

【Abstract of 2009 Grant – in – Aid for Scientific Research on Innovative Areas  
(Research in a proposed research area)】

<b>Title of project</b>	Coordination Programming - Science of Molecular Superstructures for Chemical Devices
<b>Head Investigator Name</b>	NISHIHARA Hiroshi, The University of Tokyo, School of Science, Professor
<b>Abstract of Research Project</b>	<p>The research project aims to explore the methodology of the design and construction of functionalized superstructures based on a new concept of “Coordination Programming”. This concept utilizes the advantages of coordination chemistry to control the chemical bonds and arrangements of metal atoms and ions reversibly and precisely. We further aim to develop innovative chemical devices using the superstructures.</p> <p>The project is divided into four groups as follows.</p> <ol style="list-style-type: none"><li>1. Molecular circuit systems based on “Interfacial Programming”.</li><li>2. Electronic and magnetic function systems based on “Cluster Programming”.</li><li>3. Energy conversion and chemical conversion based on “Supramolecular Programming”.</li><li>4. Functionalized soft materials based on “Bio-inspired Programming”.</li></ol>
<b>Term of Project: 2009–2013</b>	