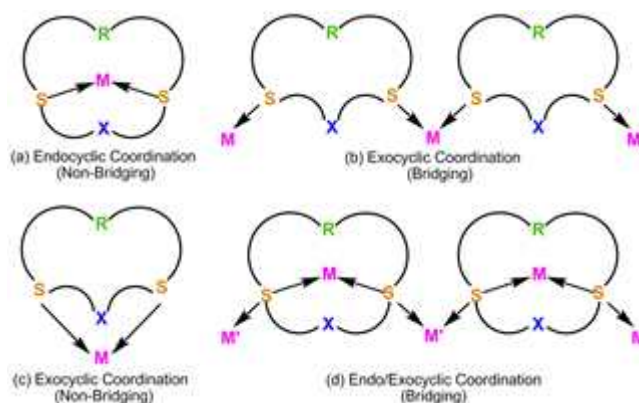

화학과 대학원 세미나

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Our Group's Recent Research on Metallocupramolecules of Macrocycles 거대고리 금속초분자의 최근 연구

Macrocyclic coordination chemistry has been a center of supramolecular science for last five decades. Due to not only the personal enthusiasm but also the surge in merging to the nanoscience, the title area became a long-lasting research topic during my staying at Gyeongsang National University (GNU) since 1984. The original intent of this presentation is to serve as a concise introduction of our group's works on the metallocupramolecular chemistry of (thia)crowns and their extended derivatives in the fields of calixarenes and pillararenes. Owing to lack of time, however, some outlines on the specified topics and the latest issues are included.

From macrocyclic building blocks, assembly of discrete metallocupramolecules such as sandwiches, cyclic oligomers, capsules etc. and low to high dimensional coordinative networks including polycatenanes and polyrotaxanes in either endo- or exocyclic mode (*see below*) have been our great interests. The exo-coordination approach toward the coordinative networking is opening up a new supramolecular coordination chemistry by bridging the macrocyclic coordination chemistry and metal-organic frameworks. In particular, structural transformation of these materials via an SCSC manner by external stimuli including heat, light, and anion-exchange have been our hot issues. In some cases, metal ion-induced and anion-controlled supramolecular system provide not only the exciting fundamental properties but also their applications. For example, some structure-property relations are associated with sensors and photo-switches.



I am grateful to all the past and current group members for their excellent contributions. I also appreciate all the collaborators inside and out of the country. I am confident that the memories of the colleagues of the Inorganic Chemistry Division in KCS and the Chemistry Department in GNU with humor and passion will last for a long time. Finally, I am grateful to the faculty members of the Chemistry Department at Korea University including Prof. Hyo Jae Yoon for the invitation. I am very delightful to give this presentation in this place where I started my chemistry study under the respectful professors including Prof. Si-Joong Kim, who was my supervisor.

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