

**乞**  
**研究室内掲示**

## 第 20 回・理学部化学科コロキウムの御案内

第 20 回理学部化学科コロキウムとして、下記のミニ国際シンポジウムを開催いたします。多数のご来場をお待ちしております。

日時：2003 年 9 月 19 日（金曜日）15：00～16：50

場所：国際交流会館・大会議室

**15:00-15:20**

**M.S. Takahiro Soma**

(Doctoral Candidates, KAMIGATA Group, TMU)

***Effect of Intramolecular Amino Group on Racemization of Optically Active Selenoxide s.***

**15:20-15:50**

**M.S. Masashi Hasegawa**

(Doctoral Candidates, IYODA Group, TMU)

***Association Properties of Poly(tetrathiafulvalenylethynyl)-benzenes and their Cation Radicals.***

**15:50-16:00**

*Coffee Break*

**16:00-16:50**

**Professor Frank H. Köhler**

(Professor of Chemistry, Anorganisch-chemisches Institut, Technische Universität München, D-85747 Garching, Germany)

***Approaching Paramagnetic Metallocene Polymers.***

連絡先：理学部・化学科・山下正廣（内線3570）

## Approaching Paramagnetic Metallocene Polymers

Frank H. Köhler

Anorganisch-chemisches Institut, Technische Universität München, D-85747 Garching,  
Germany

Coupling of metal-containing building blocks is expected to lead to interactions between the metal centers and hence to give rise to new properties. In particular, spin-carrying centers may show magnetic interactions that would ideally be adjustable by the preparative chemist. Aiming at this goal, syntheses are reported, by which sandwich molecules of transition metals are interconnected either directly or via short bridges.

Well-characterized di- and trimetallic compounds serve as models for the study of next-neighbor and next-but-one-neighbor interactions by using NMR spectroscopy, cyclic voltammetry, and magnetic measurements. The interactions depend on the shape of the molecule and on the localization of the valencies, when mixed-valence compounds are present.

Straight-forward modification of the syntheses leads to well-defined polymeric metallocenes. Their structures and properties follow from mass and NMR data, from redox studies, and from X-ray crystal analysis.