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Peter P. Onys'ko^a

^a Institute of Organic Chemistry, National Academy of Sciences, Kiev, Ukraine

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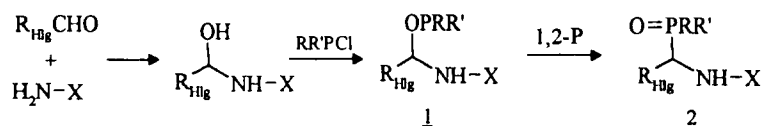
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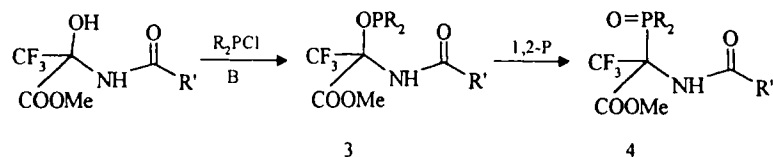
PETER P. ONYS'KO

*Institute of Organic Chemistry, National Academy of Sciences, Kiev, 252660,
 5 Murmans'ka St, Ukraine*

A new preparative method for synthetically and biologically important N-acyl-, N-phosphoryl-, and N-sulfonylaminoalkylphosphonyl derivatives **2** is presented.



A key step of the approach is the formation of the P-C bond *via* phosphorotropic rearrangement **1** \rightarrow **2**. The scope of the method and the factors determining the easiness of the isomerization are considered. Electron-accepting substituents at carbon and nitrogen atoms as well as high nucleophilicity of tervalent phosphorus atom in **1** promote the rearrangement. Bulky substituents hamper isomerization **1** \rightarrow **2**. Nevertheless, in the derivatives **3** tervalent phosphorus migrates to quaternary carbon atom to give compounds **4** containing fragments of α -aminocarbon- and aminophosphonic acids in one molecule.



Phosphorylated amides **2** were used in synthesis of important functionally substituted organophosphorus compounds (C-phosphorylated N-acylimines, vinyl amides, α -aminophosphonic acids, heterocycles).