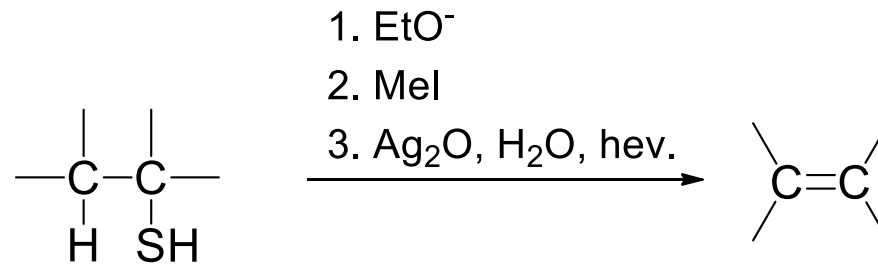
acilezés



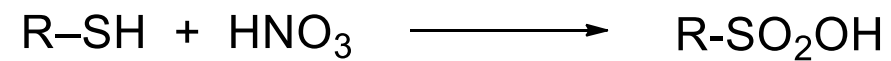
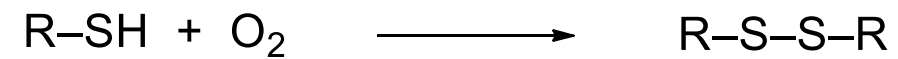
## Addíció oxovegyületekkel



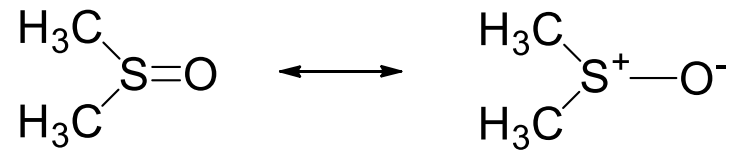
## Elimináció (Hofmann analóg)



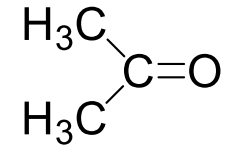
## Oxidáció



## Szulfoxidok

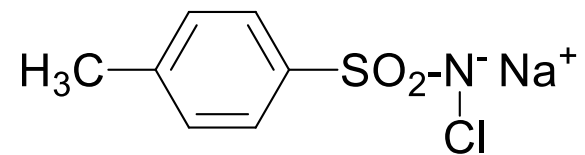
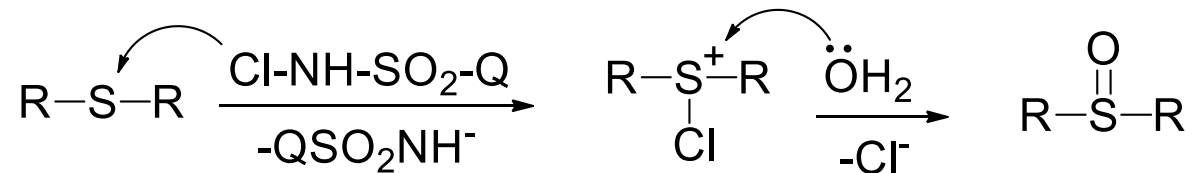
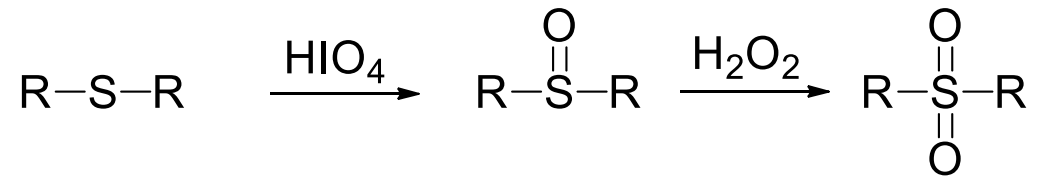


