Dihydrogen and dinitrogen rhodium complexes bearing metallocene-based pincer ligands

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Pincer complexes are widely used in catalysis and activation of smoll molecules. We present here the synthesis and spectroscopic study of rhodium dihydrogen an dinitrogen complexes with metallocene-based pincer ligands Relative electron donor ability of ferocene-, ruthenocene- and benzene-derived pincer ligands, as well as H-H distance were elucidated based on *J*_{HD} coupling constants for dihydrogen complexes.