

CONFERENCE

XXth International Conference on Organometallic Chemistry

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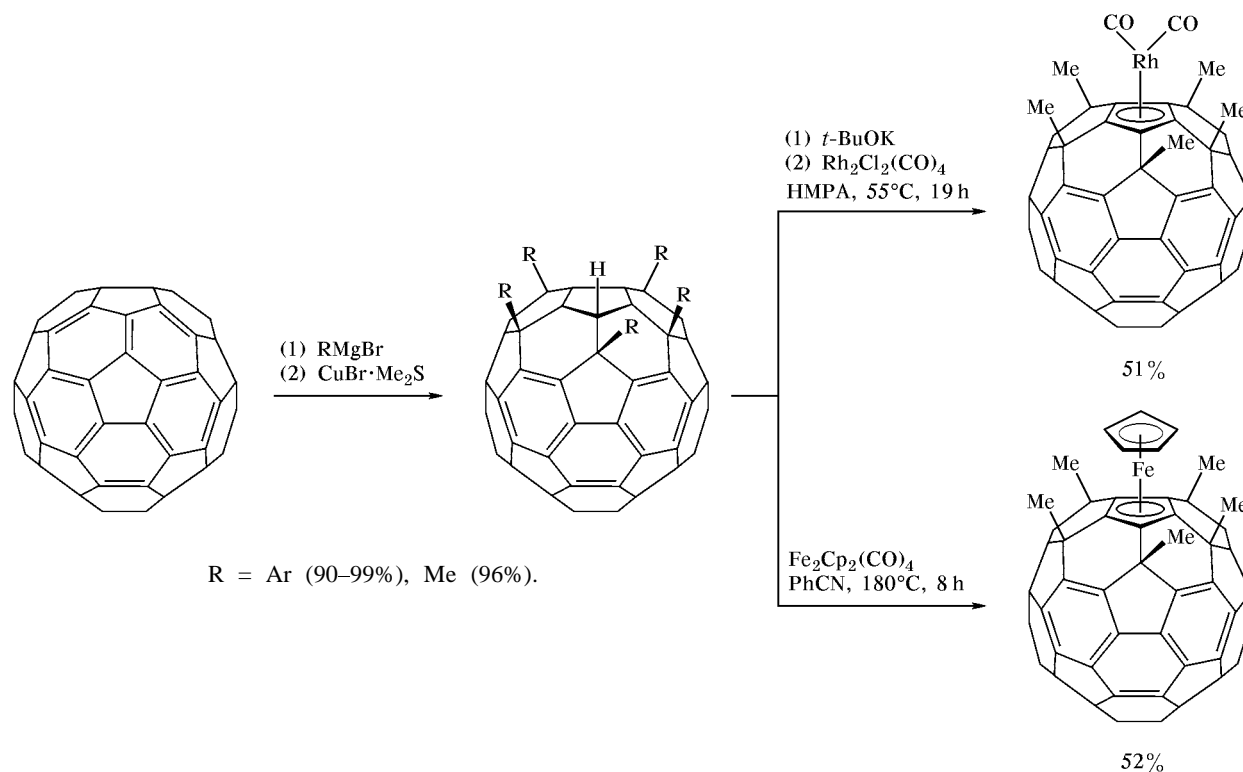
The XXth International Conference on Organometallic Chemistry (ICOMC) was held on July 7–12, 2002, on Corfu Island (Greece). The conference collected a large number of participants and had a great success despite unfavorable weather conditions (air temperature exceeded 30°C). In the recent time, this conference covers versatile aspects of organometallic chemistry, including not only traditional ones (synthesis of organometallic compounds, study of their structure and properties, and preparation of coordination compounds and new materials) but also organic synthesis with the use of organometallic compounds as reagents and catalysts (which is a traditional subject of OMCOS). Such deviation in the conference lines aroused discussions in the Organizing Committee, for there were both adherents and opponents, but it

undoubtedly favored participation of specialists in various fields. The diversity of topics was expressed by plenary lectures which were brilliantly read by prominent scientists.

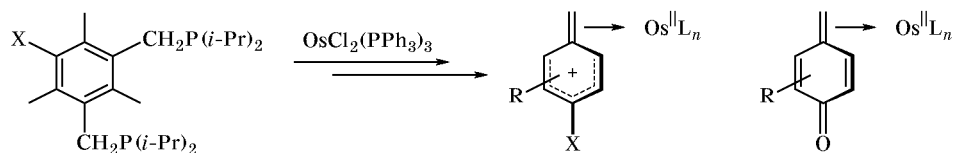
R.H. Grubbs (USA) reported on new catalytic systems for olefin metathesis, which ensure formation of C–C bonds in large and small molecules, depending on the kind of metathesis (ROMP, RCM, XMET). New highly effective ruthenium catalysts make it possible to obtain with high selectivity compounds having trisubstituted double bonds. The application of this methodology to the synthesis of functionally substituted polymers was also demonstrated.

