Synthesis and Characterization of Schiff Base Ligands Derived from Amino Acids

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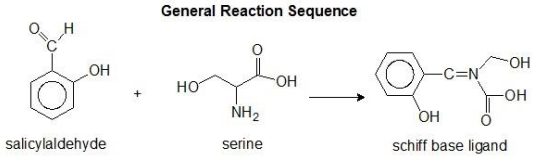
Poster Presentation Abstract:

Schiff base ligands and their metal complexes have been shown to exhibit important biological activities in biological systems and in the pharmaceutical industry (anti-tumor, anti-cancer, anti-malaria, anti-diabetic, etc.). Significant research in this area is ongoing and a lot of complexes have been synthesized with promising biological and/or catalytic activities [1-4]. This project is the preliminary step to synthesizing metal complexes with Schiff Base ligands derived from amino acids for use in biological systems and/or catalysis. In this project, we have synthesized Schiff Base ligands from salicylaldehyde, benzaldehyde, and 4-dimethylnitrobenzaldehyde, with the following amino acids: alanine, histidine, leucine, valine, phenylalanine, and serine. The general names of the ligands are N-salicylidene, N-benzalidene, and N-dimethylnitrobenzalidene amino acids, respectively. Characterization of the ligands have been done using the following techniques; UV-visible spectroscopy, ^{1}H NMR spectroscopy, IR spectroscopy, melting/decomposition point, and solubility tests. The results will be presented in the poster.



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