dimetil-szulfoxid  
op. 18°C, fp. 189°C



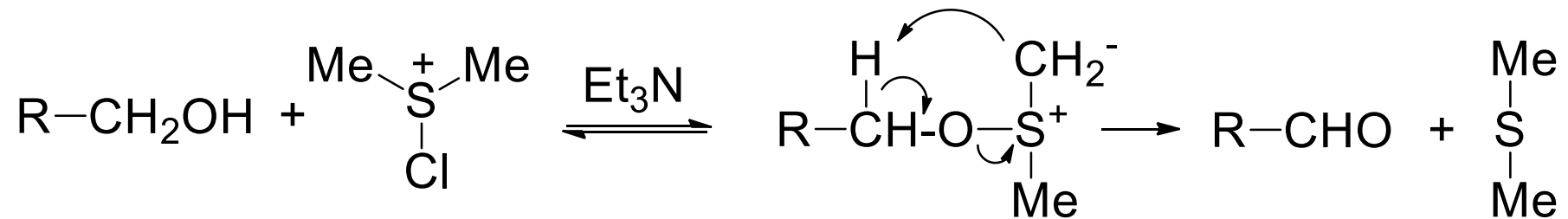
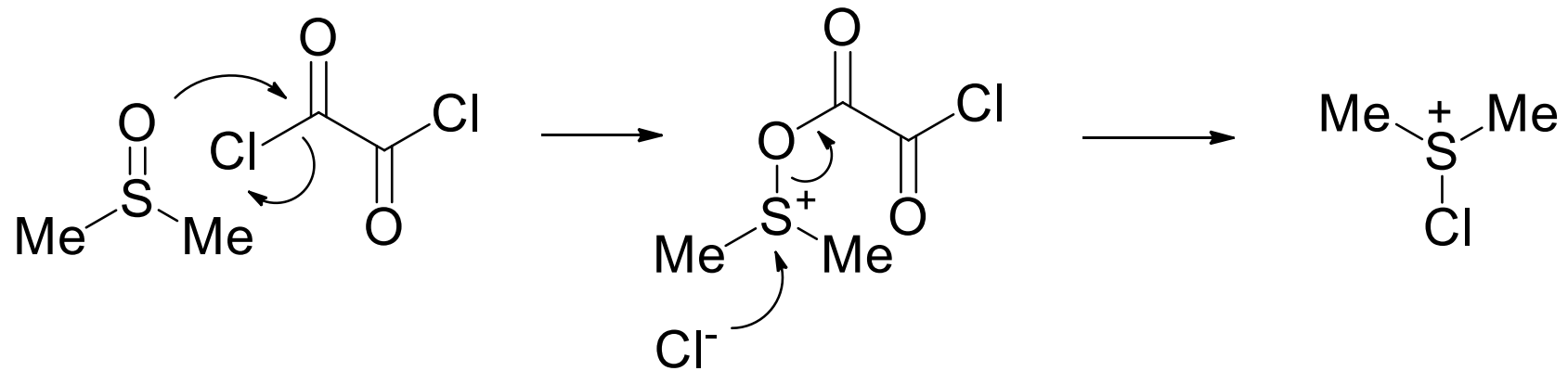
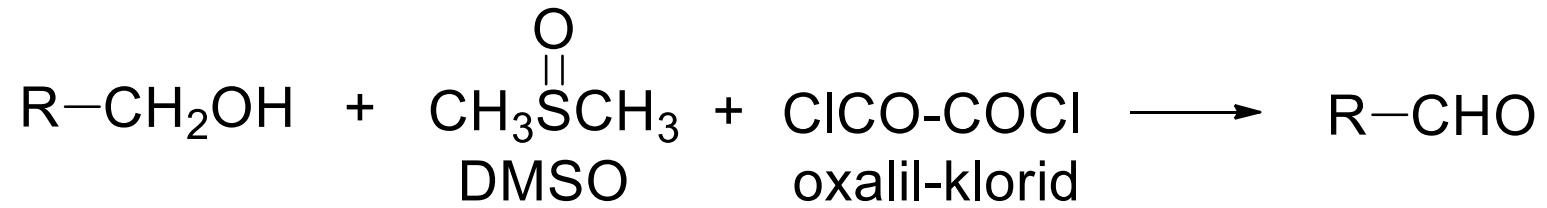
aceton (fp. 56°C)

