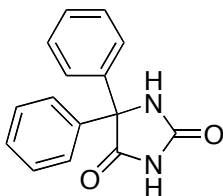


Experiment 5. Benzilic Acid Rearrangement: Preparation of Dilantin*Anticonvulsant drugs:*

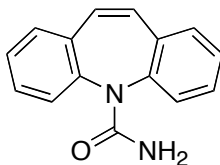
Dilantin Sodium (phenytoin)*

Tegretol (carbamazepine)

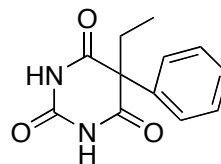
Phenobarbital

Epilepsy: one of the most common neurologic disorders, affecting ca. 1% of the population.

phenytoin (Dilantin)



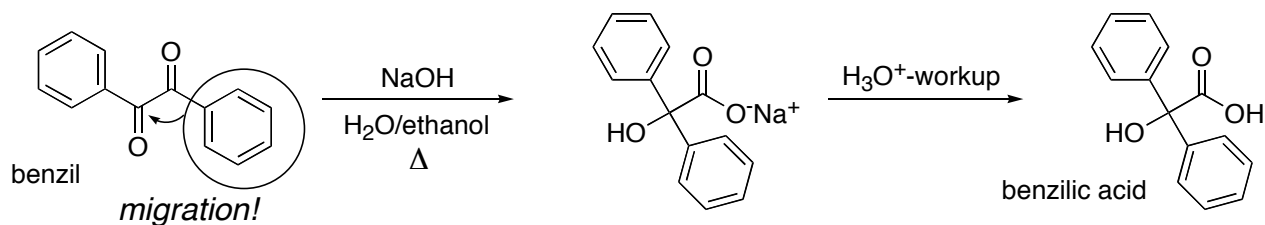
carbamazepine



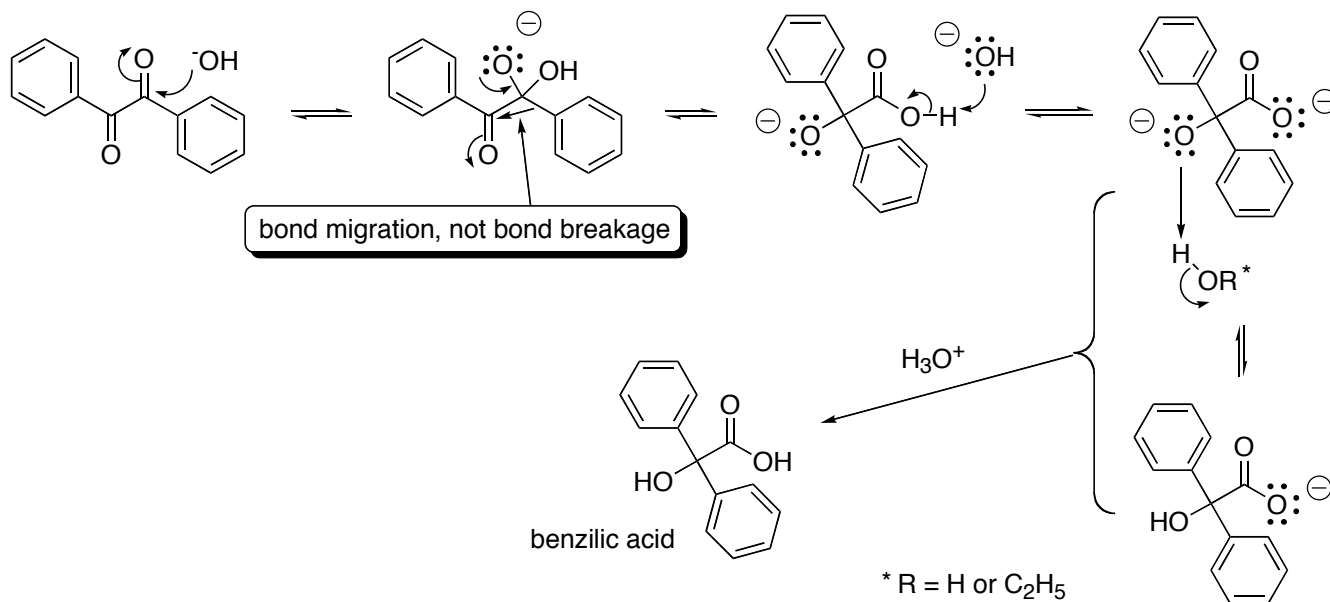
phenobarbital

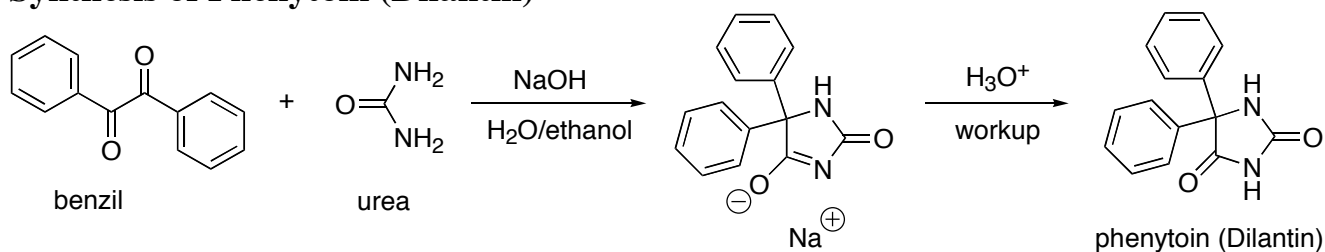
* <http://www.mentalhealth.com/drugs/f33-d05.html><http://www.pfizer.ca/our%20products/pfizer%20pharmaceutical%20group/dilantin/>**Benzilic Acid Rearrangement**

• Discovered in 1938 by Justus Liebig – one of the first C-C bond migration reactions.



Reaction mechanism:



Synthesis of Phenytoin (Dilantin)**Reaction Mechanism:**