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

A NOVEL METHOD FOR THE PREPARATION OF SUBSTITUTED 5-AMINO-1,2,3, 4-THIATRIAZOLES BY AZA-TRANSFER REACTION

B. Stanovnik^a; M. Tišler^a; B. Valenčič^a

^a Department of Chemistry, University of Ljubljana, Ljubljana, Yugoslavia

To cite this Article Stanovnik, B., Tišler, M. and Valenčič, B.(1979) 'A NOVEL METHOD FOR THE PREPARATION OF SUBSTITUTED 5-AMINO-1,2,3, 4-THIATRIAZOLES BY AZA-TRANSFER REACTION', Phosphorus, Sulfur, and Silicon and the Related Elements, 6: 1, 291

To link to this Article: DOI: 10.1080/03086647908080419
URL: http://dx.doi.org/10.1080/03086647908080419

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.

A NOVEL METHOD FOR THE PREPARATION OF SUBSTITUTED 5-AMINO-1,2,3, 4-THIATRIAZOLES BY AZA-TRANSFER REACTION

B. Stanovnik, M. Tišler, B. Valenčič

Department of Chemistry, University of Ljubljana, Ljubljana

Yugoslavia

Recently, the aza-transfer reactions between amino or hydrazino compounds and aryldiazonium salts or heterocyclic diazo compounds have been studied. In general, a mixture of different products is formed.

In this communication we shall report on the reaction between thiosemicarbazide or 4-substituted thiosemicarbazides and aryldiazonium salts. We found that in this reaction, although either substituted 5-amino-1,2,3,4-thiatriazoles or substituted tetrazoline-5(4H)-thiones could be formed among other possibillities, only 5-substituted-1,2,3,4-thiatriazoles were isolated.

R-NHCSNHNH₂

$$Ar-N_2^{\oplus}BF_4^{\ominus}$$
R-NHCSNH₂

$$\begin{bmatrix} R-NHCSN_3 \end{bmatrix}$$

$$R-NHCSN_3$$

$$R-NHCSN_3$$

This reaction represents a novel efficient method for the preparation of substituted 5-amino-1,2,3,4-thiatriazoles and another example of the application of the "solid nitrous acid" as the reagent for the aza-transfer reactions in sulphur containing compounds.