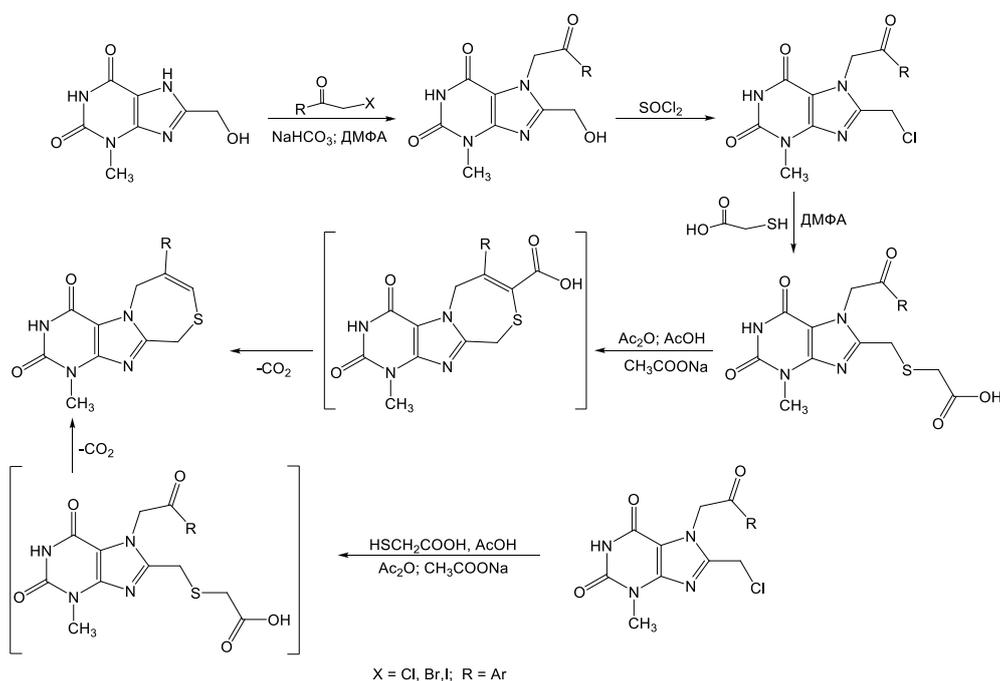


SYNTHESIS OF DERIVATIVES OF 1-METHYL-7-R-6,10-DIHYDRO- [1,4]THIAZEPIN-[4,3-f] PURIN-2,4-(1H, 3H)-DIONE

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Interest in the chemistry of purine, 2,6-dioxapurine and their condensed derivatives is explained by the fact that a large number of compounds in this series have a fairly wide range of biological activity. Some attention of chemists and biologists to purine derivatives is due to the fact that purine and its 2,6-dioxo derivative (xanthine) are structural fragments of a number of natural physiologically active compounds and synthetic drugs. In order to search for biologically active compounds, on the basis of 8-(hydroxymethyl)-3-methyl-7-(2-oxo-2-R-ethyl)-1H-purine-2,6(3H, 7H)-dione, a series of transformations which gave 8-(chloromethyl)-3-methyl-7-(2-oxo-2-R-ethyl)-1H-purine-2,6(3H, 7H)-dione. Cyclization of the latter leads to the preparation of 1-methyl-7-R-6,10-dihydro-[1,4]-thiazepin-[4,3-f] purin-2,4(1H, 3H)-dione.



The structure of the obtained compounds was established using modern physicochemical methods of analysis-IR, NMR spectroscopy and mass spectrometry. Substances with diuretic and hypotensive activity were found.

