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C-Phosphorylated Derivatives of 2-Thiophenecarboxaldehyde, Furfural and 1-Methyl-2-Pyrrolicarboxaldehyde

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C-Phosphorylated Derivatives of 2-Thiophenecarboxaldehyde, Furfural and 1-Methyl-2-Pyrrolicarboxaldehyde

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C-Phosphorylated carboxaldehydes are not numerous and hardly accessible. Use of N,N-dimethylhydrazono protection allows us to carry out synthesis of mono- and diphosphorylated aldehydes. It should be noted that N,N-dimethylhydrazono group is not only directing one, but also an activating group in phosphorylation.

Presence substituent in the position 5 of the furan ring leads to formation of 1. However, diethylamino group directs phosphorylation at the 4-th position giving 2. At the same time use of bulkier substituent, diphenylchlorophosphine, changes the phosphorylation position affording 3.

