

## Abstract

This study discusses the synthesis of Schiff bases and their metal complexes. Schiff base and metal complexes were made using a previously suggested approach, and they were identified using IR, UV, and PL analyses. A computed IR peak at  $1592\text{ cm}^{-1}$  indicates the presence of an imine functional group in the synthesised ligand. The outcomes from UV/Vis were equally convincing. Using the well diffusion approach, synthetic chemicals were used to perform antibacterial activity. Utilizing the ABTS assay, antioxidant activity was evaluated. PL results were not very encouraging while, antibacterial activity demonstrated convincing outcomes. Additionally, the antioxidant activity manifested notable outcomes.

**Keywords:** Antibacterial activity, physical properties, *Bacillus anthracis*, *Staphylococcus epidermidis*, *Staphylococcus aureus*, Characterization analysis, Antioxidant activity, Schiff base ligand, Metal complexes