

Synthesis and characterization of thiolate-Ag(I) complexes by solid-state and solution NMR and their antimicrobial activity. Isab, Anvarhusein A.; Wazeer, Mohammed I. M..

Department of Chemistry, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. *Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy* (2007), 66A(2), 364-370. Publisher: Elsevier B.V.

Abstract

Ag(I) complexes of several thiolates were prepared. These complexes were characterized by elemental analysis and ^{13}C NMR spectroscopy. All the Ag(I)-thiolate complexes are polymeric in nature. Therefore, ^{13}C CP MAS NMR is being used extensively to analyze the binding site of the ligand and the nature of complexation. A significant shift difference was observed for S binding site whereas smaller shift was observed for carboxylate binding site. The antimicrobial activities for Ag(I)-glutathione complex were measured and compared with Ag(I)-captopril complex.