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Synthesis, Characterization And Biological Studies of Metal Complexes With 3-Amino-5-Bromobenzofuran-2-Carboxamide Schiff Base

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ABSTRACT

In this study the new Schiff base 5-bromo-3-(((2-chloroquinolin-3-yl)methylene)amino)benzofuran-2-carboxamide and its metal complexes of Co(II), Ni(II), Cu(II), Zn(II), Cd(II) and Hg(II) have been synthesized. The structural features were determined on the basis of their elemental analysis, UV-Visible, magnetic susceptibility, molar conductance and characterized by IR, UV– Vis, ^{1}H NMR, mass data. All the complexes are of ligand is ML_2 which is 1:2 ratio of octahedral geometry. The antimicrobial activity is carried out and some of the complexes have exhibited good biological activity. In addition, the influence of DNA cleavage on all the complexes was analyzed by agarose gel electrophoresis method.

Keywords: Benzofuran, quinoline, Schiff base, DNA cleavage, antimicrobial activity.