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## Pyrimidinic Cyclic Thiophosphorylic Esthers with Biological Activity

O. Musat<sup>a</sup>; I. Penesan<sup>a</sup>; M. Horn<sup>a</sup>; S. Musat<sup>b</sup>; M. Culea<sup>b</sup>; A. Hantz<sup>a</sup>

<sup>a</sup> Institute of Chemistry, Entreprise of Chemical Drugs "Terapia", Romania <sup>b</sup> Institute of Isotopic and Molecular Technology, Cluj-Napoca, Romania

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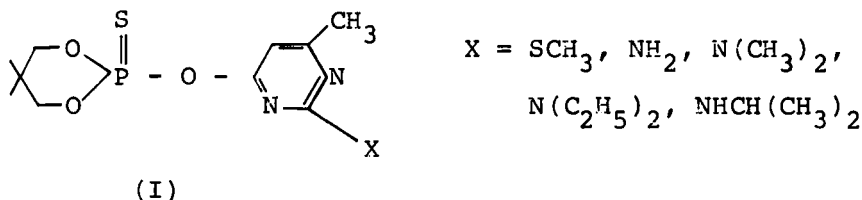
## PYRIMIDINIC CYCLIC THIOPHOSPHORYLIC ESTERS WITH BIOLOGICAL ACTIVITY

O.MUSAT, I.PENESAN, M.HORN, S.MUSAT\*, M.CULEA\*, and A.HANTZ

Institute of Chemistry, Enterprise of Chemical Drugs "Terapia", Romania

\*Institute of Isotopic and Molecular Technology, 3400 Cluj-Napoca, Romania

Pyrimidinic derivatives of dioxaphosphorinan-2-thione (I) have been synthesized by substituting the chlorine atom in 2-chloro-2-thiono-5,5'-dimethyl-1,2,2-dioxaphosphorinane by 2'-substituted-6'-methyl-4'-hydroxypyrimidine



Crystal structure by X-ray diffractometry and physico-chemical characteristics were established.

IR spectra show bands characteristic to the basic functional groups of the molecule. <sup>31</sup>P NMR spectra show high shielding of the thionic phosphorus atom. <sup>1</sup>H NMR spectra reveal the P-H coupling phenomenon with the 5'-CH and 4,6-CH<sub>2</sub> protons. The difference between the values of the chemical shifts of axial and equatorial 5-CH<sub>3</sub> protons can be explained with the existence of a conformational equilibrium.

The mass spectra reveal the molecular ion being basic. The fission of P-O bond(pyrimidinyl) and elimination of X radical was demonstrated.

The fungicide effect of the compounds X was established by the biological tests.