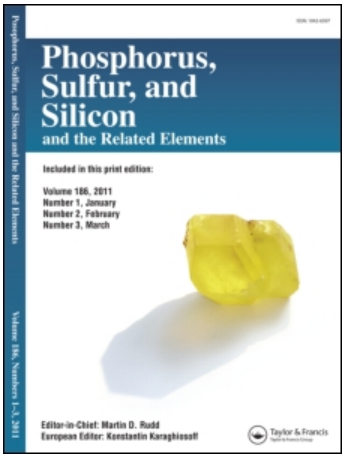


## Phosphorus, Sulfur, and Silicon and the Related Elements

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http://www.informaworld.com/smpp/title~content=t713618290

# Arylsulphonamides of Amidothiophosphonic Acids

Ioan Fenesan[a]; Andrei Hantz[a]; Monica Culea[a]; Simona Nicoarä[a]; Mircea Bogdan[a]
[a] Institute of Chemistry "Raluca Ripan", Romnia

**To cite this Article** Fenesan, Ioan , Hantz, Andrei , Culea, Monica , Nicoarä, Simona and Bogdan, Mircea(1996) 'Arylsulphonamides of Amidothiophosphonic Acids', Phosphorus, Sulfur, and Silicon and the Related Elements, 111: 1, 192

**To link to this Article: DOI:** 10.1080/10426509608054821

**URL:** http://dx.doi.org/10.1080/10426509608054821

*Phosphorus, Sulfur, and Silicon*, 1996, Vol. 111, p. 192
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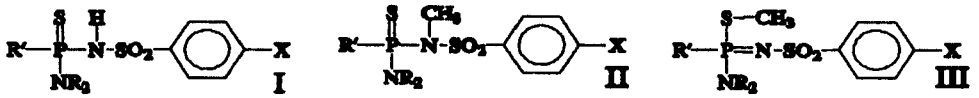
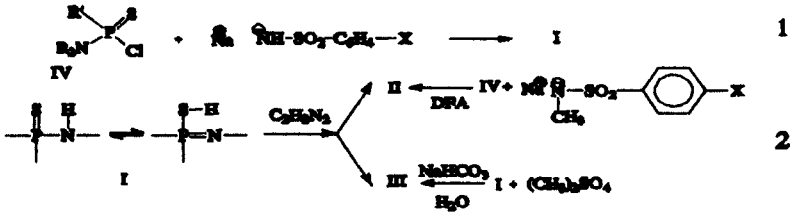
# ARYLSULPHONAMIDES OF AMIDOTHIOPHOSPHONIC ACIDS

IOAN FENEŞAN*, ANDREI HANTZ*, MONICA CULEA, SIMONA NICOARA and MIRCEA BOGDAN
* Institute of Chemistry "Raluca Ripan" Cluj-Napoca România

Chemical structure-antimicrobian activity correlation in a thyophosphoric arysulphonamide class were estabilished[1]. The aim of this paper is to present new compounds of same type: p-substituted arylsulphonylamides of amidothiophosphonic acids, I; N-methyl and S-methyl derivatives of them, II and respectively III, synthesyzed by schemes 1 and 2(R´=cC$_6$H$_{11}$, C$_6$H$_5$; NR$_2$=N(CH$_3$)$_2$, N(C$_2$H$_5$)$_2$, N(C$_2$H$_4$)$_2$O; X=F, Cl, Br, H, CH$_3$, OCH$_3$).



For structure I there are thionamido-thiolimido tautomeric equilibrum wich lies far on the site of the thiono form. The two nucleophilic centers from correspondent ambident anion selectively reacts with electrophyles as the methyl iodide or dimethylsulphate.



The physico-chemical characteristics of the new isolated compounds was estabilished by means of IR, $^1$H-NMR, $^{31}$P-NMR and MS. The fragmentation pathways for the three series of compounds were estabilished[2,3]. The compounds I-III were tested to evaluate their inhibitory effects on carbonic anhidrase and some bacterial strains.

## REFERENCES

1. V. CHIOREAN, I. FENEŞAN, A. HANTZ, AL. ALEXANDRI, R. POP, *Farmacia* 31, (3) 143 (1984)
2. S. NICOARĂ, M. CULEA, N. PALIBRODA, O. COZAR, I. FENEŞAN, A. HANTZ, *Rapid Commun. Mass Spectrom.* **9**, 61 (1995)
3. Z. MOLDOVAN, S. NICORĂ, M. CULEA, O. COZAR, I. FENEŞAN, P. VEGH, J.J. RIOS *J. Mol. Struct.* **348**, 393 (1995)