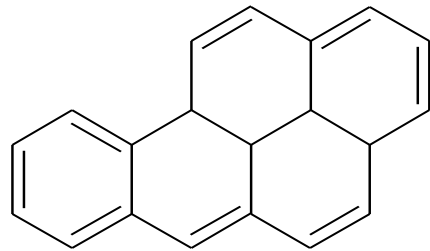
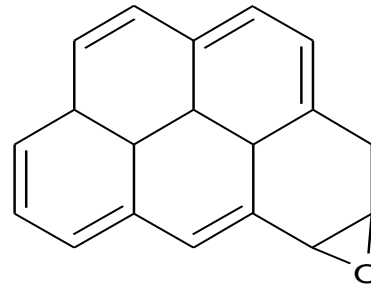
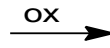


Epoksidasyon

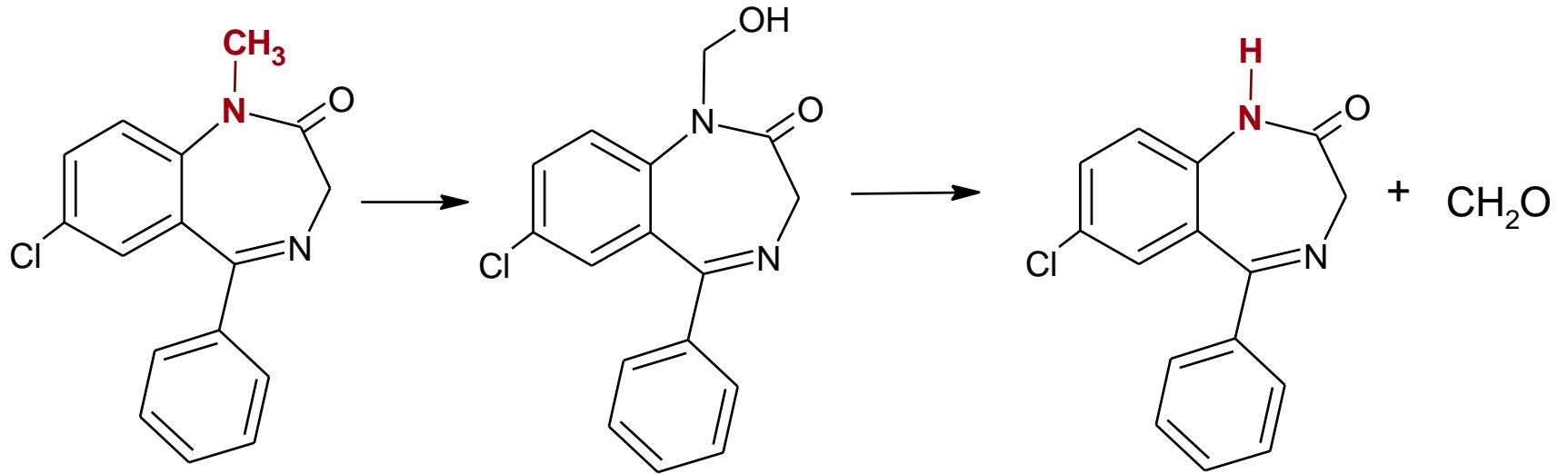


Benzopiren



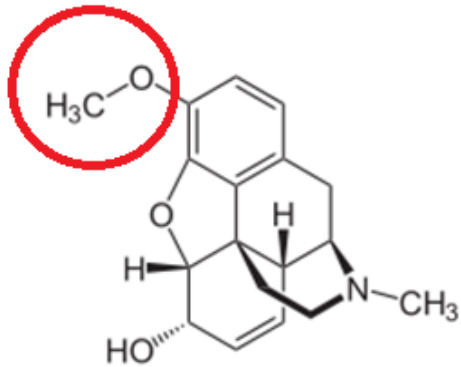
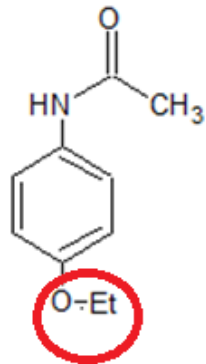
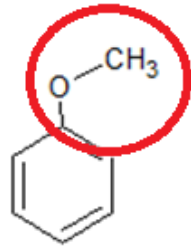
Benzopiren-4,5-epoksit

