

Synthesis and some transformations based on 2- (R-2,6-dioxo-2,3,6,7-tetrahydro-1H-purin-8-iltio)acetic acids

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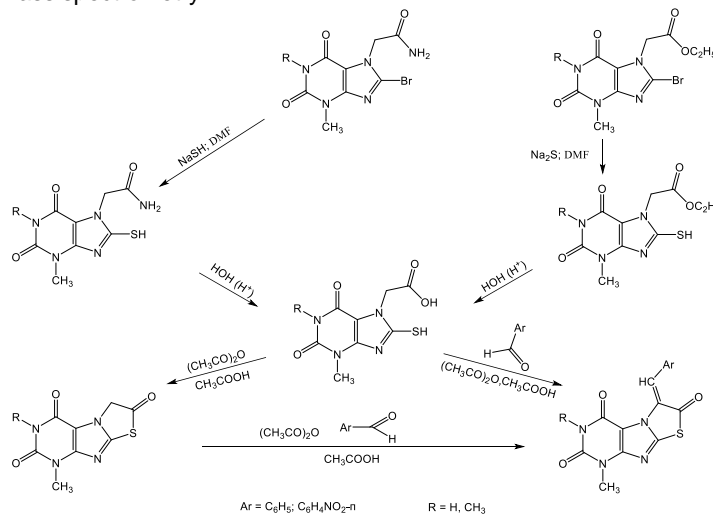
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High and versatile biological activity of purine and its 2,6-dioxo derivatives attract the close attention of chemists and biologists. Interest in the purine chemistry is due to the fact that it acts as a structural fragment of a number of natural bioregulators and synthetic drugs. Purine and its derivatives are part of nucleic acids, various coenzymes, act as macroerges, participate in the transmission of nerve impulses.

Among the N- and C-substituted purine and xanthine, substances possessing different types of biological action were found. Substances with antimicrobial, hypotensive, diuretic, antihistaminic, cardiotoxic, bronchodilator, analeptic, antitumor activity were found, which indicates the expediency of searching for biologically active compounds in the purine and its derivatives.^{1,2}

Continuing research in this area, we have carried out certain transformations on the basis of 3-methyl-8-mercaptopyxynil-7-acetic acid. (**Scheme 1**).

The structure of the obtained compounds was established using modern physicochemical methods of analysis-IR, NMR spectroscopy and mass spectrometry.



Scheme 1.

References:

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2. Correia C. Synthesis and in vitro activity of 6-amino-2,9-diarylpurines for Mycobacterium tuberculosis / C. Correia, M. A. Carvalho, M. F. Proença // Tetrahedron – 2009. – Vol. 65. – P. 6903-6911.

