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Phosphorylation of Conjugated Enamines

Aleksandr N. Kostyuk^a; Nikolai V. Lysenko^a; Sergei I. Dovgopoly^a; Andrei A. Tolmachev^a
^a Institute of Organic Chemistry, National Academy of Sciences of Ukraine, Kiev, UKRAINE

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Phosphorylation of Conjugated Enamines

ALEKSANDR N. KOSTYUK, NIKOLAI V. LYSENKO, SERGEI I. DOVGOPOLY and ANDREI A. TOLMACHEV

Institute of Organic Chemistry, National Academy of Sciences of Ukraine Murmanskay str.5, 253660, Kiev 94, UKRAINE

Introduction of benzylidene group at α-position of enamines derived from cyclic ketones substantially increases strength of C-P bond thus permitting further syntheses without splitting of the C-P bond. A wide set of phosphorylated derivatives of type (I) were prepared and their properties were studied. Combination of an enamine moiety with other nucleophilic centers such as C or N in a molecule allows to carry out cyclisation giving five- and six-membered phosphorus-containing heterocycles of types (II, III).

$$\begin{bmatrix} O \\ N \\ Ph \end{bmatrix} PHlg_{3-n}$$

$$\begin{bmatrix} N \\ N \\ R \end{bmatrix} X \\ R_{2}$$

$$\begin{bmatrix} N \\ N \\ N \end{bmatrix}$$

$$\begin{bmatrix} N \\ N \\ N \end{bmatrix} P = X \\ N \end{bmatrix}$$

$$\begin{bmatrix} N \\ N \\$$