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SYNTHESIS AND NMR ASSIGNMENTS OF SOME Zn(II) AND Cd(II) COMPLEXES OF ACETYLENIC AMINES LIGANDS WITH THEIR BIOLOGICAL ACTIVITY

Omar Hamad Shehab AL Obaidi

Abstract: Acetylenic amines ligand N,Ndiethyl Propargyl Amine, N-Propargyl Pyrrolidine and NPropargyl3methyl Piperidine formed by reaction of Propargyl bromide and(N,Ndiethyl amin , 3-methyl Piperidine and Pyrrolidine), and its Zn(II) and Cd(II) complexes were synthesized . their structure were elucidated on the basis of elemental analysis ,spectral (IR, NMR and UVVIS). atomic absorption, Molar conductivity measurements, molar ratio studies and melting points. The complexes exhibit an octahedral geometry around the metal center. Conductance data of the complexes suggested them to be nonelectrolytes. The bi dentate behavior of ligand was proposed on the basis of spectral studies. The free ligand and its complexes have been tested for their antibacterial activities against several human pathogenic bacteria: (Streptococcus paecalies, Staphylococcus aureus),(Escherichia coli, psedomonas aeruginosa) . the first group are Gram positive while

the second group are Gram negative (by using agar well diffusion method). Finally, it was found that compounds show different activity of inhibition on growth of the bacteria.