



Journal of Applicable Chemistry

2014, 3 (5): 2084-2089

(International Peer Reviewed Journal)



Preparation and Characterization of Some Gold (III) Complexes with Organic Ligands

Mohammed A. Awaad and Zeyad k. Abdulrazzaq*

*Education College for Pure Science, Al-Anbar University, **IRAQ**

Email: ziad_77kw@yahoo.com

Accepted on 13th August 2014

ABSTRACT

A new four Au(III) complexes was prepared by the following steps , 1st synthesis of four ligands tow chalcone ligands (L1, L2) to preparation (M1, M2) complexes and two azo ligands contain hetero cyclic ring (L4, L3) to preparation (M3 , M4) complexes , 2nd synthesis of Au(III) complexes by the reaction of four prepared ligands and gold (III) chloride , Their structures were elucidated using spectroscopic techniques such as FT- IR (Infrared), ¹H-NMR , Elemental analysis , UV-Vis and physical properties such as change in color and melting point , the number of ligands in the complexes determined by using molar ratio method ,The percentage of the metal in the complexes determined by using atomic absorption technique . The results show compatibles with the theoretical studies of the proposed formula (square planar) for the synthetic complexes.

Keywords: Gold(III) Complex, Chalcon, Ligands.
