

**【Chemistry】**

<b>Title of Project</b>	Reversible Conversion between Electrical Energy and Chemical one Mediated with Coordination Complexes
<b>Principal Investigator Name</b>	Koji Tanaka, Institute for Molecular Science, Department of Life and Coordination-Complex Molecular Science, Professor
<b>Abstract of Research Project</b> <b>Number of Researchers : 1</b> <b>Term of Project: 2008-2011</b>	Since James Watt's invention of steam engines about 250 years ago, our society has been heavily relying on thermal energy released by combustion of tremendous amounts of fossil fuel. Conversion of electrical energy to chemical one would provide the most reasonable methodology to fix non-steady natural energies and to store extra electricity generated by power plants at night. The aim of this study is to develop molecular catalysts that are able to catalyze conversion between carbon dioxide and methanol through six-electron redox reactions of those molecules.