SYNTHESIS OF AMORPHOUS FLUORESCENT PURINE HYBRIDS CONTAINING FIVE-MEMBERED HETEROCYCLES

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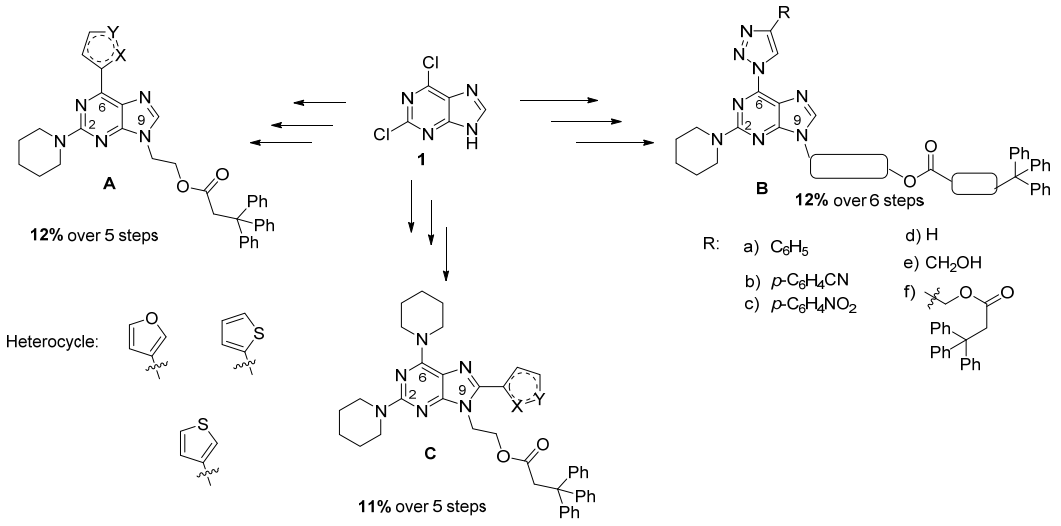
Based on the results of previously published fluorescent triazolylpurine nucleosides [1, 2], the synthesis of 6-triazolylpurine derivatives and other heterocyclic purine derivatives with amorphous groups at N(9) has been developed. Piperidinyl as electron donating group and various heteroatom containing substituents as electron accepting groups were introduced in purine structure at C(6) or C(8) position [3].

Combination of S_NAr, CuAAC and Suzuki-Miyaura reactions produced the expected products that were studied for their photophysical properties. Fluorescence quantum yields reached up to 89% in the solution and 55% in the thin layer film.



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[1] Kovaļovs, A.; Novosjolova, I.; Bizdēna, Ē.; Bižāne, I.; Skardziute, L.; Kazlauskas, K.; Jursenas, S.; Turks, M. *Tetrahedron Lett.* **2013**, *54*, 850.

[2] Šišuļins A, Bucevičius J, Tseng YT, et al. *Beilstein J. Org. Chem*. **2019**,15, 474–489.

[3] Kapilinskis, Z.; Novosjolova, I.; Turks, M. *Molbank* **2018**, M1024.