

ADME enabled synthesis, characterization and biological screening of benzo[b]thiophen-3-carbaldehyde-derived Schiff base and its metal complexes

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ABSTRACT 2-([(1-Benzothiophen-3-yl)methylidene]amino)phenol (Schiff base) and its Co(II), Ni(II) and Cu(II) metal complexes were synthesized and screened for their antimicrobial and antifungal potential. The synthesized metal complexes were characterized using Fourier Transform Infrared, ultraviolet, high-resolution mass spectrometry and thermogravimetric analysis. All the metal complexes had co-ordination number 4 and possible distorted tetrahedral structure for Co(II) and distorted square planar structure for Ni(II) and Cu(II). ADME studies of the complexes were performed to gain their *in silico* properties.

KEYWORDS ADME, antifungal activity, antimicrobial activity, benzo[b]thiophen-3-carbaldehyde, Schiff base.

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