

## Supplementary Materials

### An amphiphilic manganese porphyrin-paired ionic copolymer: a highly efficient biphasic transfer catalyst for the selective oxidation of olefins with O<sub>2</sub> and TBHP

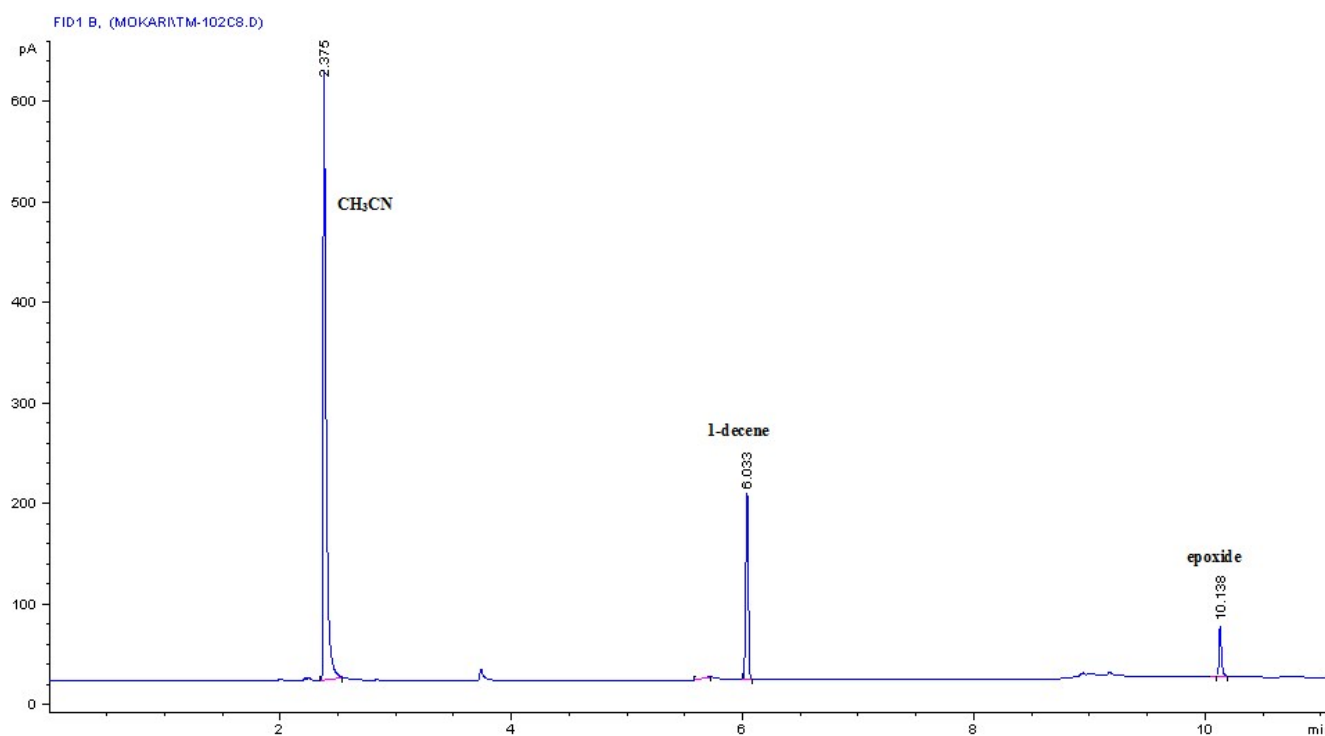
Tahereh Mokary Yazdely,<sup>a</sup> Massomeh Ghorbanloo<sup>a1</sup>, Hassan Hosseini-Monfared<sup>a</sup>

<sup>a</sup> Department of Chemistry, Faculty of Science, University of Zanjan, 45371-38791 Zanjan, Iran

E-mail: [m\\_ghorbanloo@yahoo.com](mailto:m_ghorbanloo@yahoo.com) (Massomeh Ghorbanloo); [monfared@znu.ac.ir](mailto:monfared@znu.ac.ir) (Hassan Hosseini

