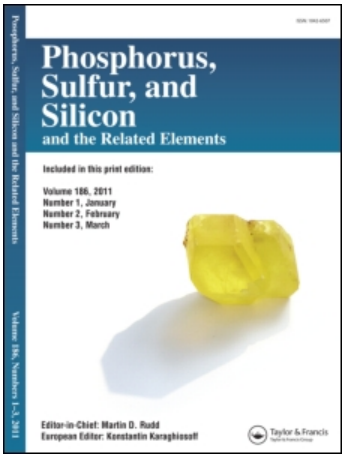

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Nitroethenylphosphonates in Reactions with Indole and its Derivatives

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NITROETHENYLPHOSPHONATES IN REACTIONS WITH INDOLE AND ITS DERIVATIVES

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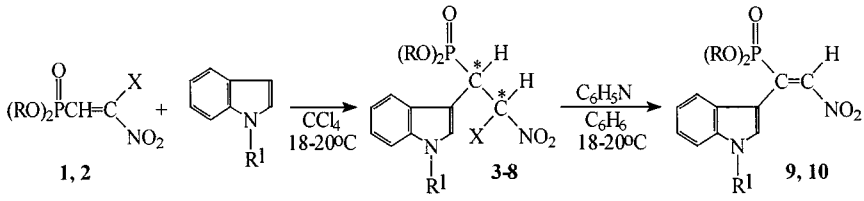
Very high reactivity of nitro- and *gem*-halonitroethenylphosphonates makes them perspective syntones for introducing nitroethyl- and nitroethenylphosphonate blocks into various nucleophilic substrates.[1] The results of investigation of reactions of nitroethenes (**1**, **2**) with indole and its derivatives are now reported. It has been found out that their interaction proceeds under exceptionally mild conditions (in CCl_4, C_6H_6 or C_2H_5OH, at 18–20°C, without any catalist, at 1:1 rating of initial substances) and leads to indolylnitroethylphosphonates with good yields. The data about the influence of the solvents nature on the stereospecificity of the process [for compound (**2**)] are discussed in this work too. The synthesis of indolylnitroethenylphosphonates (**9**, **10**) and phosphorylated tryptamines on the basis of compounds (**3**, **5**) will be also presented.



R = C_2H_4Cl (**1-10**); X = H (**1,3-5**), Br (**2,6-8**); R_1 = H (**3,6,9**), CH_3 (**4,7**), C_2H_5 (**5,8,10**)

SCHEME 1

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REFERENCE

[1] V. M. Berestovitskaya, L. I. Deiko, J. Botata, and G. Berkova, *Russ. J. Gen. Chem.*, **68,** 149 (1998).