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“Materials Science and Applied Chemistry”

Program and Abstracts

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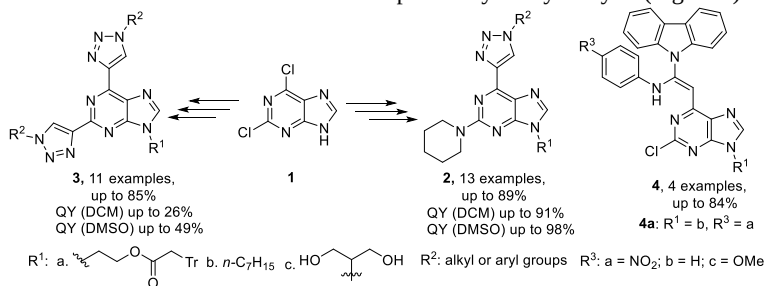
Synthesis of C-C linked Triazolympurines

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Purine-triazole conjugates belong to the push-pull systems and possess fluorescent properties which can be potentially used in OLED technology and in cell imaging.^{1,2}

Target compounds **2-3** were synthesized from 2,6-dichloropurine **1**, using the sequence of Mitsunobu, Sonogashira, CuAAC and S_NAr reactions (Scheme 1). Photophysical properties of target compounds have been studied. Quantum yields reached up to 91% in DCM and 98% in DMSO solutions. In S_NAr reactions with carbazole, the formation of triazole ring opening products **4** was observed and their structure was proven by X-ray analysis (Figure 1).



Scheme 1. General structures of obtained compounds **2-4**.

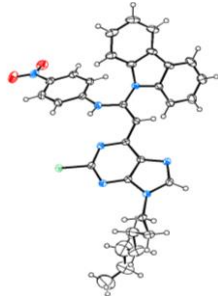


Figure 1. X-ray analysis of compound **4a**.

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References

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