

X-ray structure and ^{77}Se , ^{31}P and ^{13}C MAS NMR of the dinuclear complex 1,2-bis(selenourea)- $\kappa^2\text{Se}, \kappa^2\text{Se}$ -1,2-bis(trimethylphosphine)digold(I) chloride. Fettouhi, Mohammed.; Wazeer, Mohamed I. M.; Ahmad, Saeed; Isab, Anvarhusein A. Department of Chemistry, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. Polyhedron (2004), 23(1), 1-4.

Abstract

The single crystal x-ray structure of the title compd. was detd. in tetragonal space group $P4_2/mnm$, with a 10.7588(6), c 18.6845(14) Å, $Z = 4$, $d_c = 2.650$; $R = 0.0235$ for 2403 reflections. The $[\text{Me}_3\text{P-Au-(selenourea)}]$ units are dimerized and adopt a binuclear structure characterized by a metal-metal interaction (Au-Au 3.0386(5) Å) and a torsion angle of $69.71(2)^\circ$. H bonding takes place between the selenourea ligands and the chloride ions. The principal components of the ^{77}Se , ^{31}P and ^{13}C shielding tensors were detd. from solid-state NMR data.