N-Dealkilasyon

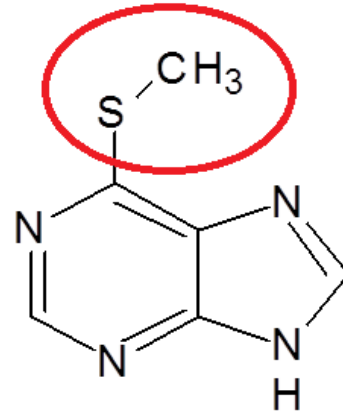


Diazepam

O-Dealkilasyon

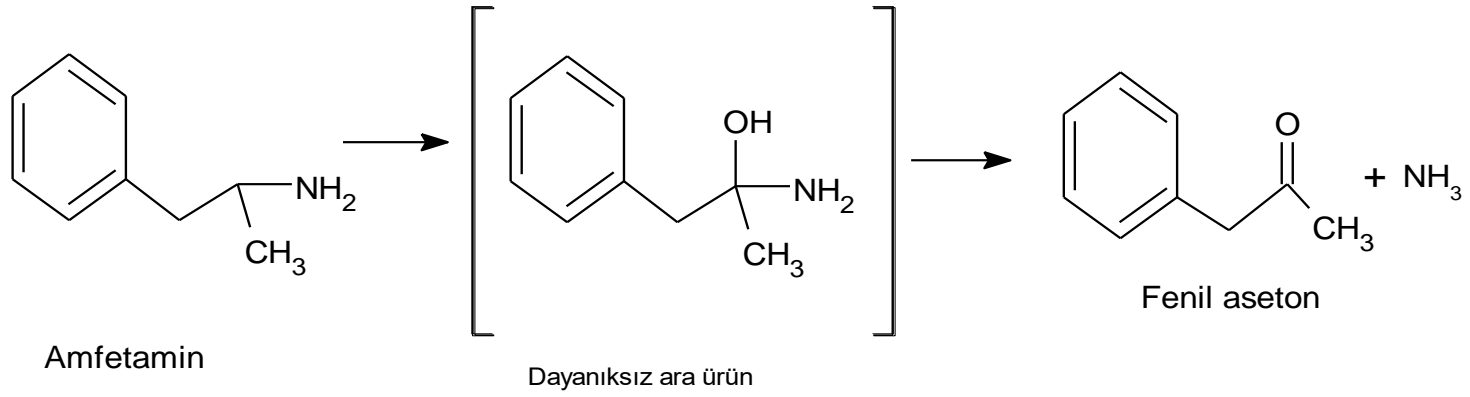


S-Dealkilasyon

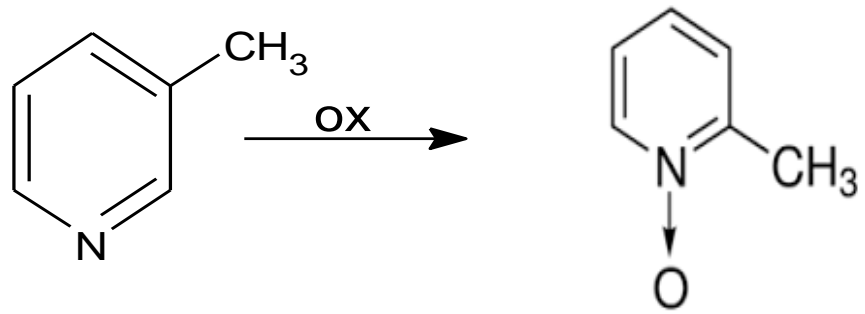


6-Metil tiyopürin

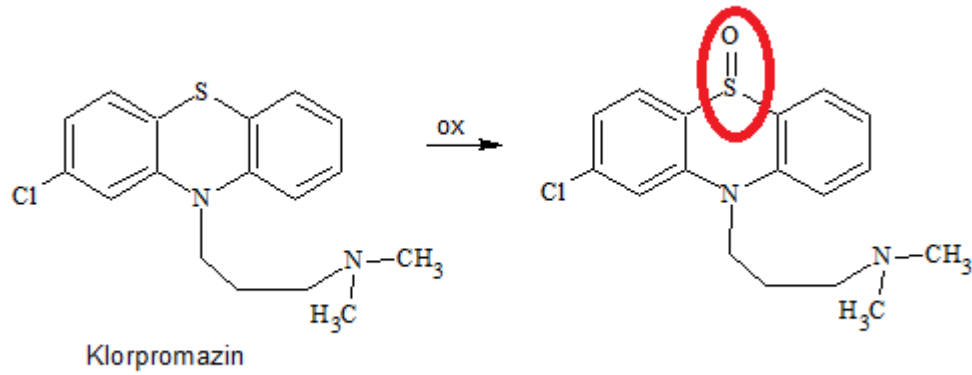
Oksidatif Deaminasyon



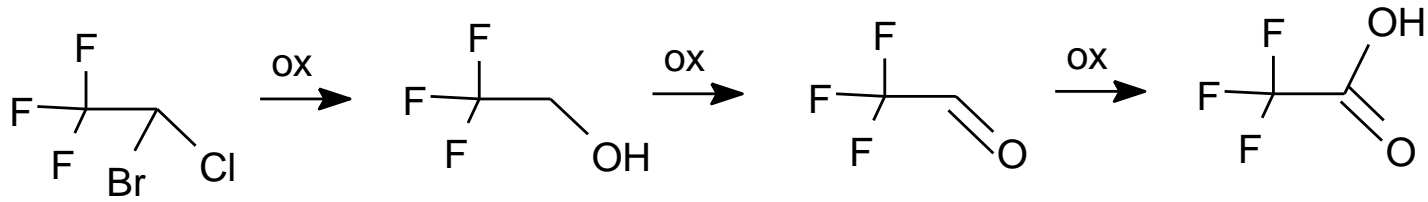
N-Oksidasyon



S-Oksidasyon