E. Nakamura (Japan) presented a very elegant lecture on the synthesis of η^5 -fullerene complexes of iron and rhodium (Scheme 1) and their use in the

Scheme 1.

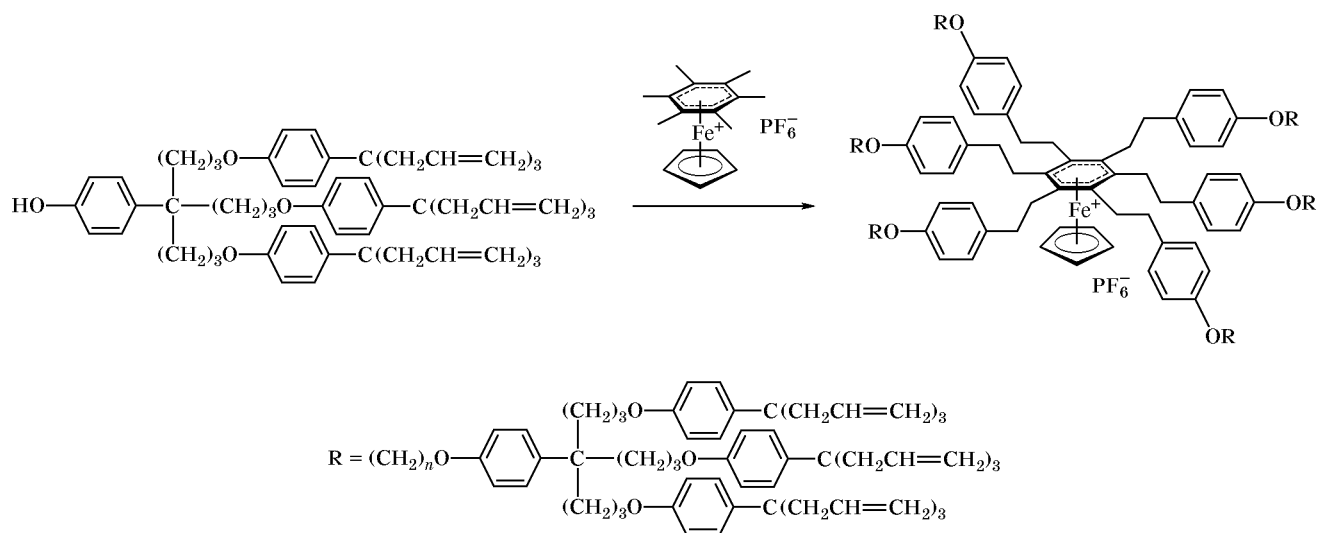


Scheme 2.



X = H, OH.

Scheme 3.



preparation of new materials. New hydride and heterocyclic metal complexes (Pd, Rh, Ir), their synthesis, nature of bonds therein, properties, unusual rearrangements and transformations, and catalytic activity in the Heck reaction, hydrogenation, and oxidation were considered in the lecture of R.H. Crabtree (USA). The lecture induced a great liveliness not only due to its scientific aspects but also because of high expressivity of the author.

As usually, much new and surprising information was given by D. Milstein (Israel). The author considered the ability of transition metal complexes (Rh, Ir, Ni, Pt, Pd, Os) to activate C–C bonds and compared the activation of C–C and C–H bonds from the viewpoints of kinetics and thermodynamics. Examples of metal insertion into C–C bonds and their catalytic hydrogenation were given (Scheme 2).

Catalysis by nanoscale metal–dendrimer molecules and dendrimer effect on the catalytic activity were the subjects of the lecture of D. Astruc (France) (Scheme 3). The lecture attracted attention not only due to its content but also by its excellent presentation. The lecture of P. Jutzi (Germany) was concerned with strategies in the cyclopentadienyl chemistry of

p-block elements. This topic is important for organometallic chemistry but is more distant from organic chemistry.

Session lectures also covered various problems; however, only a few of them were close to organic chemistry: *Ruthenium Carbene Species in Catalysis* – by P.H. Dixneuf (Spain); *Ruthenium(II) Unsaturated Carbenes: Novel Synthetic Applications* – by J. Gimeno (Spain); *New Types of Chiral Ligands in Asymmetric Catalysis* – by M.T. Reetz (Germany); *Chiral Metal Complexes in Asymmetric Catalysis* – by C. Moberg (Sweden); *New Reactions of C_{sp^2} -Heteroatom Bond Formation* – by I.P. Beletskaya (Russia); *Pd-Complex Promoted Ring-Opening Polymerization of Small-Membered Ring Hydrocarbons* – by K. Osakada (Japan); *Self-Assembled Nanosize Organometallic Catalysts* – by G. van Koten (The Netherlands).

Most oral communications, as well as tremendous number of posters, dealt with the synthesis of complexes and their structure and transformations.

The Organizing Committee with Prof. C. Scretta at the head made all possible for the conference to be held successfully. The next, XXIIth Conference will be held in Munich (Germany).