



# 29<sup>th</sup> European Colloquium on HETEROCYCLIC CHEMISTRY

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## BOOK OF ABSTRACTS

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# DEEP EUTECTIC SOLVENTS AS NON-INNOCENT AND ENVIRONMENTALLY RESPONSIBLE REACTION MEDIA FOR THE DIVERGENT SYNTHESIS OF VALUABLE N-HETEROCYCLES FROM AZIDES

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The increasing demand for environmentally friendly chemical processes has led to the development of more efficient and profitable strategies for the preparation of heterocyclic compounds with a low ecological footprint.<sup>1</sup> Over the last few years, our group focused on the sustainable synthesis of functionalized heterocycles such as tetrahydrofuran,<sup>2</sup> thiophene, pyridyl and indolyl derivatives<sup>3</sup> in the so-called Deep Eutectic Solvents (DESs), which represent an emerging generation of bio-based solvents.<sup>4</sup>

In this communication, we report the divergent synthesis of a collection of valuable N-heterocycles like 2,5-diarylpyrazines,<sup>5a</sup> 2-arylimidazoles,<sup>5b</sup> 2,4-diaroyl-6-arylpurimidines,<sup>5b</sup> and 1,2,3-triazoles, which are important scaffolds in many biologically active and pharmaceutically relevant molecules,<sup>6</sup> simply starting from substituted azides as substrates, and using DESs as both biodegradable solvents and effective catalysts, under mild conditions.

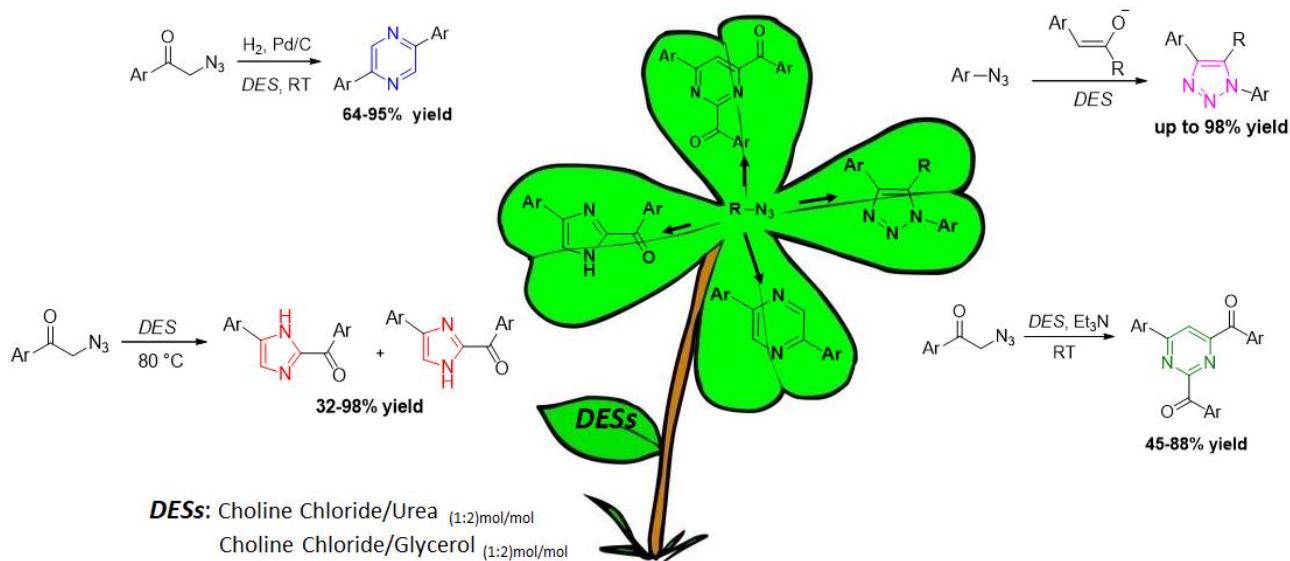


Figure 1: Synthesis of pyrimidines, imidazoles, pyrazines, and triazoles in DESs.

## References

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