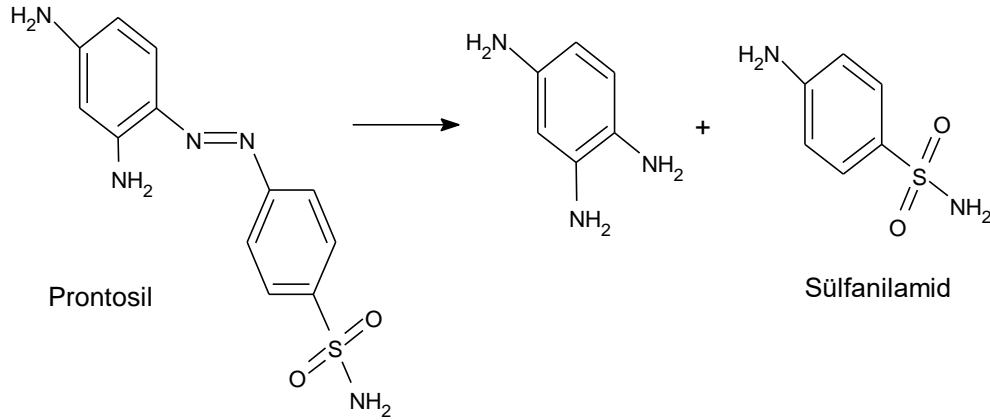
Dehalojenasyon



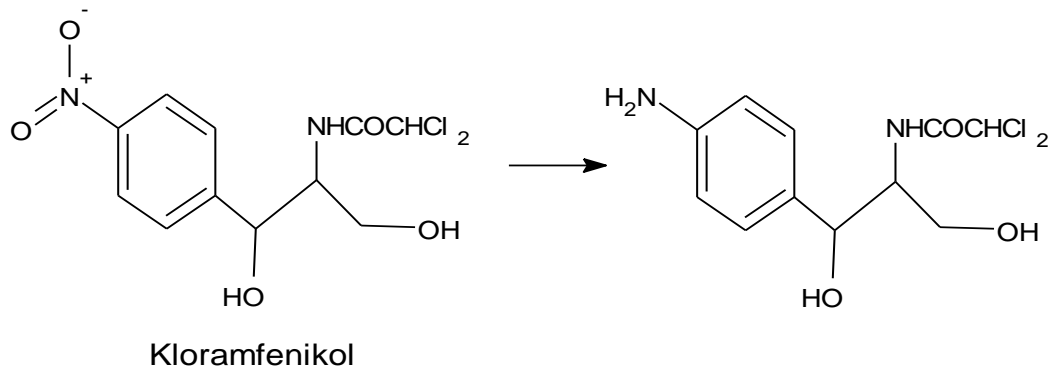
Halotan

2- Redüksiyon Reaksiyonları

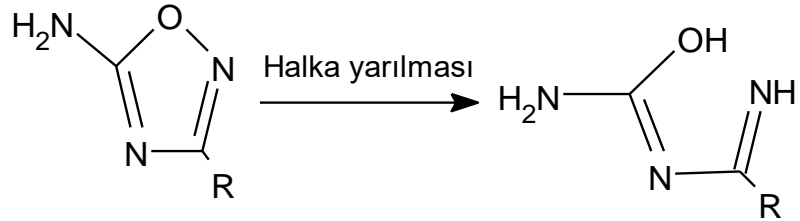
Azo bileşikleri



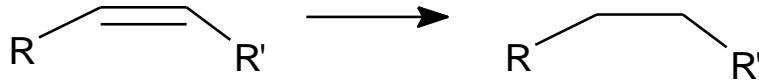
Nitro bileşikleri



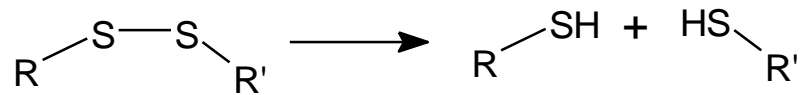
Heterosiklik halkalı bileşikler



Çifte bağlar

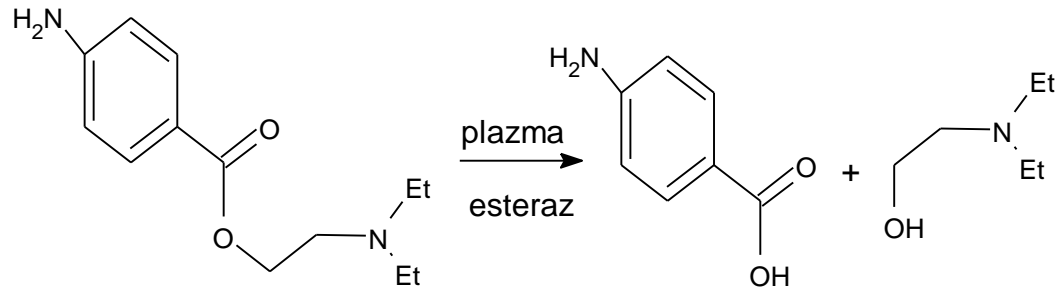


Disülfürler



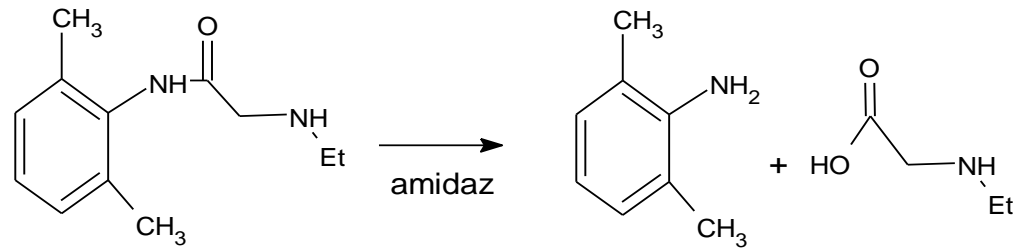
Hidroliz reaksiyonları

Ester hidrolizi



Procain

Amid hidrolizi



Monoetil glisil ksilid

Ksilidin

Etil glisin

Faz II (konjügasyon) reaksiyonları, moleküle sülfat, glukuronik asit gibi küçük, polar, iyonize olabilen grupların enzimatik olarak katıldığı, bir anlamda sentez reaksiyonlarıdır.