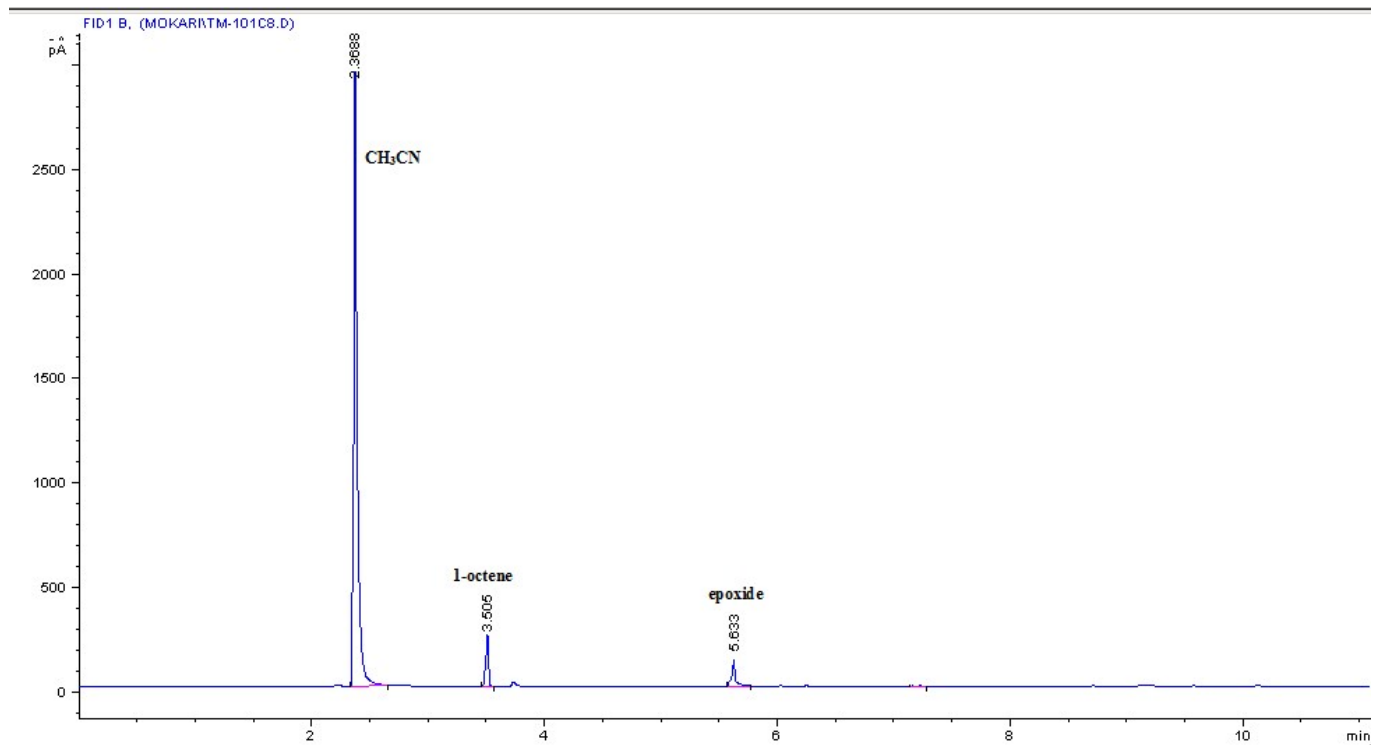
Monfared); [t.mokari85@gmail.com](mailto:t.mokari85@gmail.com) (Tahereh Mokary Yazdely).

