

## Preface

Pedersen, Lehn and Cram helped launch the field of supramolecular chemistry in the late 1960s and early 1970s with their exploration of the molecular recognition of cationic guest species. This area immediately attracted the attention of many research groups and led *inter alia* to unparalleled advances in cation coordination and separation using synthetic molecular hosts. By contrast, the seeds of synthetic anion receptor chemistry, sown in 1968 by Park and Simmons' publication of a forward-looking JACS Comm. Ed. describing chloride complexation by an ammonium macrobicycle, were slower to germinate. Lehn and Schmidtchen made independent important contributions to the area in the 1970s but it was not until the mid to late 1980s that the supramolecular chemistry community devoted significant research effort to the complexation of anionic guests. This special issue of Coordination Chemistry Reviews celebrates the 35th anniversary of Park and Simmons' seminal publication and contains a variety of articles that provide an overview of the area from a wide range of chemical perspectives.

Hawthorne and Beer have independently approached the area from an inorganic perspective and their contributions illustrate the uses of Lewis acidic centres as anion-binding sites and of metals as reporter groups that signal the presence of an anionic guest species.

Hosseini has covered the field from a crystal engineer's point of view in his chapter on molecular tectonics, whilst Loeb, Bowman-James, Sessler and Gale, and Anslyn have contributed overviews that highlight the use of particular anion receptor groups (amides, ammoniums, pyrroles and guanidiniums, respectively). Hamilton and Davis have approached the topic by emphasizing a particular template (macrocycles and steroids, respectively). By contrast, Smith has taken a biological approach by detailing synthetic receptors for phospholipid head groups. Finally, as a complement to these individual contributions, a general review of progress in the anion binding area, covering years 2000 and 2001, has been generated and is included in this special issue.

I would like to express my thanks to all the authors for their contributions to this issue and to Barry Lever for agreeing to devote an issue of CCR to this fascinating topic.

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