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Nitroethenylphosphonates in Reactions with Indole and its Derivatives

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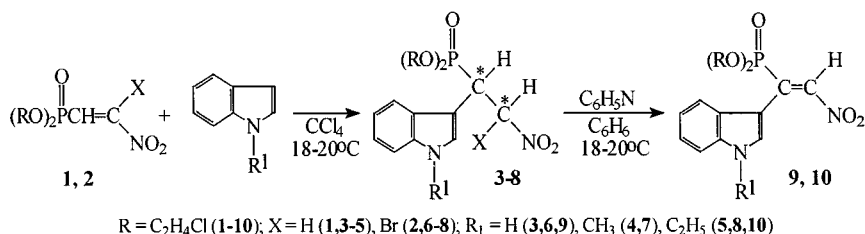
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NITROETHENYLPHOSPHONATES IN REACTIONS WITH INDOLE AND ITS DERIVATIVES

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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 CCl₄, C₆H₆ or C₂H₅OH, at 18–20°C, without any catalyst, at 1:1 rating of initial substances) and leads to indolynitroethylphosphonates 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 indolynitroethenylphosphonates (**9**, **10**) and phosphorylated tryptamines on the basis of compounds (**3**, **5**) will be also presented.



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).