

Subject area: ORG

Iodine-Species as Efficient Catalyst for the C(sp²)-H Bond Chalcogenation of Organic Molecules Under Sustainable Conditions

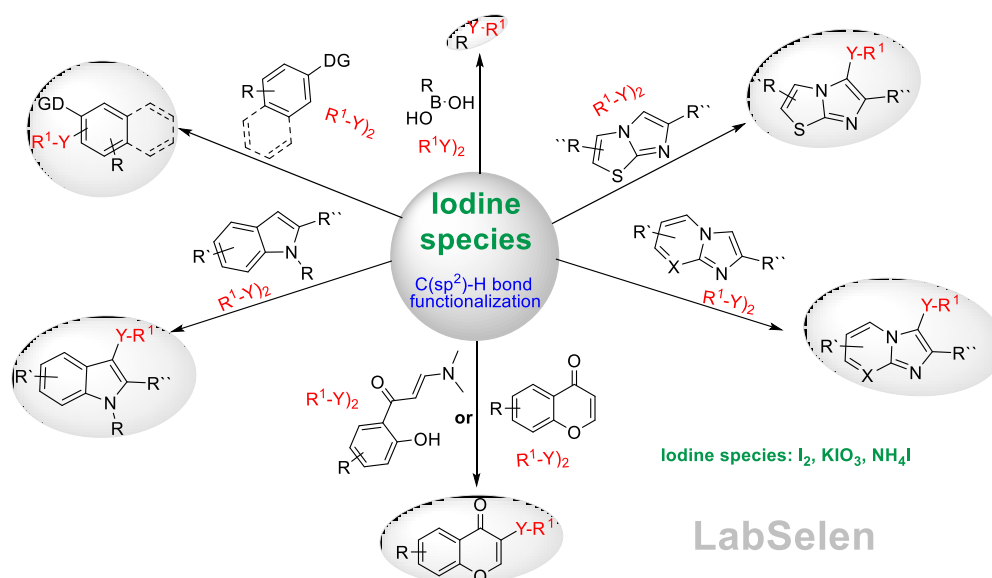
Jamal Rafique (PQ)^{1,2*}, Sumbal Saba (PQ)¹, Antonio L. Braga (PQ)^{1*}* [jamil.chm@gmail.com](mailto:jamal.chm@gmail.com) , sumbal6s@gmail.com , braga.antonio@ufsc.br¹ Departamento de Química, Universidade Federal de Santa Catarina – UFSC, 88040-970, Florianópolis – SC, Brazil.² Instituto de Química, Universidade Federal do Mato Grosso do Sul – UFMS, 79074-460, Campo Grande – MS, Brazil.Keywords: (hetero)arenes, C(sp²)-H bond functionalization, chalcogenation, selenide, green chemistry.

Highlights

- Iodine-Species as efficient catalyst for the chalcogenation of organic molecules under greener conditions
- C(sp²)-H bond chalcogenation of (hetero)arenes

Abstract

In recent years, different species of iodine are emerged as versatile reagent in the catalysis. With the theme of ESSeTe and WSeS, I will present our recent results (LabSelen-Braga) on the application of iodine species as a catalyst in the chalcogenation of organic molecules (Scheme 1). Under greener conditions, we have achieved diverse classes of chalcogenated (hetero)arenes *via* C(sp²)-H bond functionalization.¹



Scheme 1. Iodine-Species as an Efficient Catalyst for the C(sp²)-H Bond Chalcogenation

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