

# 151

## Structure and Bonding

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## Aims and Scope

The series *Structure and Bonding* publishes critical reviews on topics of research concerned with chemical structure and bonding. The scope of the series spans the entire Periodic Table and addresses structure and bonding issues associated with all of the elements. It also focuses attention on new and developing areas of modern structural and theoretical chemistry such as nanostructures, molecular electronics, designed molecular solids, surfaces, metal clusters and supramolecular structures. Physical and spectroscopic techniques used to determine, examine and model structures fall within the purview of *Structure and Bonding* to the extent that the focus is on the scientific results obtained and not on specialist information concerning the techniques themselves. Issues associated with the development of bonding models and generalizations that illuminate the reactivity pathways and rates of chemical processes are also relevant.

The individual volumes in the series are thematic. The goal of each volume is to give the reader, whether at a university or in industry, a comprehensive overview of an area where new insights are emerging that are of interest to a larger scientific audience. Thus each review within the volume critically surveys one aspect of that topic and places it within the context of the volume as a whole. The most significant developments of the last 5 to 10 years should be presented using selected examples to illustrate the principles discussed. A description of the physical basis of the experimental techniques that have been used to provide the primary data may also be appropriate, if it has not been covered in detail elsewhere. The coverage need not be exhaustive in data, but should rather be conceptual, concentrating on the new principles being developed that will allow the reader, who is not a specialist in the area covered, to understand the data presented. Discussion of possible future research directions in the area is welcomed.

Review articles for the individual volumes are invited by the volume editors.

In references *Structure and Bonding* is abbreviated *Struct Bond* and is cited as a journal.

Suojiang Zhang • Jianji Wang • Xingmei Lu •  
Qing Zhou

Editors

# Structures and Interactions of Ionic Liquids

With contributions by

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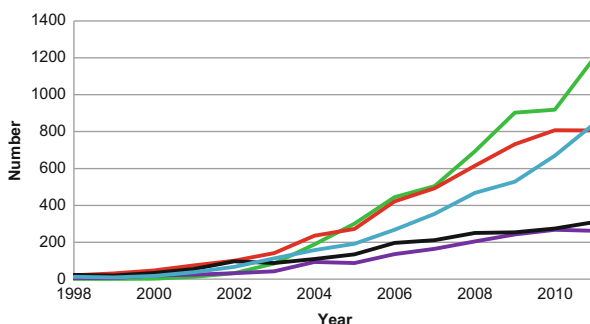
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# Preface

It is always an honour to be asked to write a Preface to a volume, and doubly so when the editor is so distinguished. Prof. Suojiang Zhang (Institute of Process Engineering, Chinese Academy of Sciences, Beijing) is one of the most respected chemists/chemical engineers in China, and has a long term interest in ionic liquids, having already published a book (Zhang S, Lu X, Zhou Q, Li X, Zhang X, Li S. *Ionic Liquids: Physicochemical Properties*. Elsevier, Amsterdam, 2009) on their physical properties.

Top four regions for producing ionic liquid primary publications (1998–2011). China (*green*), Europe (*red*), Japan (*purple*), USA (*black*), the rest of the world (*light blue*) (M. Deetlefs, M. Faselow and K.R. Seddon, to be published)



In a burgeoning market, with the frequent arrival of new books on ionic liquids (of variable quality), one has to examine the unique features of each volume. Here the answer is clear; the numbers of papers from different regions of the world are illustrated in the figure. In 2000, no papers had ever been published from China on ionic liquids; by 2011, more papers were being published from China than from any other geographical region. This book, with five of the six chapters being authored from within China, gives the rest of the world a chance to see, appreciate, and evaluate the Chinese contribution to this remarkable field, with special emphasis on the structure of ionic liquids and the influence of hydrogen bonding and aggregation

upon their physicochemical properties, thermodynamics, and spectroscopy. This is a book that no practitioner of the science, engineering, and art of ionic liquids should fail to have on their shelves.

A handwritten signature in black ink, appearing to read 'K. Seddon', written over a horizontal line.

Belfast, UK

Kenneth R. Seddon

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