N-ALKOXY-*N*-CHLOROUREAS IN THE SYNTHESIS OF NEW PHOSPHORUS DERIVATIVES OF *N*-HYDROXYUREA

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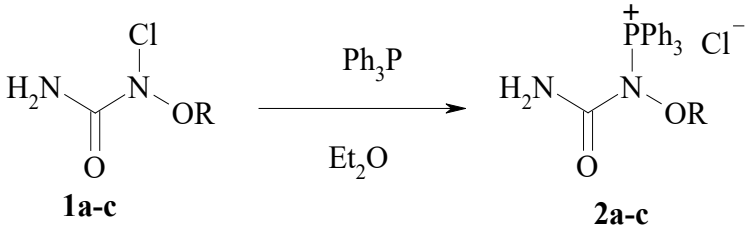
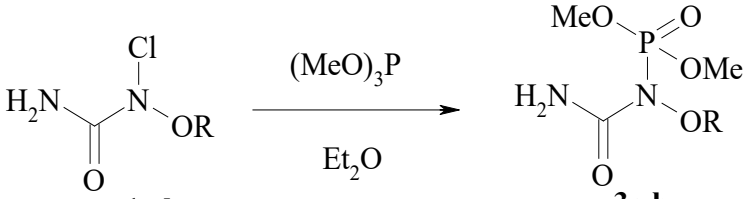
The different kinds of the substituted ureas use as pharmaceutical materials. The chemical properties of *N*-alkoxy-*N*-chloroureas allow to create the new reaction strategies that give access to such new biological relevant scaffolds. But the nucleophilic substitution of the chlorine atom in *N*-alkoxy-*N*-chloroureas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

We have found that *N*-alkoxy-*N*-chloroureas **1a-c** interact with triphenylphosphine selectively forming triphenylphosphonic chlorides **2a-c**. *N*-Alkoxy-*N*-chloroureas **1a,b** react with trimethylphosphite yielding the phosphorus containing ureas **3a,b**.



1a-c **2a-c**

R=Me(a), Et(b), n-Bu (c)



1a,b **3a,b**

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