## Előállítás, oxidáció

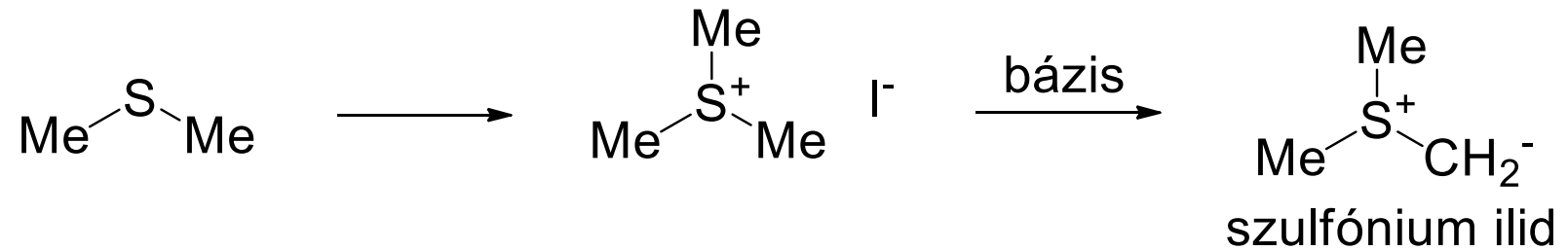
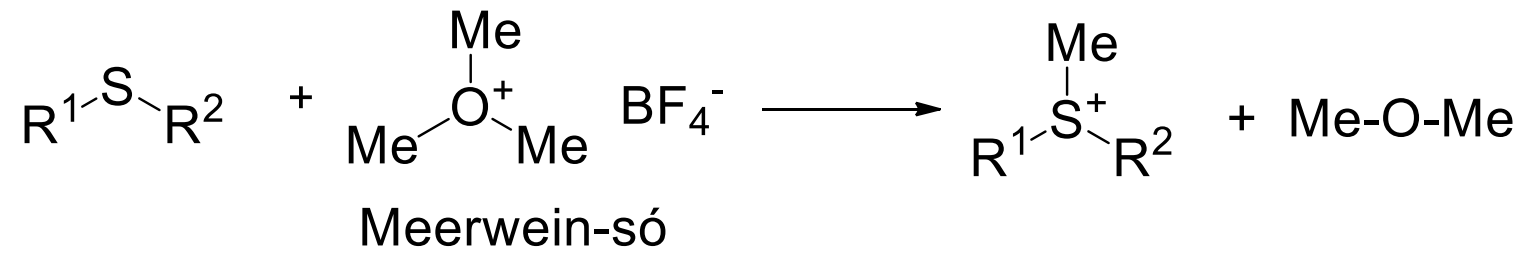
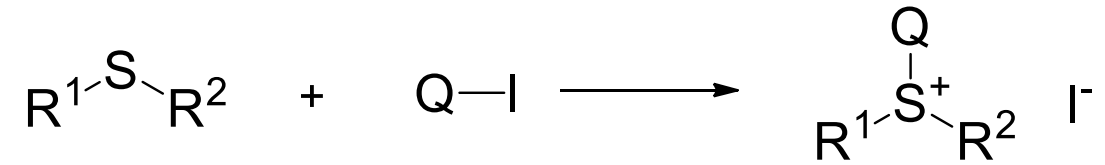


