

Additions and Corrections

Mechanism of the Nitrosation of Thiols and Amines by Oxygenated •NO Solutions: The Nature of the Nitrosating Intermediates [*J. Am. Chem. Soc.* **1996**, 118, 3419–3425]. SARA GOLDSTEIN* AND GIDON CZAPSKI

Page 3422: Equations 9a and 9b should be

$$d[\text{RSNO}]/dt = 2k_1[\bullet\text{NO}]^2[\text{O}_2] = 2k_1[\bullet\text{NO}]^2 0.5([\text{RSNO}]_\infty - [\text{RSNO}]) = k_1[\bullet\text{NO}]^2([\text{RSNO}]_\infty - [\text{RSNO}]) \quad (9a)$$

$$d[\text{RSNO}]/dt = 2k_1[\bullet\text{NO}]^2[\text{O}_2] = 2k_1[\text{O}_2]\{2([\text{RSNO}]_\infty - [\text{RSNO}])\}^2 = 8k_1[\text{O}_2]([\text{RSNO}]_\infty - [\text{RSNO}])^2 \quad (9b)$$

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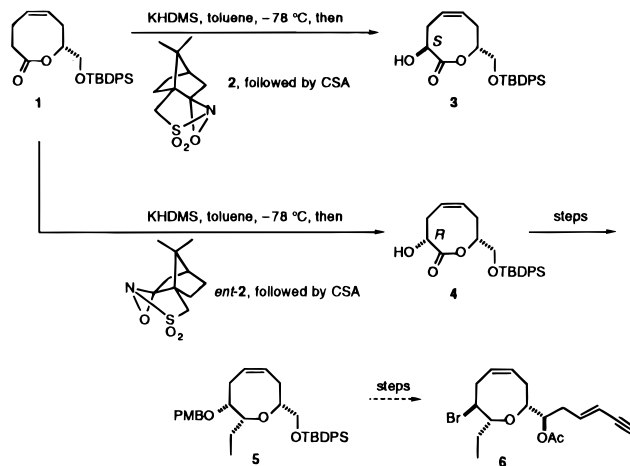
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Synthesis of (+)-Laurencin—A Retraction [*J. Am. Chem. Soc.* **1993**, 115, 10400–10401]. JONATHAN W. BURTON, J. STEPHEN CLARK, JUSTIN BENDALL, SAM DERRER, THOMAS STORK, AND ANDREW B. HOLMES*

We have recently become aware of certain inconsistencies in the supplementary material relating to our published synthesis of (+)-laurencin **6**.¹ Hydroxylation of the potassium enolate derived from lactone **1** with (2*R*,8*aS*)-camphorsulfonyloxaziridine (**2**)² yielded an alcohol which was originally assigned as (3*R*).¹ Repetition of the reaction gave the same product (20%), but after 500-MHz ¹H NMR analysis we have reassigned the structure as (3*S*)-**3**, which could not produce (+)-laurencin by the originally reported sequence. Oxidation of the enolate derived from **1** with *ent*-**2** afforded the required (3*R*)-alcohol **4** (7.5%) and **3** (1.5%). The synthesis as originally described¹ has now been repeated using the correct (3*R*)-alcohol **4**³ to produce the oxocane **5**. This material is essentially identical (save for the oxygen protecting groups) to an advanced intermediate used by Murai in the first synthesis of (+)-laurencin **6**,⁴ and we consider that we have now effected a formal

synthesis.⁵ After we have achieved the conversion of the oxocane **5** into laurencin **6** we shall report our synthesis in full. At this stage we retract our original published synthesis¹ of laurencin.⁶

Scheme 1



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- (1) Robinson, R. A.; Clark, J. S.; Holmes, A. B. *J. Am. Chem. Soc.* **1993**, 115, 10400–10401.
- (2) Davis, F. A.; Chen, B.-C. *Chem. Rev.* **1992**, 92, 919–934.
- (3) (3*R*)-Alcohol **4** has been independently synthesized in good yield by lactonization of a *seco*-acid derived from the Wittig coupling of fragments originating from (*R*)-malic acid.
- (4) Tsushima, K.; Murai, A. *Tetrahedron Lett.* **1992**, 33, 4345–4348.
- (5) The work of Bratz et al. Bratz, M.; Bullock, W. H.; Overman, L. E.; Takemoto, T. *J. Am. Chem. Soc.* **1995**, 117, 5958–5966 becomes the second synthesis of (+)-laurencin.
- (6) The synthesis of lactone **1** as reported by J. S. Clark, Ph.D. Thesis, Cambridge University, 1988, is correct. The synthesis of (+)-laurencin in ref 1 is difficult to account for and must probably be charged to the fallibility of the other junior author and the gullibility of the senior author (*Cf.* Gutsche, C. D.; Baum, J. W. *Tetrahedron Lett.* **1965**, 2301–2304).

Book Reviews

Progress in Inorganic Chemistry. Volume 43. Edited by Kenneth D. Karlin (Johns Hopkins University). Wiley: New York. 1995. vi + 621 pp. \$125.00. ISBN 0-471-12336-6.

This is the third volume of *Progress in Inorganic Chemistry* under Ken Karlin's editorship. The emphasis remains the publication of substantial reviews on bioinorganic, coordination, and solid state chemistry. In this volume, an important review by Kitajima and Tolman covers the chemistry of sterically hindered tris(pyrazolyl) borates. These important ligands have been very influential in inorganic chemistry in allowing access to unusual structures and coordination numbers, notably Kitajima's own dicopper complex with a side-on doubly bridging peroxide. Calixarenes, discussed in Roundhill's review, are a much newer class of ligand and one in which chemical modification can easily introduce side chains for conferring desired reactivity or solubility properties. Kanatzidis and Sutorik look at the use of molten polychalcogenide salts as a reactive low-temperature solvent medium for the synthesis of some fascinating chalcogenide materials. The low temperature is significant in allowing some measure of kinetic control on the outcome. The products are often well described as infinite polymers of identifiable covalently linked molecular fragments. The review illustrates the increasing overlap between molecular and solid

state chemistry. A useful review of Bakac covers the mechanistic aspects of the reaction of dioxygen with transition metal complexes. Oxovanadium and oxomolybdenum clusters are the subject of Ishaque Khan and Zubieta's contribution, which includes some related solid state chemistry. Arnold's survey of selenolate and telluroate ligands makes it clear that this once exotic field is now rapidly developing, encouraged by the recent discovery of selenolate ligands in the active sites of a number of enzymes. There is a good subject index and a very helpful cumulative index for the series as a whole.

Occasional thematic issues are contemplated for future volumes; for example, one on Molecular Level Artificial Photosynthetic Materials is in preparation.

This volume is an outstanding addition to this series, which is an indispensable lifeline for those of us trying to keep up-to-date with inorganic chemistry across a broad front.

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