Iron(II) and manganese(I) complexes containing diphosphine ligands. An infrared study of BrMn(CO)2 (dppm)P(OPh)3 and CpFe(dppe)R (R = I, CN)

Campos, M. M.V.

Diaz, C. V.

Figueroa, K.

Padilla, L. C.

N, Lara H.

Diaz, G. F.

Infrared spectra in the region 4000-70 cm-1 are recorded for [1,2-bis(diphenylphosphino)methane](triphenylphosphite)bromo (cis,cis- and trans-dicarbonyl)manganese, and ?5-cyclopentadienyl-[1,2-bis(diphenylphosphino)ethane]iron(cyano) and -iodo complexes. Particular emphasis is given to the assignment of the metal-ligand bands, for which a normal coordinate analysis based on a simplified molecular model is performed. Effect of the isomerization and ligand substitution on the structure, stability and reactivity of all the complexes is also discussed.