

## *Preface*

### **Preface to the ChemBond issue**

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The articles of this special issue provide a representative sampling of the scientific contributions presented at the “Chemical bonding: state of the art in conceptual quantum chemistry” symposium held in La Colle-sur-Loup (France) from June 1–4, 2000.

The idea of this meeting arose from discussions we had during the summer of 1999. We realized that the concept of chemical bonding, though at the center of our thinking about chemical structure and reactivity, has not been in the focus of any specific chemistry meeting for almost 30 years. Perhaps the last significant symposium devoted to this topic was the international seminar organized in Paris during the academic year 1973–1974 by Raymond Daudel and entitled “Localization and delocalization in quantum chemistry”. Since then, many new ideas and concepts emerged, providing sometimes contradictory but most often complementary views about chemical bonding. Therefore, it seemed to us timely to get together at least some of the leading scientists interested in the conceptual aspects of chemical bonding. In order to favor ample discussion, we decided to organize a small meeting with no more than 60–70 participants and including senior and young scientists as well.

About 65 scientists from Australia, Canada, the Czech Republic, Finland, France, Germany, Hungary, Italy, Poland, Spain, Sweden, Switzerland, the UK and the USA attended the conference. Eighteen invited and ten contributed talks as well as 28 posters were presented

followed by lively and fruitful discussions, sometimes prolonged informally late into the night. It was decided unanimously to hold a second meeting of similar style on the same topic, and Juan Andrés and José Molina Molina kindly accepted to organize ChemBond II in Spain during the spring of 2002.

Unfortunately, terrible news arrived a few days after the end of the meeting: our friend José Molina Molina died unexpectedly of a heart attack. We will never forget the warm personality of this eminent scientist who was a very nice colleague and a friend of most of us. This special issue is dedicated to his memory.

Fifteen refereed contributions based on the lectures or posters presented at La Colle-sur-Loup are collected in the present issue. They are introduced by a synthesis written by W.H.E. Schwarz, who lays out the most important problems concerning the concept of chemical bonding which emerged during the meeting.

The guest editors and the organizers of the symposium wish to express their warm gratitude to all participants who contributed to the success of the meeting and to acknowledge all the persons who helped in different phases of the organization. Special thanks to the contributors to the special issue, who made efforts to cope with the deadlines, and last but not least to the referees.

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