

# Metallation of Ligands with Biological Activity: Synthesis and X-Ray Characterization of $[(\text{SDAZ})_2\text{Au}_2(\text{dppe})]$ (SDAZ = Sulphadiazinide Anion; dppe = 1,2-Bis(diphenylphosphanyl)ethane)

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Sulphadiazine, [4-amino-*N*-(2-pyrimidinyl)-benzenesulfonamide], reacts with  $(\text{dppe})\text{Au}_2\text{Cl}_2$  and triethylamine in methanol to produce  $[(\text{SDAZ})_2\text{Au}_2(\text{dppe})]$ . The structure of this novel complex was analyzed by single crystal X-ray diffraction. In  $[(\text{SDAZ})_2\text{Au}_2(\text{dppe})]$  the ligands  $\text{SDAZ}^-$  and dppe have approximately the same bond distances and angles as found for the protonated and free ligand, respectively. The compound is assembled essentially of two gold atoms bonded to the phosphorus centers of one 1,2-bis(diphenylphosphanyl)ethane molecule (in an *anti* conformation). The coordination sphere is completed with a *trans* sulphadiazine ligand on each gold atom. Because of their fairly high reactivity, the two aromatic amine groups in the SDAZ ligands represent important sites for the chemical modification of the complex with biological purposes.

*Key words:* Sulphadiazine Complexes, Bioinorganic Chemistry of Gold, Metallation of Biological Ligands