Poster Presentation

MS012.P36

Five coordinate copper(II) complexes of saccharin with pyridine and dmf

Md Aftab Ali Shaikh¹

¹Institute Of Leather Engineering And Technology, University Of Dhaka, Dhaka, Bangladesh E-mail: aftabshaikh@du.ac.bd

A. A. Shaikh1 and G M Golzar Hossain2

1Institute of Leather Engineering and Technology, University of Dhaka, Dhaka 1209, Bangladesh 2Department of Chemistry, University of Dhaka, Dhaka-1000, Bangladesh

The copper(II) saccharinate complex containing pyridine and dmf have been prepared and characterized by elemental analyses, IR, UV-Visible, magnetic measurements, thermal analysis and single crystal X-ray diffraction methods. The crystal structure of aqua-bis(pyridine)di(saccharinato)copper(II) [Cu(sac)2(py)2(H2O)] and diaqua-(dimethylformamide)-di(saccharinato)copper(II) [Cu(sac)2(H2O)2(dmf)] (sac = saccharinate anion; py = pyridine and dmf = dimethylformamide) have been determined. The compounds crystallize in the orthorhombic space group Iba2 with Z = 4 and the Cu(II) ion presents a CuN4O square pyramidal coordination sphere. Two one-electron electrochemical redox processes have been followed by both of the complexes.

Keywords: Cu(II) complex, crystal structure, redox prrocess