

## MoP-2

### EXCHANGE REACTIONS OF RHENIUM HYDROXO AND ALKOXO CARBONYL COMPLEXES $[\text{Re}(\mu\text{-OR})_3(\text{CO})_6]^-$ (R = H, Me) WITH ALCOHOLS AND THIOLS

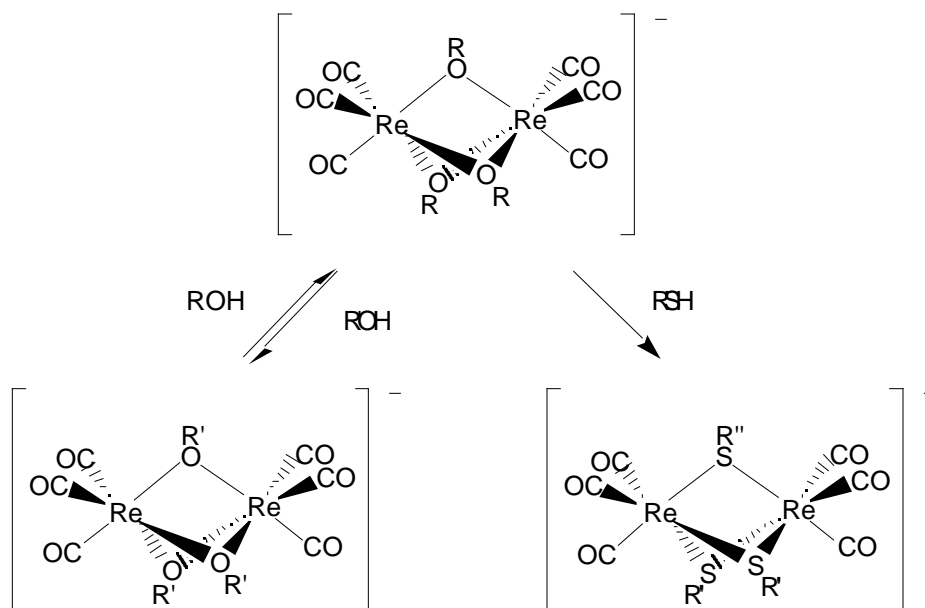
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Metal complexes possessing ligands that are easily displaced under physiological conditions are attractive candidates for screening as anti-tumour drugs analogous to cisplatin<sup>1</sup>. We wish to report on the facile ligand-exchange reactions of the rhenium hydroxo and alkoxo carbonyl complexes  $[\text{Re}(\mu\text{-OR})_3(\text{CO})_6]^-$  (R = H, **1**; Me, **2**) with alcohols and other protic compounds, particularly thiols.



Solutions of partially- and completely-ligand-exchanged species derived from complexes **1** and **2**, unidentifiable by NMR spectroscopy, were studied using electrospray mass spectrometry (ESMS), a technique which has been applied to the detection of reaction intermediates<sup>2</sup>. Novel fragmentation pathways for complexes **1** and **2**, as well as exchanged species derived from these, have been observed<sup>3</sup>.

#### References:

1. Alberto, R.; Egli, A.; Abram, U.; Hegetschweiler, K.; Gramlich, V. and Schubiger, P.A. J. Chem. Soc., Dalton Trans. 1994, 2815, and references therein.
2. Barnard, C.F.J.; Fricker S.P.; and Vaughan, O.J. In Insights into Speciality Inorganic Chemicals; Thompson, D., Ed.; Royal Society of Chemistry: Cambridge, 1995; p 35.
3. Jiang, C.; Henderson, W.; Hor, T.S.A.; McCaffrey, L.J.; and Yan, Y.K. Chem. Commun. 1998, 2029.