SYNTHESIS OF NEW PHOSPHORUS CONTAINING DERIVATIVES OF N-HYDROXYUREA

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The different kinds of the substituted ureas use as pharmaceutical materials. The chemical properties of *N*-alkoxy-*N*-chloroureas allow to create the new reaction strategies that give access to such new biological relevant scaffolds. But the nucleophilic substitution of the chlorine atom in *N*-alkoxy-*N*-chloroureas by P- nucleophile remains unstudied.

We have found that *N*-alkoxy-*N*-chloroureas 1 a, b interact with triphenylphosphine selectively yielding triphenylphosphonic salts 2 a, b. *N*-Chloro-*N*-methoxyurea 1a reacts with trimethylphosphite yielding compound 3.

$$\begin{array}{c|c}
Cl & (MeO)_3P \\
\hline
H_2N & N \\
O & Et_2O
\end{array}$$

$$\begin{array}{c}
MeO & O \\
P & OMe \\
O & OMe
\end{array}$$

$$\begin{array}{c}
O & O \\
O & O \\
O & O \\
O & O \\
O & O
\end{array}$$

The compounds 2, 3 are the unknown kinds of phosphorus containing derivatives of *N*-hydroxyurea and perspective biological relevant scaffolds.