Bu reaksiyonlar sonucunda oluşan **konjüгатlar** (Faz II metaboliti), çoğunlukla idrarla atılırlar.

Glukuronik asit konjügasyonu (glukuronidasyon)

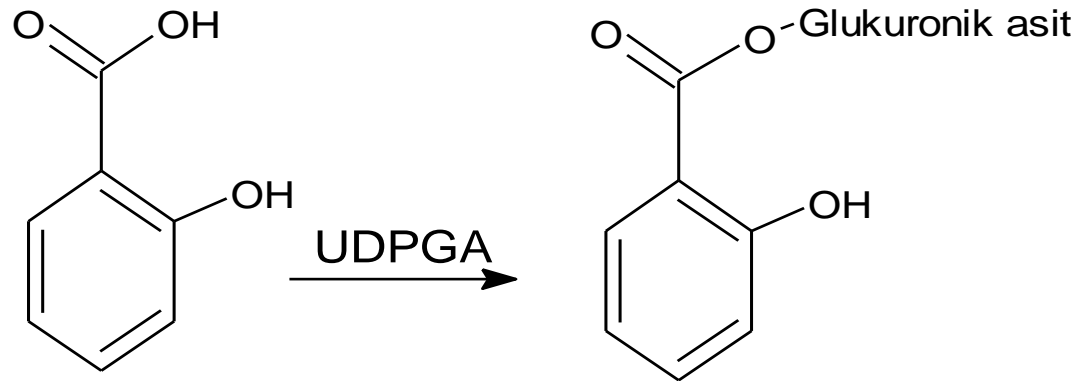
Sülfat konjügasyonu (sülfatasyon-sülfasyon)

