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Acknowledgments; References; 3 Mechanistic Understanding of Catalytic CO2 Activation from First Principles Theory; 3.1 Background; 3.2 CO2 activation and hydrogenation on transition metal surface; 3.2.1 Methanol from CO2 Hydrogenation on Cu Surfaces; 3.2.2 Methanol from CO2 Hydrogenation on Modified Cu Surfaces
3.2.3 CO2 Hydrogenation on Ni(1 1 0) and Ni(1 1 1)3.3 CO2 activation and hydrogenation on oxide supports; 3.4 CO2 activation and hydrogenation on oxide supported metal catalysts; 3.5 Concluding Remarks; Acknowledgment; References; 4 Catalytic Activation and Conversion of Carbon Dioxide into Fuels/Value-Added Chemicals Through C-C Bond Formation; 4.1 Introduction; 4.2 Chemical activation of carbon dioxide; 4.2.1 Coordination Chemistry of CO2 and Metals; 4.2.1.1 Molecular Geometry and Spectroscopic Properties of CO2; 4.2.1.2 Interaction of CO2 with Metals
4.2.2 Synthesis and Characterization of Stable Complexes of CO2 with Metals 4.2.2.1 General Characterization Methods; 4.2.2.2 Synthesis of Stable CO2-Metal Complexes; 4.2.2.3 Stable Complexes of CO2 Coordinated to Metals; 4.2.2.3.1 Coordination via a CE0B8;O double bond; 4.2.2.3.2 Coordination via carbon only; 4.2.2.3.3 Coordination via oxygen only; 4.2.2.3.4 CO2 as Bridging Ligand; 4.2.3 Reactivity of Complexes of CO2 with Metals; 4.2.3.1 C-O Bond Cleavage and Oxygen Transfer; 4.2.3.2 Reactions with Electrophiles; 4.2.3.3 Reactions with Nucleophiles
4.2.4 Activation of CO2 Using N-Heterocyclic Carbenes and FLPs

Sommario/riassunto

New and Future Developments in Catalysis is a package of books that compile the latest ideas concerning alternate and renewable energy sources and the role that catalysis plays in converting new renewable feedstock into biofuels and biochemicals. Both homogeneous and heterogeneous catalysts and catalytic processes will be discussed in a unified and comprehensive approach. There will be extensive cross-referencing within all volumes. This volume presents a complete picture of all carbon dioxide (CO2) sources, outlines the environmental concerns regarding CO2, and