

4th Transmediterranean Colloquium on Heterocyclic Chemistry

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EPOXIDATION OF (*E,E*)-CINNAMYLIDENEACETOPHENONES USING SALEN Mn(III) AS CATALYST

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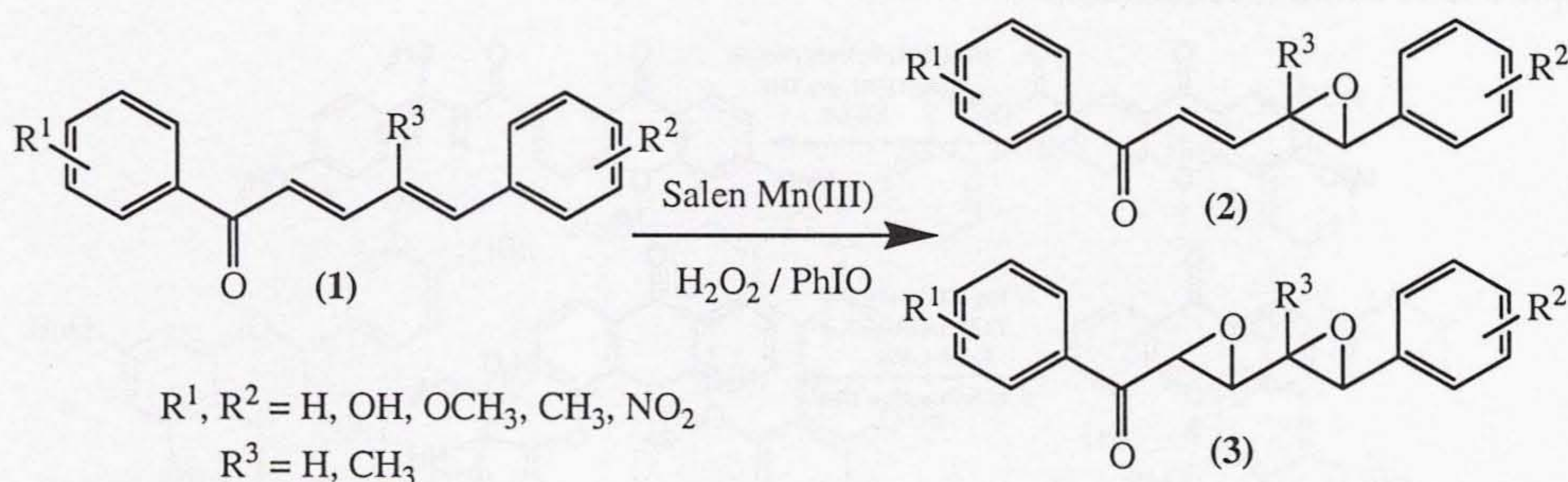
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Salen Mn(III) complexes are efficient and practical catalysts for the epoxidation of various α,β -unsaturated carbonyl compounds. Among common oxidants used are iodosylbenzene, sodium hypochlorite, oxone, peracids and dimethyldioxirane [1].

Although the epoxidation of cinnamylideneacetophenones have already been reported in literature (by Julia's epoxidation using hydrogen peroxide as oxidant [2] and by oxidation with dimethyldioxirane [3]), no studies were performed using these kind of salen Mn(III) complexes as catalysts. On these basis, we developed a study on the epoxidation of cinnamylideneacetophenones **1**, catalyzed by commercially available Jacobsen's catalyst [salen Mn(III)] and using iodosylbenzene and hydrogen peroxide as oxidants. Several experimental conditions have been used and the γ,δ -monoepoxides **2** and, in some cases, the diastereomeric mixture of $\alpha,\beta:\gamma,\delta$ -diepoxides **3** have been obtained. In this communication, we report the synthetic details and structural characterisation of the mono **2** and diepoxides **3** obtained.



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Certificate of Attendance

We have the pleasure to confirm that Clementina Santos has attended the 4th Transmediterranean Colloquium on Heterocyclic Chemistry and has presented a Short Oral Communication.

Artur Silva

Prof. Artur M. S. Silva

Chairman