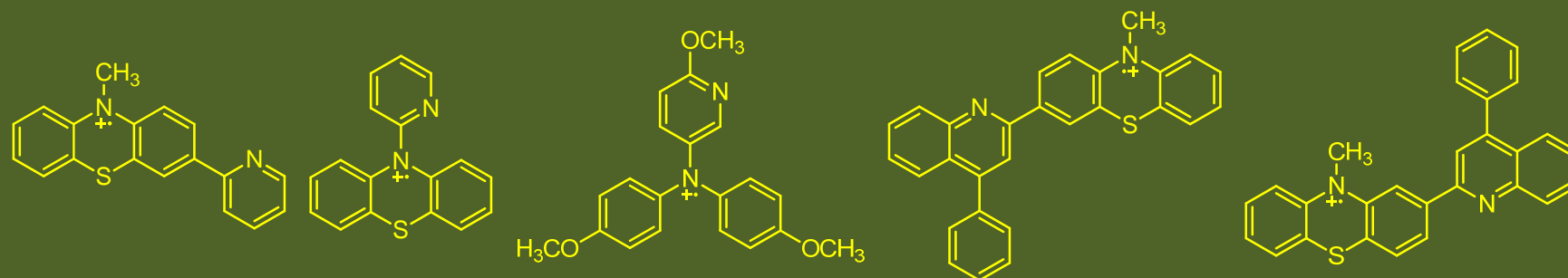


# Investigating Proton-Coupled Electron Transfer with Radical Cations Appended with Bases

Ian J. Rhile, Department of Chemistry and Biochemistry, Albright College, Reading, PA



Base-appended radical cations have the potential to transform hydrocarbons into synthetically useful compounds after abstracting hydrogen atoms. Five base-appended radical cations are stable in solution for hours to days. Each compound reacts with 1,4-cyclohexadiene and 9,10-dihydroanthracene to form benzene and anthracene, respectively. Calculations indicate a concerted mechanism.

