

This article was downloaded by:

On: 30 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>

## New Stable Diphosphenes

J. Escudie<sup>a</sup>; C. Couret<sup>a</sup>; H. Ranaivonjatovo<sup>a</sup>; M. Lazraq<sup>a</sup>; J. Satge<sup>a</sup>

<sup>a</sup> Laboratoire de Chimie des Organominéraux, U.A. 477 du CNRS Université Paul Sabatier, Toulouse cedex, France

**To cite this Article** Escudie, J. , Couret, C. , Ranaivonjatovo, H. , Lazraq, M. and Satge, J.(1987) 'New Stable Diphosphenes', Phosphorus, Sulfur, and Silicon and the Related Elements, 30: 3, 769

**To link to this Article:** DOI: 10.1080/03086648708079261

**URL:** <http://dx.doi.org/10.1080/03086648708079261>

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.

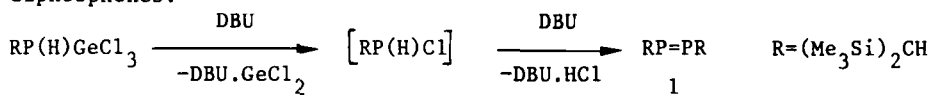
## New Stable Diphosphenes

J. ESCUDIE\*, C. COURET, H. RANAIVONJATOVO, M. LAZRAQ and J. SATGE

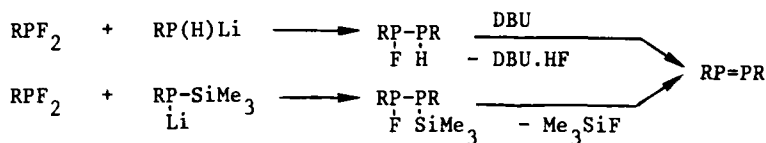
Laboratoire de Chimie des Organominéraux, U.A. 477 du CNRS

Université Paul Sabatier, 118 route de Narbonne, 31062 Toulouse cedex (France)

Since the isolation of the first stable diphosphene by YOSHIFUJI, some other diphosphenes have been prepared and stabilized by very bulky substituents. We have recently described the synthesis, via a germylated way, of the bis[bis(trimethylsilyl)methyl]diphosphene 1, one of the least crowded stable diphosphenes:

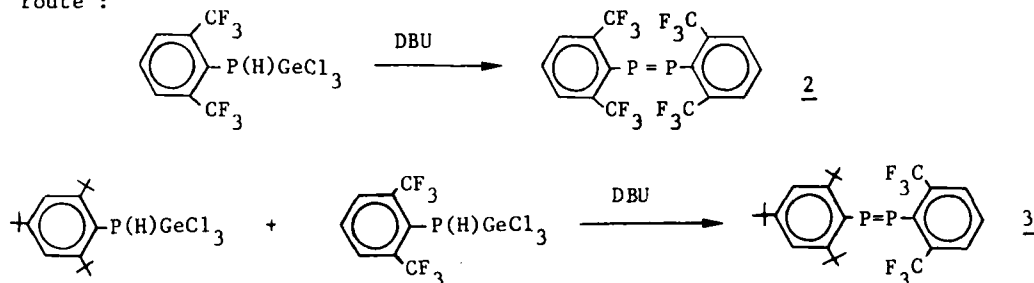


We present here two new routes to 1 involving fluorinated phosphines :



Reactivity of 1 towards protic reagents, dienes, selenium,... will be presented.

We have also synthesized the new diphosphenes 2 and 3 via the germylated route :



The hexafluoro-m-xylyl substituent has been used for the first time in phosphorus chemistry ; its influence on the changes in electronic structure and reactivity of these diphosphenes has been clearly evidenced.