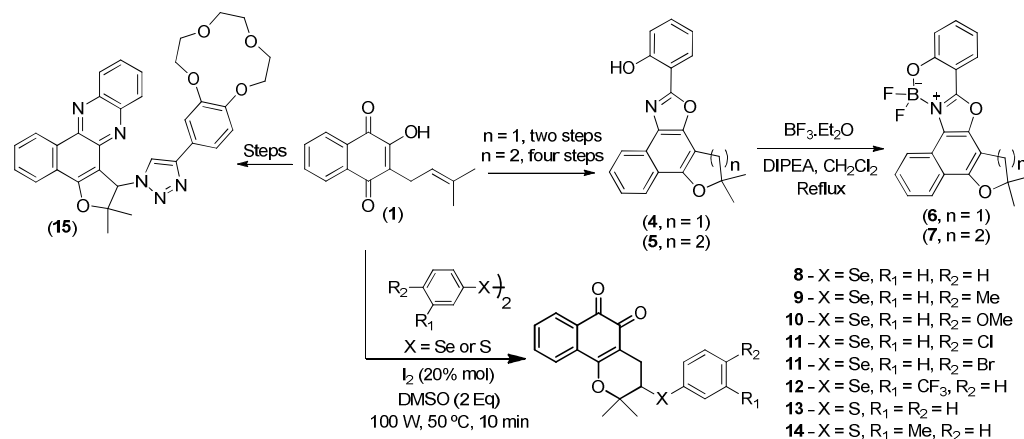


Structural Modifications of Quinoidal Molecules towards Bioactive and Fluorescent Heterocycles

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Over the past five years, our group has employed in design, synthesis and optimization of new heterocyclic compounds with different biological applications.^{1,3} In this context, we revealed the synthesis and the biological evaluations (e.g. bioimaging, cellular uptake and dynamics in living cells) of some new fluorescent oxazoles and their boron complexes which have allowed for selectively visualizing the whole endocytic pathway. The target compounds were characterized by spectroscopic analyses, single crystal X-ray, photophysics and DFT calculations. In addition, a straightforward synthesis of chalcogen-containing β -lapachones with trypanocidal and antitumor activities and a new probe for alkaline metals are also described from lapachol, an affordable naturally occurring naphthoquinone.



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