

## **New Radical Routes for the Synthesis and Functionalization of Heteroaromatics**

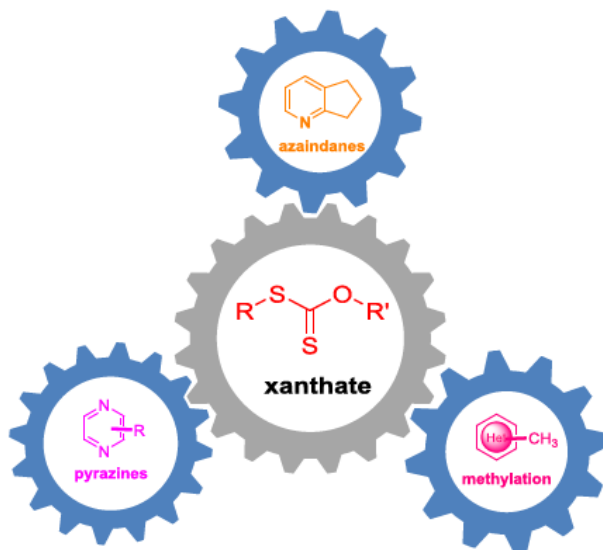
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My Ph. D. work focused on the synthesis and functionalization of heteroaromatics by adopting the unique radical chemistry of xanthates.

Based on the ability of xanthates to mediate both intermolecular additions to alkenes and subsequent intramolecular cyclizations onto pyridines, a modular approach to the preparation of highly functionalized azaindanes was first developed.<sup>1</sup>

The versatility of this methodology was further demonstrated by the intermolecular alkylations of pyrazines and several other heteroaromatics, allowing the introduction of various functional groups onto these heteroarenes under mild reaction conditions. Finally, based on the addition of carboxylic acid xanthates to heteroaromatics followed by spontaneous or thermal-induced decarboxylation, a simple and inexpensive method for the methylation and related alkylations to heteroarenes was also developed.<sup>2</sup>



### **Short Bibliographie**

Jan. 2018 – present: Post-doc, Ecole Polytechnique, Palaiseau, France.

Oct. 2014-Dec. 2017: Ph. D., Ecole Polytechnique, Palaiseau, France.

Sep. 2012-Jun. 2014: M. Sc., Ecole Polytechnique, Palaiseau, France.

Sep. 2008-Jun. 2012: B. Sc., Wuhan University, Wuhan, Hubei Province, China.

<sup>1</sup> Huang, Q.; Zard, S. Z. *Org. Lett.* **2017**, *19*, 3895–3898.

<sup>2</sup> Huang, Q.; Zard, S. Z. *Org. Lett.* **2018**, *20*, 1413–1416.