**Abstract**

Dicarbonyl β-diketonatorhodium(I) complexes of the type [Rh(CO)2(LL)] (LL = β-diketonate) have been prepared. [Rh(CO)2(LL)] reacts with PPh3 or AsPh3 to give rise to complexes of the type [Rh(CO)(LL)L'] (L' = PPh3 or AsPh3) by the replacement of one of the CO groups by PPh3 or AsPh3. All the complexes have been characterized by elemental analysesand IR and electronic spectral data.