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# New heterocyclic structures. thiazolo[3,2-a][1,2,5] thiadiazolo[3,4-d]pyrimidine and [1,2,5]thiadiazolo[3',4':4,5] pyrimido[2,1-b] [1,3]thiazine. biological assays

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Affiliations + expand

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## Abstract

6,7-Dihydro-9H-thiazolo[3,2-a][1,2,5]thiadiazolo [3,4-d]pyrimidin-9-one, 7,8-dihydro-6H,10H-[1,2,5]thiadiazolo[3',4':4,5]pyrimido [2,1-b][1,3]thiazin-10-one and its 3-methyl derivative were prepared by reacting 6,7-diamino-2,3-dihydro-5H-thiazolo[3,2-a]pyrimidin-5-one, 7,8-diamino-3,4-dihydro-2H,6H-pyrimido[2,1-b][1,3]thiazin-6-one or its 3-methyl derivative with N-thionylaniline. A reaction mechanism is proposed. The compounds and the sodium salts of (7-amino-2,3-dihydro-5H-thiazolo[3,2-a]pyrimidin-5-on-6-yl)sulfamic acid, (8-amino-3,4-dihydro-2H,6H-pyrimido[2,1-b][1,3]thiazin-6-on-7-yl) sulfamic acid and its 3-methyl derivative were tested for antimicrobial and antimycotic activity on a number of strains, namely: E. Coli, Proteus mirabilis, P. vulgaris, Pseudomonas aeruginosa, Salmonella spp, Staphylococcus spp, Streptococcus faecalis, Bacillus subtilis, Sarcina lutea, Candida albicans, and for antiviral activity on Herpes simplex virus type 1 and Vescicular stomatitis virus. None of the compounds showed antiviral activity or exhibited biological activity against gram-negative, gram-positive bacteria or against mycetes.