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Synthesis and Reactivity of Imidazolyltetrazole Derivatives *via* Purine Ring Opening

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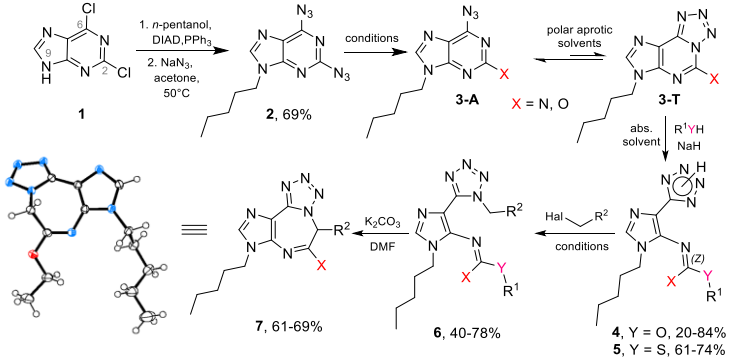
Imidazoles and tetrazoles are important pharmacophores with antibacterial and analgesic activities.[1] The present work focuses on S_NAr reactions of compound **3** with *O*- and *S*-nucleophiles. Compounds **3** exist in azido-tetrazole tautomeric equilibrium (Scheme 1) the extent of which is influenced by solvent, temperature and nearby electron-donating/electron-withdrawing groups.[2] The reactivity of ring opened products can further be explored by alkylating tetrazole ring and *in situ* creating tetrazolo fused 1,4-diazepine derivatives **7** (Scheme 1).



Scheme 1. Synthesis and reactivity of imidazolyltetrazole derivatives

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References

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