Additions and Corrections

Balanol: A Novel and Potent Inhibitor of Protein Kinase C from the Fungus Verticillium balanoides [J. Am. Chem. Soc. 1993, 115, 6452–6453]. Palaniappan Kulanthaivel, Yali F. Hallock, Christie Boros, Sean M. Hamilton, William P. Janzen, Lawrence M. Ballas, Carson R. Loomis, Jack B. Jiang, Barry Katz, Jorge R. Steiner, and Jon Clardy

Page 6453: We inadvertently misplaced a hydroxyl functionality in structure 4. The correct structure is as shown below.

This correction does not affect the conclusions of the present paper.

Book Reviews *

Advances in Gas Phase Ion Chemistry. Volume 1. By Nigel Adams and Lucia M. Babcock (University of Georgia). JAI Press Inc.: Greenwich, CT. 1992. xii + 330 pp. \$78.50. ISBN 1-55938-331-3.

There is not any secret about the way to establish a successful new series of scholarly reviews in an area of chemistry: choose editors with outstanding scientific credentials who have the ability to persuade the best people to write comprehensive articles on their specialties. If you can combine this with a reasonable price, you have the start of a great series. JAI Press has launched Advances in Gas Phase Ion Chemistry with these ingredients well in mind, and Volume 1 should be of interest to all gas phase ion chemists and to many others as well. In Nigel Adams and Lucia Babcock, of the University of Georgia, they have chosen editors who have made remarkable contributions to the field and who have broad views of what is interesting and important. To inaugurate the series they have put together an eclectic mixture of reviews which combine the familiar with subjects which are less well-known.

Among the former, Kent Ervin and Carl Lineberger bring the subject of photoelectron spectroscopy of molecular anions up to date from earlier reviews. They give references to the many new papers in the field, but the emphasis is on a readable summary of the experimental methods now being used, together with case studies of specific examples of the application of the technique. The article should serve as an excellent introduction to the subject as well as a useful overview of new developments. Similarly, Diethard Bohme reviews gas phase chemistry initiated by atomic silicon cations, species of particular interest from the standpoint of interstellar chemistry. Rate constants and branching ratios for over 100 reactions of positively charged silicon ions and substituted silicon ions are given. This chapter is paired with one by Mark Gordon, Larry Davis, and Larry Burggraf on theoretical studies of hypervalent silicon anions in which semiempirical and ab initio computational methods are used to investigate the structure, energetics, and reactivity of anions like SiH₄F⁻. These more or less inorganic articles are complemented by that of Joe Grabowski on reactive anionic intermediates in organic chemistry. Again the article is noteworthy for its careful attention to discussions of how the data are obtained and interpreted and what are the pitfalls and limitations of the flowing afterglow technique. As in all the articles, the emphasis is on work from the author's laboratory, but related work is also covered where appropriate. Peter Armentrout provides a masterful survey of the work of his group on thermochemical measurements by guided ion beam mass spectrometry. The ion chemistry and thermochemistry of many metal ions as well as those of carbon, silicon, and nitrogen are covered.

The other articles in this volume are perhaps in less familiar fields and therefore are especially welcome. Murray McEwan discusses flow tube studies of small isomeric ions, as for instance HCN+ and CNH+. Techniques had to be devised to generate these isomeric species, many of which have been observed in space, and differences in their chemical behavior are described. Mark Smith and Michael Hawley survey their work on ion chemistry at extremely low temperatures, where ions are formed in a cold gaseous reaction mixture formed by a free jet expansion, subsequent ion molecule reactions occur, and these are monitored by time of flight mass spectrometry. Rate constants and branching ratios for a variety of reactions are reported and discussed. The volume is concluded by a particularly interesting article by Nigel Adams on the determination of the neutral products of electron-ion recombination. Since the neutral products of any type of ion reaction in the gas phase are formed in exceedingly small amounts, their detection poses formidable experimental problems. This chapter concludes with a discussion of the role electron-ion recombination may play in modifying the atmospheres of the planets.

In summary, this volume contains articles which will appeal to almost anyone with an interest in chemistry and should serve as an impressive launch vehicle for a welcome new series.

Charles H. DePuy, University of Colorado at Boulder

Crystal Fields for Transition-Metal Ions in Laser Host Materials. By Clyde Arthur Morrison (Harry Diamond Laboratories, Adelphi, MD). Springer-Verlag: New York and Berlin. 1992. xviii + 190 pp. \$69.00. ISBN 3-540-55465-3.

Morrison's monograph is composed of three sections: a brief introduction, a detailed description of the treatment of the compiled data, and a listing of 47 solid-state host materials and their associated transitionmetal guest ions. In the introduction he adds several points to ponder:

^{*}Unsigned book reviews are by the Book Review Editor.