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Selectivity in the Photo-Fries rearrangement reaction of Aryl Esters carried out in micro heterogeneous media

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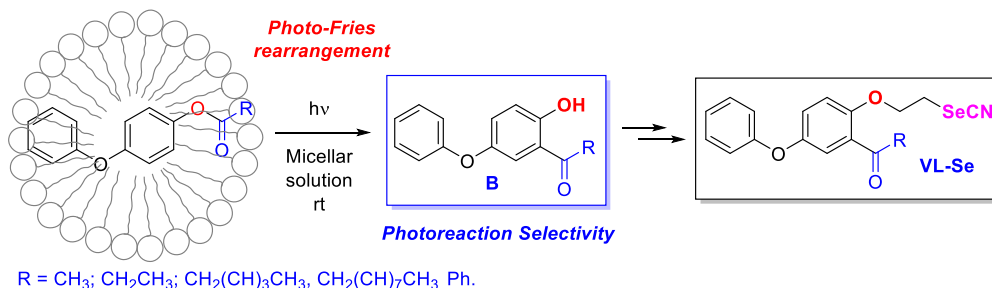
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ABSTRACT

The Photo-Fries rearrangement reaction of aryl esters was discovered by Anderson and Rees¹ in 1960 and was found to proceed efficiently in homogeneous media providing the *ortho*-regioisomers and the phenols. However, a notable selectivity on the product distribution can be controlled if the photoreaction is carried out in micellar solution providing 2-hydroxyphenones **B** as the sole photoproduct in almost quantitative yields. Furthermore, this methodology can be useful as a key step of a synthetic approach in the preparation of VL-Se, which exhibits promising activity against *Trypanosoma cruzii*.²



Upon direct irradiation of aryl esters in micellar solutions (CTAC, SDS and Brij-P35) with light of 254 nm led to prepare intermediates **B** in 85 – 98% yields with quantum yields of reaction (ϕ_R) up to 0.10. UV-visible absorption and NMR (DCS, NOESY and DOSY) spectroscopies were used to determine the location of the aryl esters within the hydrophobic core.

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