EXPEDITIOUS ACCESS TO HETEROCYCLIC DIVERSITY

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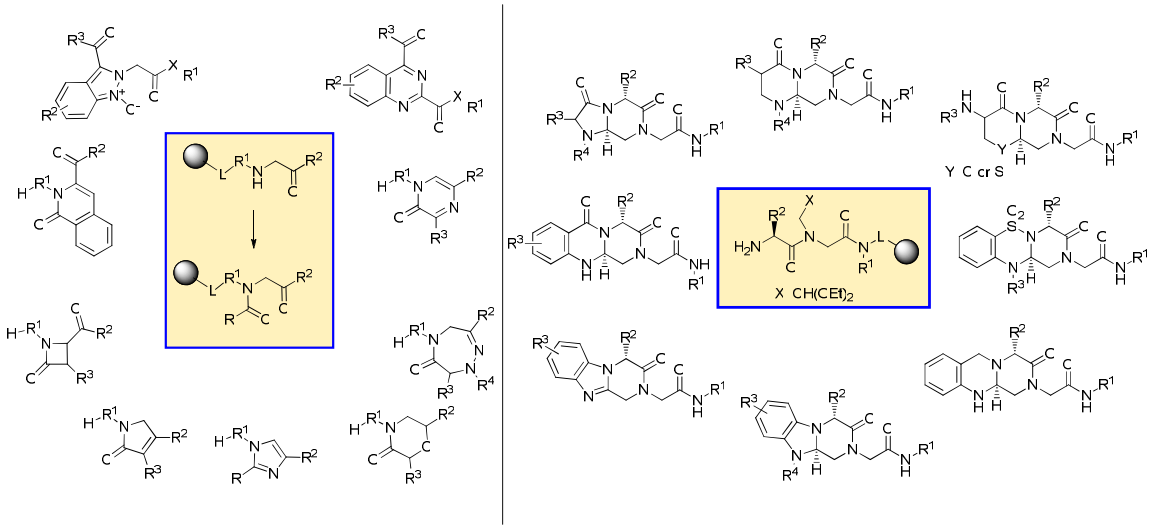
To cover a diverse set of heterocyclic frameworks and at the same time to make syntheses efficient and expeditious, we assembled diverse and structurally unrelated heterocycles from common solid-supported intermediates. This strategy allows efficient preparation of compounds with different frameworks and skeletal dissimilarity. Our approach will be documented on transformation of polymer-supported α-acylamino ketones and tandem *N*-acyliminium ion cyclization – nucleophilic addition. Syntheses involved known as well as novel chemical routes and comprised variety of chemistries (C-C, C=C, C-N, C=N, C-O bond formations). Different sizes of heterocycles (4-, 5-, 6-, and 7-membered rings) were prepared including dihydro-pyrrol-2-ones, pyrazin-2-ones, dihydro-triazepin-6-ones, morpholin-3-ones, imidazoles, β-lactams, and isoquinolin-1-ones.[1] Further elaboration to fused ring systems was also documented. In addition several unexpected synthetic routes leading to efficient syntheses of heterocycles will be presented.[2]

Schéma 1



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1. Pudelova, N., Krchnak, V.: *J. Comb. Chem.* **2009**, *11*, 851-859.
2. Krupkova, S., Slough, G.A., V. Krchnak, V.: *J. Org. Chem.* **2010**, *75*, 4562-4566.