

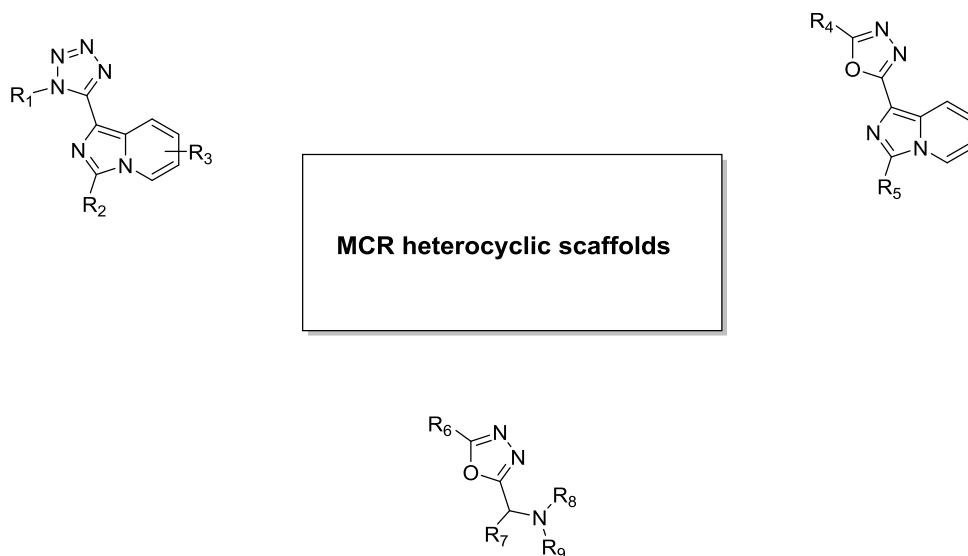
## Tetrazole and oxadiazole heterocycles via multi-component reaction schemes

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Five-membered heterocyclic rings are common motifs in drug design and medicinal chemistry. In particular, the heteroaromatic five-membered rings have a great impact on lipophilicity, solubility and ligand – protein interactions. Therefore, there is a constant need to explore new synthetic strategies with high atom economy and route simplicity in order to further expand the chemical space of heterocycles. Herein, we show synthetic methodologies based on multi-component reactions to accelerate the synthesis of libraries of derivatives based on tetrazoles and oxadiazole heterocycles.



The scaffolds can be accessed using commercially available building blocks, leading to great diversity on the substituents. In all cases, sequential reactions, starting from an Ugi-tetrazole reaction were established for the library synthesis of the heterocycles. These scaffolds have applications in the fields of medicinal chemistry, material science and fluorescent probes.

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