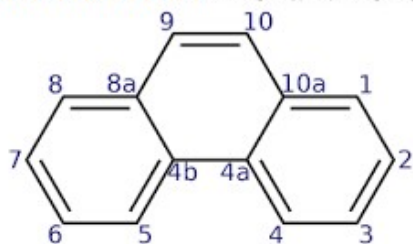
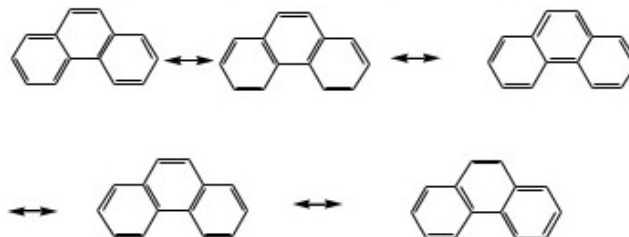


# Phenanthrene

Position Number in Phenanthrene



Resonance Forms of Phenanthrene



**Molecular Formula:**  $C_{14}H_{10}$

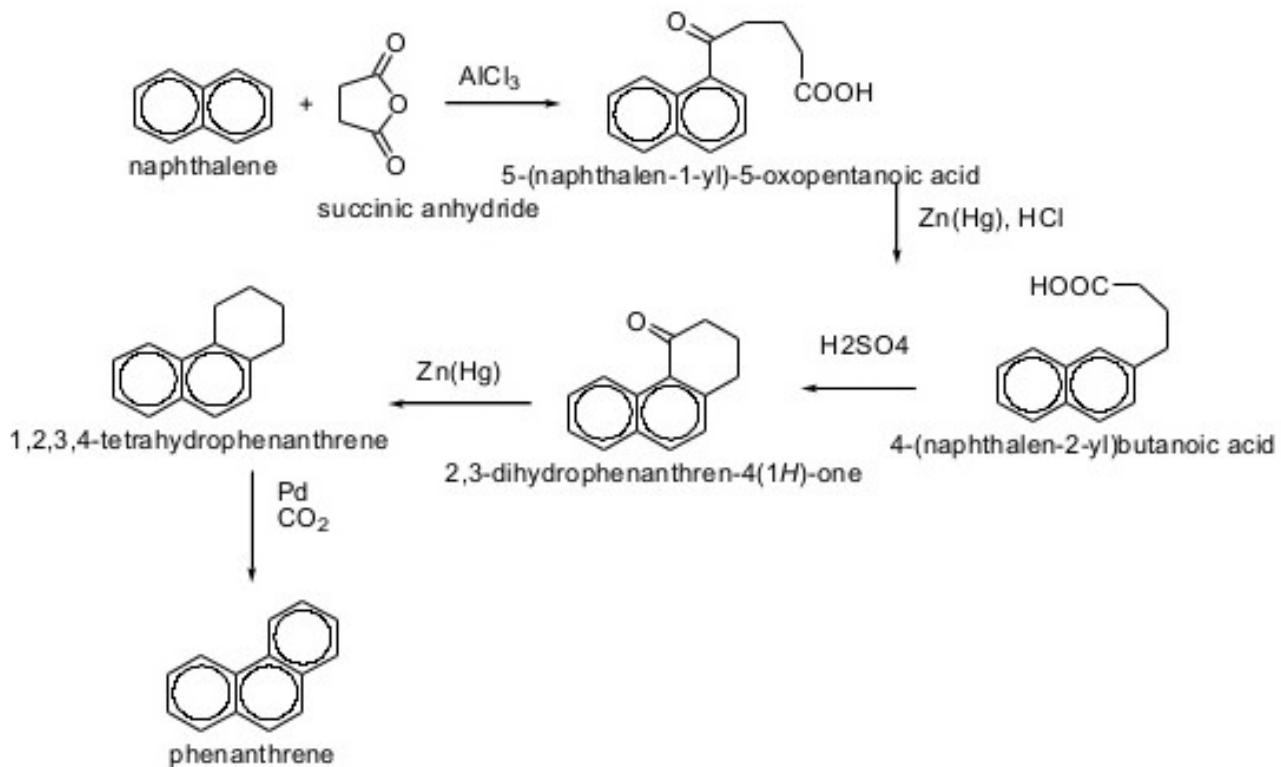
Synonyms: Phenanthrene, Phenanthren, Phenanthrin, Phenanthracene

