Diironhexacarbonyl Clusters Coupled to Naphthalimides





The search for synthetic models for the active site of hydrogenase enzymes is of major importance in the development of catalysts for hydrogen evolution. Our design of [Fe-Fe] hydrogenase models incorporates electroactive groups (Naphthalimides). We are exploring the use of substituents on the naphthalimides to modulate the electronic and electrochemical properties of the compounds. We have successfully prepared and characterized eight new models and one such model is given below. These models have been demonstrated to catalyze the electrochemical generation of hydrogen at modest potentials.