



## Preface

The Ninth International Symposium on the Activation of Dioxygen and Homogeneous Catalytic Oxidation (ADHOC-2005) was held at the University of Cologne, Germany, 25–29 July 2005. ADHOC conferences take place every 3 years (2002: Atlanta, USA; 1999: York, U.K.). ADHOC-2005 featured a total of 45 lectures and 90 poster presentations. As evidenced by the attendance of more than 200 participants from 27 countries, homogeneous oxidation catalysis continues to be a very active research area, both from an academic and an industrial point of view. ADHOC-2005 covered basically all aspects of this field, including novel oxidative processes for the bulk production of oxygenated chemicals, bleaching catalysis, stereoselective and biomimetic transformations, mechanistic and theoretical investigations on the molecular level, and the use of enzymes and microorganisms to effect oxidation reactions. It was very encouraging to see the large progress that has been made over the last 3 years, and to meet many young researchers that have joined the endeavour! It is also clear that we are getting closer to some of the “holy grails” in oxidation catalysis (such as bleaching or selective oxidation with atmospheric oxygen, at low temperature), but much further effort is still required to make such methods broadly and generally applicable. Mechanistic knowledge will help to pave the way, and it was good to see that both the functioning of enzymatic and low-molecular weight oxidation catalysts continue to be “hot topics” in oxidation chemistry.

ADHOC-2005 was a most successful and enjoyable conference. It is hoped that this volume, which summarizes the

contents of 23 invited lectures and 12 contributed papers and reflects the excitement felt by the participants, will be a source of future inspiration and encourage further scientific exchange.

It was a pleasure to serve as an organizer of ADHOC-2005 and as the guest editor for this volume. Thanks to all authors—without your efforts, this splendid compilation of up-to-date oxidation chemistry would not have been possible. Furthermore, I wish to acknowledge the help and enthusiasm of Dr. Felix Cleemann, in my research group, who handled the communication with both authors and referees—and managed to maintain perfect order!

ADHOC-2008, to be organized by Giulia Licini and Marcella Bonchio (Univ. Padova and ITM-CNR) together with Valeria Conte (Univ. Roma Tor Vergata), will take place in Venice (20–25 July 2008). The ADHOC International Advisory Board wishes all three of you, and all participants, lots of success! Personally, I am already looking forward to seeing how our quests for the “holy grails” in oxidation catalysis will have advanced over the next years.

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