Molecular Weight: 178.23 g/mol

**Molecular Weight:** 128.17 g/mol

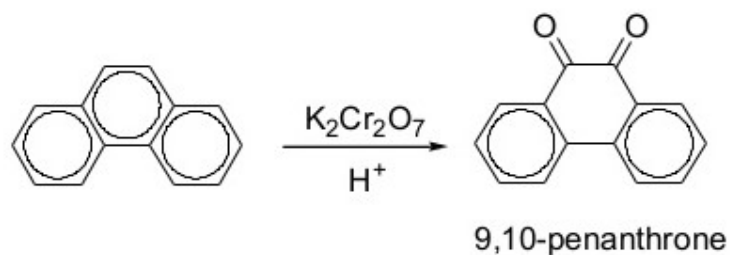
**Preparation of Phenanthrene:**

## 1. Haworth synthesis

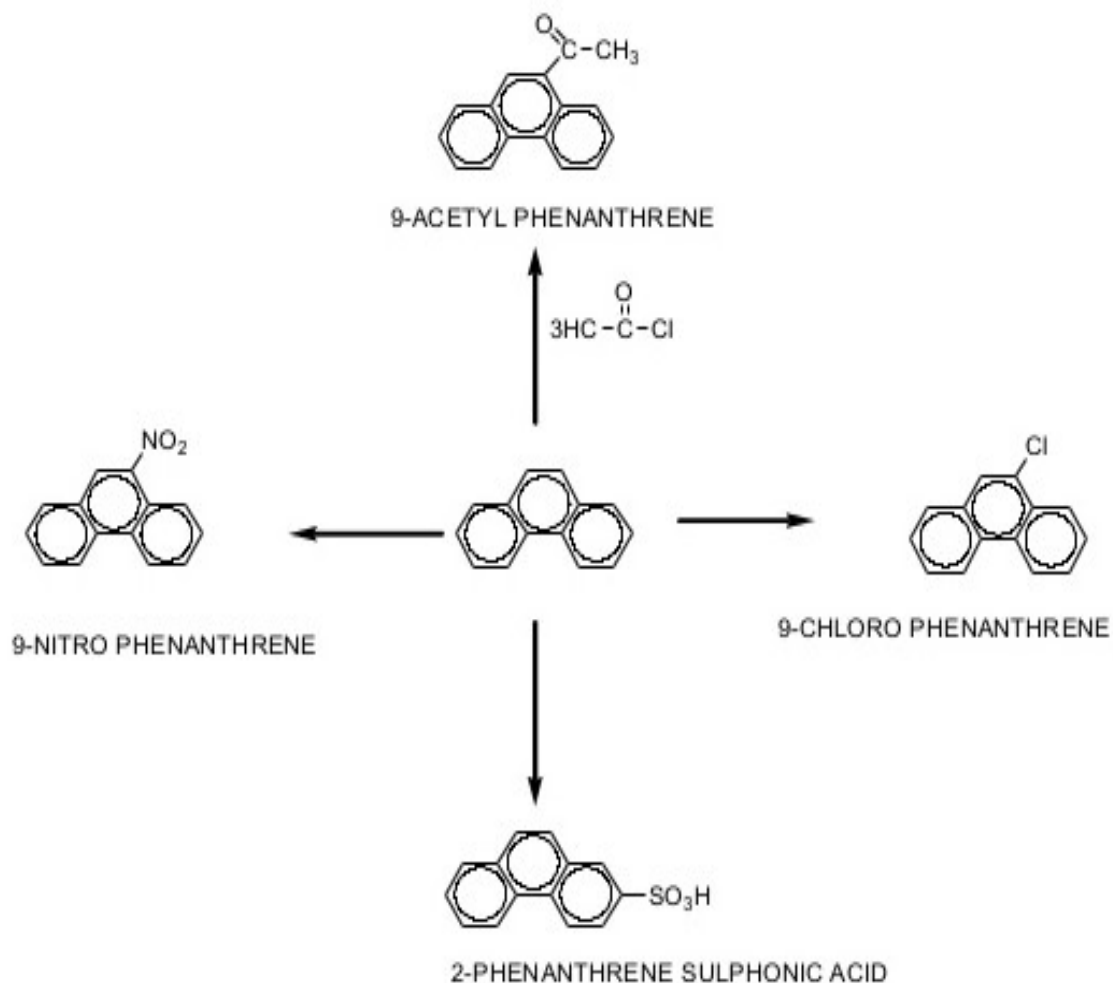


## Chemical Reactions of Naphthalene:

### 1. Oxidation:



### 2. Electrophilic substitution of Phenanthrene



**Medicinal Uses:** Phenanthrene appears as colorless monoclinic crystals with a faint aromatic odor. Solutions exhibit a blue fluorescence. Phenanthrene is a polycyclic aromatic hydrocarbon composed of three fused benzene rings which takes its name from the two terms 'phenyl' and 'anthracene.' It has a role as an environmental contaminant and a mouse metabolite. It is an ortho-fused polycyclic arene, an ortho-fused tricyclic hydrocarbon and a member of phenanthrenes. Used for Synthesis of anthraquinone. Anthraquinone is used in the manufacture of alizarin and several other dyes. Present in Purgative drugs-Senna, Rhubarb, Cascara, Dithrol-Antifungal.