











O.A.Nurkenov, A.M.Gazaliev, T.M.Seilkhanov, S.D.Fazylov,  
A.T.Takibayeva, S.K.Kabieva, Zh.B.Satpaeva, I.V.Kulakov

### Synthesis, structure and antitumor activity of 2-(1-vinyl-3-methyl-1,2-butadienyl)-3,4-dimethyl-5-phenyl-2-oxo-1,3,2-oxazaphospholane

Synthesis of 2-(1-vinyl-3-methyl-1,2-butadienyl)-3,4-dimethyl-5-phenyl-2-oxo-1,3,2-oxazaphospholane was actualized due to reaction of 2-chlorine-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholane with the dimethyl-vinylethynylcarbinol. It is shown that the process proceeds via the formation of vinylacetylenephosphite which was allowed to form the desired product due to acetylene-allene rearrangement. One-dimensional ( $^1\text{H}$ ) and two-dimensional (COSY, HMQC) NMR spectra of the final product were interpreted in detail. As a result of pharmacological researches on antitumoral activity it is shown that vinylalleneoxazaphospholane suppresses tumoral strains of an alveolar mucous cancer of liver (RS-1) for 96.0 %, sarcomas 45 for 94.0 %, adenocarcinomas of a mammary gland of Ca-755 for 91.0 % and Pliss's limfosarkoma for 73.0 %.

#### References

- 1 Belakhov V.V., Yudelevich V.I., Ionin B.I., Komarov E.V., Petrov A.A. *Journal General Chem.*, 1968, 58, 6, p. 1193–1206.
- 2 Kondratyev Yu.A., Tarasov V.V., Vasiliev A.S., Shakina N.M., Ivin S.Z. *Journal General Chem.*, 1968, 38, 7, p. 1791–1794.
- 3 Ignatiev V.M., Ionin B.I., Petrov A.A. *Journal General Chem.*, 1966, 36, 8, p. 1575–1596.
- 4 Ionin B.I., Bogolyubov G.M., Petrov A.A. *Russian Chem. Reviews.*, 1967, 36, p. 587–610.
- 5 Nifantiev E.E., Kukhareva T.S., Soldatova I.A., Belostotskaya I.S., Eshkov V.V., Vasilenina L.K. *Journal General Chem.*, 1988, 58, 10, p. 2242–2246.
- 6 Macomber R.S. *J.Am. Chem. Soc.*, 1977, 99, p. 3072–3075.
- 7 Walker R.T., Hunston R.N., Me Crugar C., Jones A.S. *Symp. Chem. Soc. Pericycl. Compounds 8-th and acid components (6-th)*, London, 1984, p. 23–28.

РЕПОЗИТОРИЙ КАРГУ