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# CHLORONITROSUBSTITUTED BENZOFUROXANS AND -FURAZANS IN REACTIONS OF PHOSPHORILATION AND AMINATION

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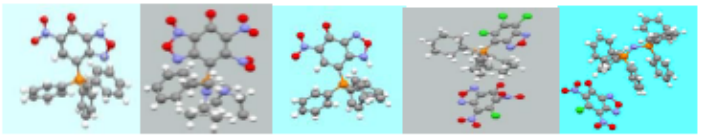
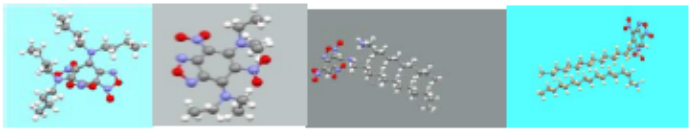
We previously reported on reactions of triphenylphosphine with various chloronitrobenzofuroxans and –furazans; these reactions involved one or both chloro and nitro substituents and led to phosphorylation products which showed high and diverse pharmacological activity. The structure of the isolated compounds was determined by X-ray analysis:



The present article describes the results of our study on the reactions of benzofuroxans and –furazans with amines in ethanol-diethyl ether. The amination of 4,6-dichloro-5,7-dinitrobenzofuroxan and –furazan followed the aromatic nucleophilic substitution pattern ($S_NAr$) and gave products of replacement of one or both chlorine atoms in the six-membered ring with elimination of hydrogen chloride. Stable crystalline σ-complexes (Meisenheimer adducts) were isolated in the reactions of 4,6-dinitrobenzofuroxan with dodecyl- and hexadecylamines (X-ray analysis):



New compounds were synthesized and their structures were determined by IR, NMR, TG-DSC and elemental analysis. So, it may be concluded from our results that the synthesized compounds are potent antimicrobial agents against pathogenic bacteria and fungi.

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