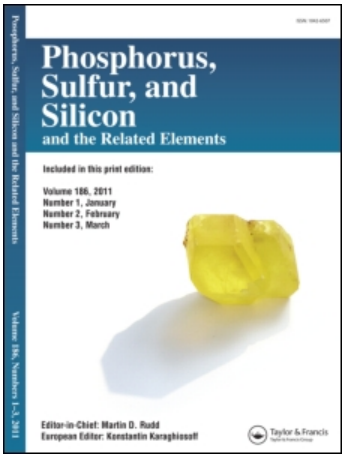

Phosphorus, Sulfur, and Silicon and the Related Elements
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713618290

A Review of: "Sulfilimines and Related Derivatives, by Shigeru Oae and Naomich Furukawa. ACS Monograph Series 179, ACS. Washington, D.C. 1983, 340 pp. $84.95."

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To cite this Article Block, Eric(1985) 'A Review of: "Sulfilimines and Related Derivatives, by Shigeru Oae and Naomich Furukawa. ACS Monograph Series 179, ACS. Washington, D.C. 1983, 340 pp. $84.95."', Phosphorus, Sulfur, and Silicon and the Related Elements, 24: 3, 347
To link to this Article: DOI: 10.1080/03086648508074248
URL: http://dx.doi.org/10.1080/03086648508074248

BOOK REVIEW

Sulfilimines and Related Derivatives by Shigeru Oae and Naomichi Furukawa. ACS Monograph Series 179, ACS. Washington, D.C. 1983, 340 pp. $84.95.

Sulfilimines, $R_2S{=}NR'$, which are isoelectronic with sulfoxides, appear frequently on the pages of *Phosphorus and Sulfur* as valuable substrates for mechanistic, synthetic, spectroscopic, and stereochemical studies. Until now readers wanting to learn more about these compounds had to search the primary literature. Professors Oae and Furukawa have performed a considerable service to the chemical community by writing this thoroughly researched and carefully written monograph on sulfilimines as well as other nitrogen–sulfur compounds including sulfoximines and sulfondiimines, the nitrogen counterparts of sulfones. The authors' expertise as pioneers in the field of sulfilimine chemistry is perhaps best indicated by the fact that of the 1000 references cited in the ten chapters in this book, 170 are by Oae and/or Furukawa. Heightening the value of the book is the inclusion of over 100 tables of data on these compounds, a variety of figures including circular dichroism, IR and UV spectral curves and x-ray crystallographic structural drawings, Hammett plots, experimental procedures, as well as considerable unpublished work by the authors and a complete subject index.

The topics covered in this volume include a historical review (sulfilimines were first prepared in the 1920's), physicochemical properties of sulfilimines, chemical reactions (thermolysis, photolysis, hydrolysis, reaction with nucleophiles, rearrangements, additions, oxidations and reductions), *N*-substituted and *N*-unsubstituted sulfilimines, optically active sulfilimines, *N*-halosulfilimines, and conversion to sulfoximines, sulfondiimines and related compounds. As might be expected from the research interests of the authors, emphasis is heaviest on reaction mechanisms. There is a brief (3 pages) chapter on industrial uses of sulfilimines which include antimicrobial agents, fungicides, herbicides, hypotensive and antitumor agents, antioxidants, and polymerization catalysts. As the authors aptly note, the utilization of sulfilimines has not been explored fully yet.

The book is nicely produced with excellent drawings and is relatively error free. It is a pleasure to recommend this volume to those academic and industrial chemists engaged in research involving organosulfur compounds as well as those students seeking to learn more about this interesting class of compounds.

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