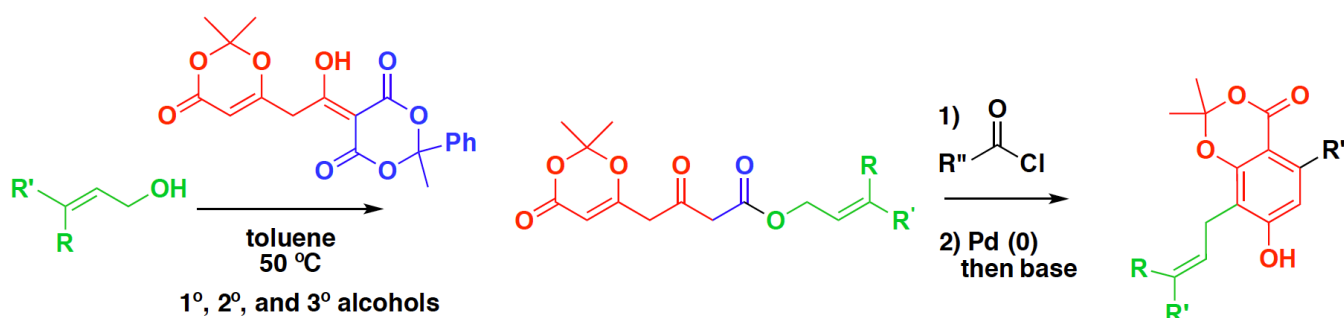


## Kiegiel-Type Reactions for the Efficient Synthesis of Dioxinone $\beta$ -Keto-esters and Derived Terpenoid Resorcyates: Total Synthesis of ( $\pm$ )-Daurichromenic and ( $\pm$ )-Cannabiorcichromenic Acids

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The 6-alkyl-2,4-dihydroxybenzoic acid or  $\beta$ -resorcylic acid moiety is a structural element present in many biologically active natural products. Over the past decade our group has developed a biomimetic strategy to synthesize resorcyate natural products that utilizes a palladium-catalyzed decarboxylative allylic migration and aromatization sequence of dioxinone  $\beta$ -keto-esters.<sup>1</sup> We have recently developed an efficient Kiegiel-type reaction to synthesize these key intermediates with an improved yield and scalability.<sup>2</sup> The new methodology will be presented, along with its application to the total synthesis of the natural products ( $\pm$ )-daurichromenic and ( $\pm$ )-cannabiorcichromenic acids.



[1] R. Cookson; T. N. Barrett.; A. G. M. Barrett *Acc. Chem. Res.* **2015**, *48*, 628-642.

[2] D. C. Elliott, T.-K. Ma, A. Selmani, R. Cookson, P.J. Parsons, and A. G. M. Barrett *Org. Lett.*, **2016**, *18*, 1800–1803.