

CHEM 301: Aromatic and Alicyclic Chemistry**L 2 P 1 T 1 (3 credits)**

Benzene: Natural occurrence, properties, stability of benzene, canonical structures of benzene, Kekule, Dewall. Aromaticity: classical treatment, comparison of aromatic and non-aromatic systems; Polynuclear aromatic hydrocarbons (PAH), Types, occurrence. Canonical forms, reactivity of different positions in naphthalene, phenanthrene and anthracene: Important aromatic compounds and derivatives, Natural sources, synthesis and properties; Nucleophilic substitution reaction in aromatic systems; alicyclic compounds: types of compounds, nomenclature of polycyclic alkanes, synthesis of alicyclic compound and special reactions, strain theory, conformational analysis.