Amino asit (glisin, glutamin ve diğer) konjügasyonu

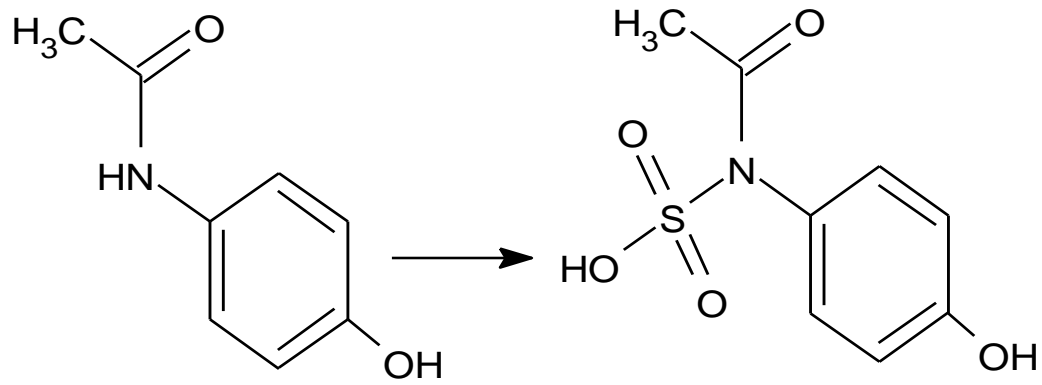
Asetilasyon

Metilasyon

Glukuronidasyon

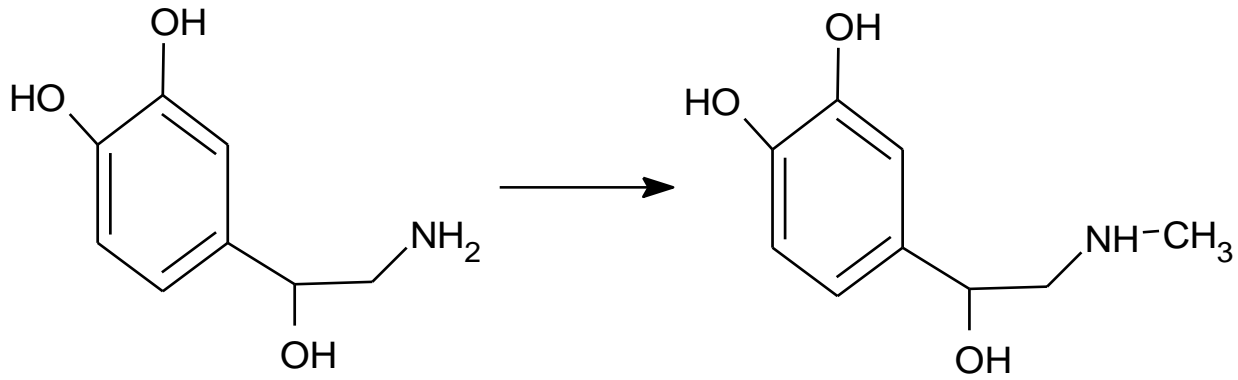


Sülfasyon/Sülfatasyon



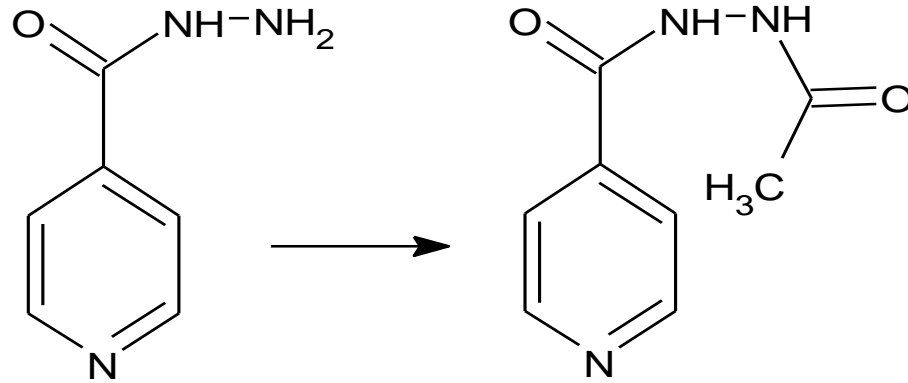
Parasetamol

Metilasyon



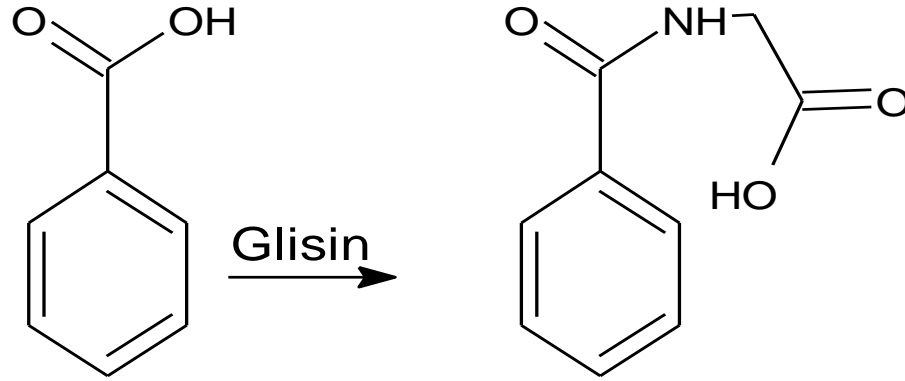
Noradrenalin

Asetilasyon



Isoniazid

Amino asit konjugasyonu



Benzoik asit

Hippürik asit

Metabolizmanın ilaç aktivitesi üzerine etkisi ve yeni ilaç geliřtirmedeki önemi

- **Faz II** reaksiyonları sonucunda genellikle inaktif metabolitler oluşurken,
- **Faz I** reaksiyonları sonucunda;
 - Farmakolojik etkinin azalması- Deaktivasyon
 - Farmakolojik aktivitenin artması- Aktivasyon
 - Toksikitede artış- İntoksikasyon
 - Değişen farmakolojik etki gözlenebilir.

- **Metabolitler incelenerek daha az toksik bileşiklere geçilebilir.**
- **Metabolizma ilaç atılımını kolaylaştırdığı için, etki süresi değiştirilmiş bileşiklerin tasarlanmasında da önemlidir.**
- **Metabolizmanın bilinmesi, daha iyi absorpsiyon ve taşınma özelliklerine sahip bileşiklerin geliştirilmesinde de yardımcı olabilir.**