

Carbene Chemistry Conference

The Ocean Maya, Playa del Carmen, Mexico

February 18 – 21 2009

Chair: Guy Bertrand

The leaders of the field discussed different aspects of carbenes, with a special emphasis on their role in organometallic chemistry.

One of the topics discussed was the importance of carbene transition metal complexes in organic synthesis and in catalysis. For examples, dirhodium metal carbene reactions, gold carbenoids in catalysis, hydrocarbon functionalization by carbene insertion with coinage metal catalysts, synthesis of heterocycles via Au- and Rh Carbene Intermediates, influence of a metal-neighbouring ligand sphere on the reactivity of bis(monopyridocarbene) Pd complexes, Fischer carbenes as multitasking building blocks for organic synthesis, and the impact of abnormal NHCs on the catalytic activity of the corresponding complexes. Some more applied uses of metal carbenes were also presented, such as organometallic switches and low molecular mass gelators evolving from metal carbenes, and the role of NHC silver complexes in medicinal chemistry.

Recent results concerning stable free carbenes were reported such as the preparation of macrocyclic poly-NHCs and ylides stabilized carbenes, the rearrangement of amino-(bi)aryl-carbenes and amino-hydrazino-carbenes, the intramolecular addition of N-heterocyclic carbenes to imines and insertion into N-H bonds, the small molecule activation by frustrated carbene-borane Lewis pairs, and the role of N-Heterocyclic carbenes as catalysts for controlled polymerization reactions.

The Conference also dealt with the heavier analogues of carbenes, with the presentation of silylene and stannylene complexes for new stoichiometric and catalytic transformations. Lastly, related divalent carbon(0) compounds were discussed both computationally and experimentally.

All attendees enjoyed the very relax atmosphere of the Conference. Rather long discussions followed all presentations, but were always very friendly. I am already aware of several scientific collaborations that have been initiated during this Conference. Thanks to a light schedule, the attendees had a lot of opportunities to meet and develop new friendships.

The Conference room fit perfectly our needs, and somebody from the Zing organization was always there to take care of the projection, sound...The hotel was very nice, and the restaurants quite acceptable. The fact that everything is included in the registration fees is a nice feature. That favors a lot the social interaction between the attendees who have not to think about their budget. Lastly, The Mayan Riviera can easily be reached from many places via Cancun airport.

Chairing a Conference is usually quite painful, but for a Zing Conference, this is totally different. The role of the Chairman is essentially to select the invited speakers, and the oral presentations. This, I can do it ten times a year!