

## Additions and Corrections

**Diastereoselective Ester Enolate Alkylations. Asymmetric Syntheses of 3-Alkyl-3-carbomethoxy-2-exo-methylenecyclohex-5-en-1-ones** [*J. Am. Chem. Soc.* **1992**, *114*, 3937–3943]. ARTHUR G. SCHULTZ\* and RICHARD E. TAYLOR

The absolute configurational assignment reported for the product of methylation (**3a**) of enolate **12** has been found to be in error.

Page 3938: An X-ray crystallographic structure determination of a material that is related to derivative **4a** by chemical interconversion necessitated a re-evaluation of the configurational assignment determined as shown in Scheme II. The conversion of **4a** to **10** which had originally produced material with an optical rotation reported to be  $[\alpha]_{\text{D}}^{27} +7.62^\circ$  (*c* 3.66,  $\text{CHCl}_3$ ) was repeated. The 1,2-dimethyl-1-acetylcyclohexane now obtained gave optical rotations of  $[\alpha]_{\text{D}}^{24} -4.0^\circ$  (*c* 0.84,  $\text{CHCl}_3$ ) and  $-4.5^\circ$  (*c* 0.80,  $\text{Et}_2\text{O}$ ) consistent with opposite absolute configurational assignment for all structures shown in Scheme II.

Page 3939: On the basis of the X-ray crystallographic determination and attendant experimental information, the rationale for diastereoselectivity presented in Figure 1 should be disregarded.

**Excited-State Photoreactions of Chlorine Dioxide in Water** [*J. Am. Chem. Soc.* **1992**, *114*, 4856–4860]. ROBERT C. DUNN and JOHN D. SIMON\*

During the preparation of the above manuscript the assignment of two of the three  $\text{OClO}$  excited states was inadvertently reversed. At the end of the third paragraph of the introduction the sentences "Coupling to the low-lying  ${}^2\text{B}_2$  excited state gives rise to dissociation into O and vibrationally hot ClO. The  ${}^2\text{A}_1$  state is dissociative, forming  $\text{O}_2$  and Cl, presumably via the photoisomerized intermediate ClOO." should be replaced with, "Coupling to the low-lying  ${}^2\text{A}_1$  excited state gives rise to dissociation into O and vibrationally hot ClO. The  ${}^2\text{B}_2$  state is dissociative, forming  $\text{O}_2$  and Cl, presumably via the photoisomerized intermediate ClOO." In addition, Figure 4 should be amended to reflect these assignments.

These corrections do not change any of the conclusions of the paper. We apologize for any confusion this may have caused.

## Book Reviews\*

**Cage Hydrocarbons.** Edited by George A. Olah (University of Southern California). John Wiley & Sons: New York. 1990. xv + 432 pp. \$69.95. ISBN 0-471-62292-3.

This collection of 10 chapters by 16 contributing authors on various aspects of cage hydrocarbon chemistry is dedicated to Paul von Ragué Schleyer (University of Erlangen) to commemorate his 60th birthday and the 30th anniversary of his discovery of a simple preparation of the tricyclic cage molecule adamantane. The book starts with an introduction by E. M. Arnett (Duke University), a long-time friend and collaborator of Paul Schleyer.

The first chapter by honoree Paul Schleyer describes his 30 years of research in cage hydrocarbons starting from his discovery of a simple preparation of adamantane (which incidentally launched his illustrious career at Princeton) by acid catalyzed rearrangement of tetrahydrocyclopentadiene to the isomerization of pagodane to dodecahedrane. The chapter is well composed with historical anecdotes. Not only adamantane but also the chemistry of diamantane (Congressane), triamantane, and isomeric tetramantanes are discussed, including the conception of a trivial name "bastardane" for one of the tetramantane isomers. Adamantane rearrangement mechanisms along with the author's collaborative involvement in the isomerization of pagodane to dodecahedrane (albeit in low yield) are also covered. Finally, the author discusses his theoretical

prediction and the experimental realization of 1,3-dehydro-5,7-adamantdiyl dication, a unique  $T_d$  symmetry, 4c–2e bonded, three-dimensional dication. There are 74 references.

The second chapter by M. A. McKervey (University College, Cork, Ireland) and J. J. Rooney (The Queen's University, Belfast, Northern Ireland) covers catalytic routes to the synthesis of adamantane and its homologues. As a scientific competitor to Schleyer, McKervey developed several practical synthetic methods for the preparation of diamondoid hydrocarbons. The authors cogently cover not only various synthetic aspects but also the selective functionalization chemistry of the diamondoid hydrocarbons. There are 58 references.

The third chapter by T. S. Sorensen and S. M. Whitworth (University of Calgary) elaborates on the superacid route to bridgehead 1-adamantyl cation. The conversion of tetrahydrocyclopentadiene to adamantane involves an innumerable number of isomeric structures (so called adamantane-land structures), and the authors have systematically probed the possible structure and energetics of the intermediate isomeric carbocations under superacid conditions. There are 68 references.

G. A. Olah in Chapter four discusses carbocations of cage hydrocarbons under long-lived superacid conditions as well as their isomerizations and electrophilic reactions with strong electrophiles. The discussion includes extensive NMR spectroscopic characterization of 1-adamantyl, 1- and 4-diamantyl, isomeric triamantyl, dodecahedryl, and *sec*-pagodyl cations. Even dications of diamantane, pagodane, and

\*Unsigned reviews are by the Computer Software Review Editor.