

This article was downloaded by:

On: 28 January 2011

Access details: Access Details: Free Access

Publisher Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## 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>

### Antibacterial and Antifungal Activity of Sulfur-Containing Compounds from *Petiveria Alliacea* L.

Rabi A. Musah<sup>a</sup>; Seokwon Kim<sup>a</sup>; Roman Kubec<sup>a</sup>

<sup>a</sup> Department of Chemistry, State University of New York, Albany, USA

**To cite this Article** Musah, Rabi A. , Kim, Seokwon and Kubec, Roman(2005) 'Antibacterial and Antifungal Activity of Sulfur-Containing Compounds from *Petiveria Alliacea* L.', Phosphorus, Sulfur, and Silicon and the Related Elements, 180: 5, 1455 — 1456

**To link to this Article:** DOI: 10.1080/10426500590913050

**URL:** <http://dx.doi.org/10.1080/10426500590913050>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

## Antibacterial and Antifungal Activity of Sulfur-Containing Compounds from *Petiveria Alliacea* L.

Rabi A. Musah

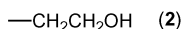
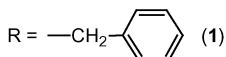
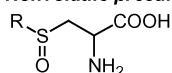
Seokwon Kim

Roman Kubec

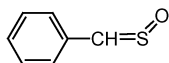
Department of Chemistry, State University of New York at Albany,  
 Albany, USA

Eighteen organosulfur compounds originating from *Petiveria alliacea* L. roots have been tested for their antibacterial and antifungal activities.

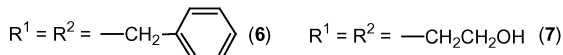
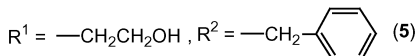
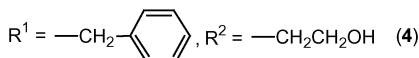
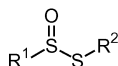
### Nonvolatile precursors:



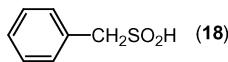
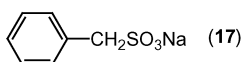
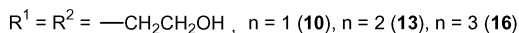
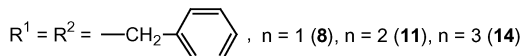
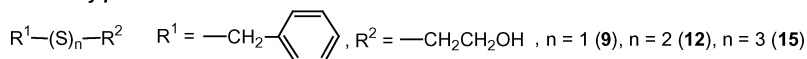
### Primary products:



(3)



### Secondary products:



Received July 9, 2004; accepted October 5, 2004.

Address correspondence to Rabi A. Musah, Department of Chemistry, State University of New York at Albany, 1400 Washington Avenue, Albany, NY, 12222 USA. E-mail: musah@albany.edu

These represent compounds occurring in fresh homogenates as well as those present in various macerates, extracts, and other preparations made from *P. alliacea*. Of the compounds assayed, the thiosulfinates, trisulfides, and benzylsulfinic acid were observed to be the most active, with the benzyl-containing thiosulfinates exhibiting the broadest spectrum of antimicrobial activity. The effect of plant sample preparation conditions on the antimicrobial activity of the extract is discussed.