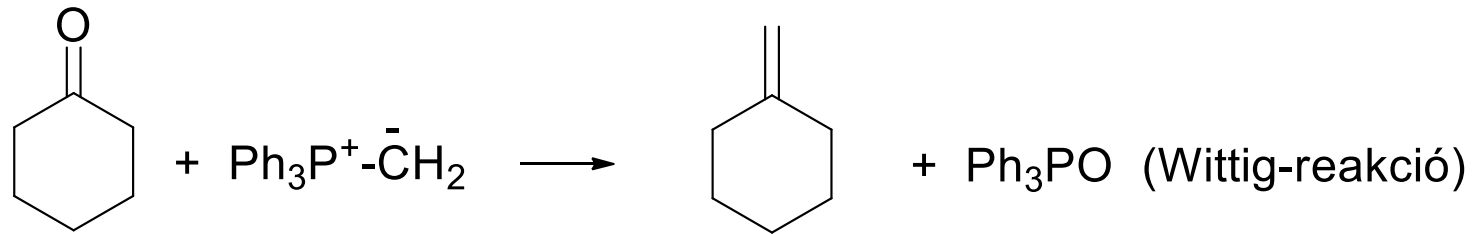
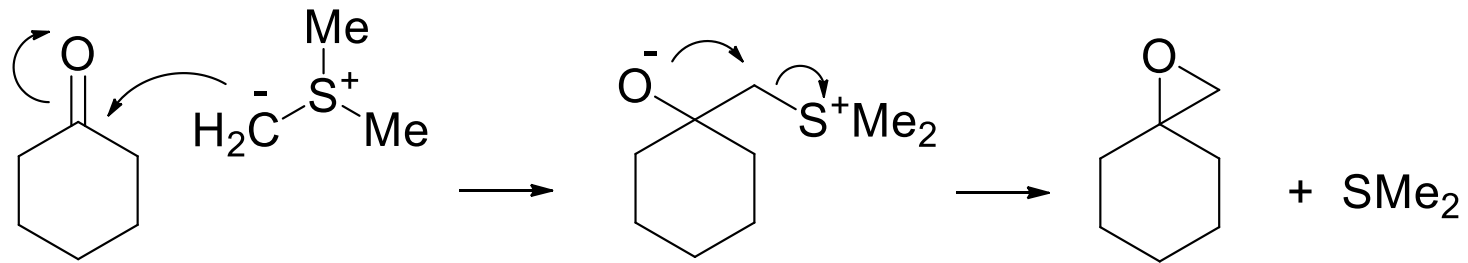
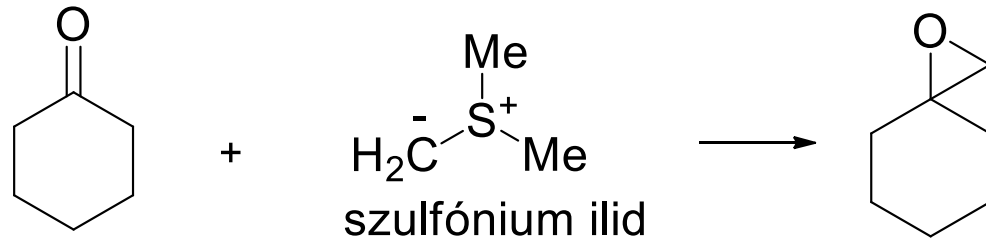
kloramin-T

## Swern-oxidáció



## Szulfóniumsók



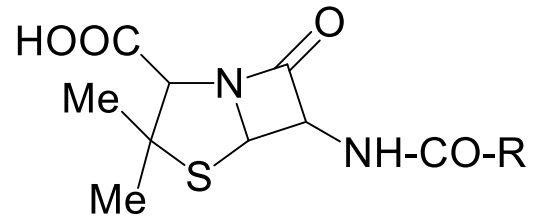
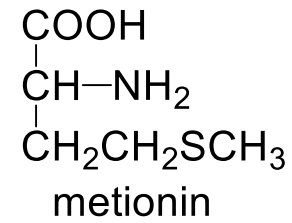
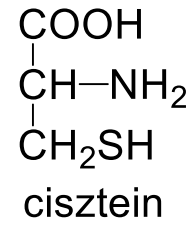


Ph<sub>3</sub>P=O  
529 kJ/mol

Ph<sub>2</sub>S=O  
367 kJ/mol

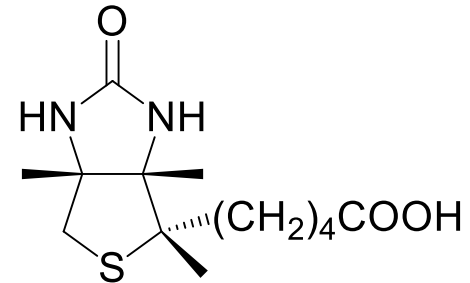


## Kéntartalmú vegyületek

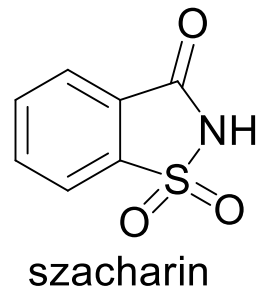


penicillin (Fleming, 1928)

1941: izolálták a Na sóját  
1945: szerkezetmeghatározás  
1952: szintézis (Woodward)



biotin (H vitamin, Kögl, 1936)



szacharin