CH<sub>3</sub>CN as solvent

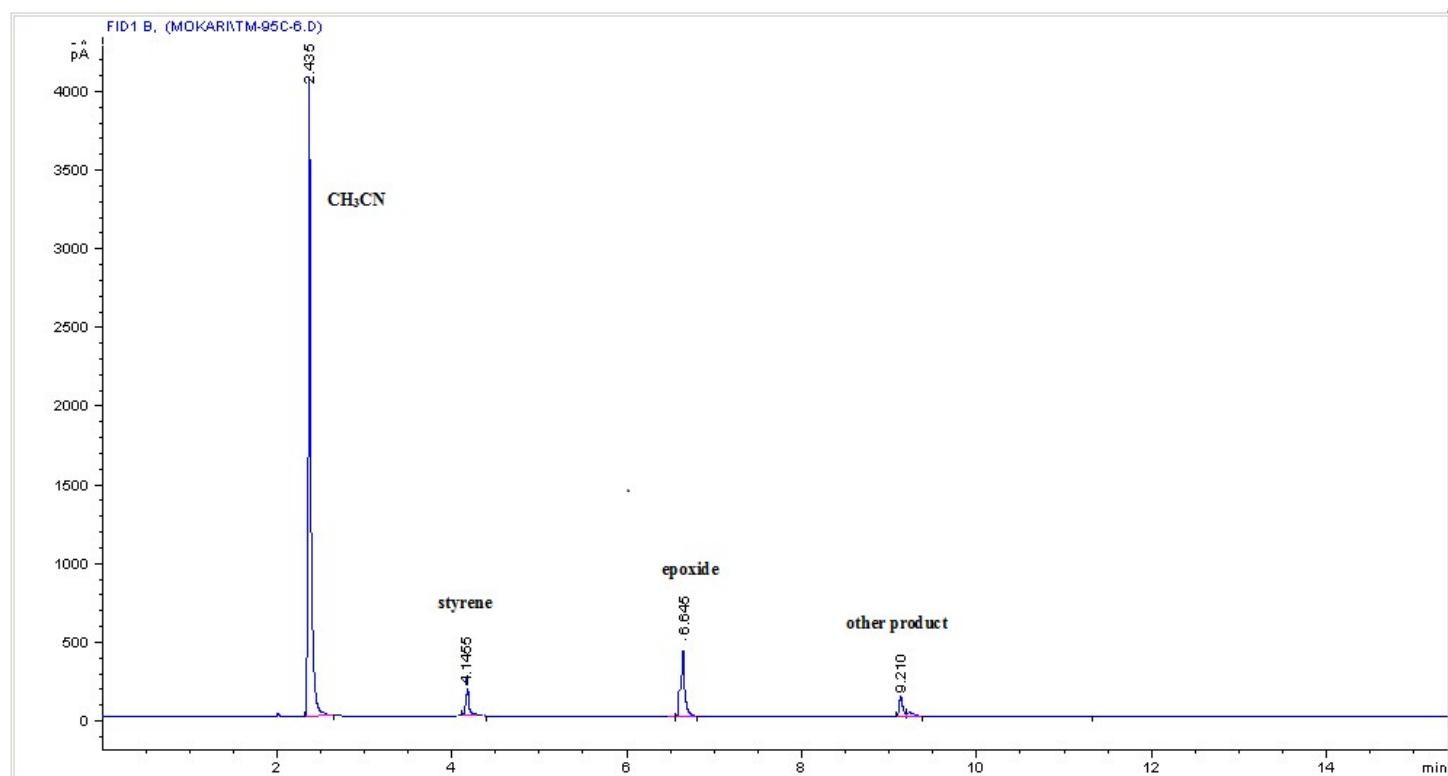


**Fig. S1** GC chromatogram of oxidation of 1-decene in CH<sub>3</sub>CN in the presence of O<sub>2</sub> as oxidant

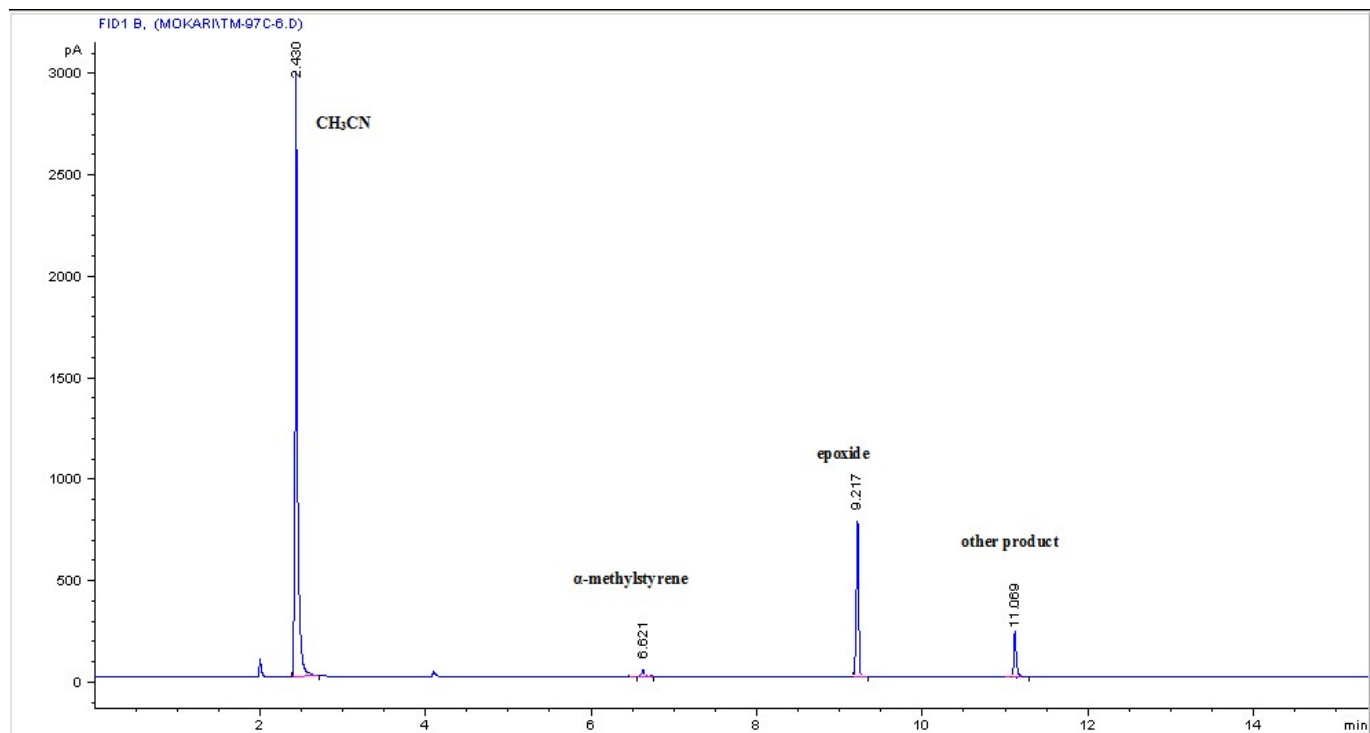
<sup>1</sup> E-mail: [m\\_ghorbanloo@yahoo.com](mailto:m_ghorbanloo@yahoo.com); Tel: +98-24-33054084; Fax: +98-24-33052477



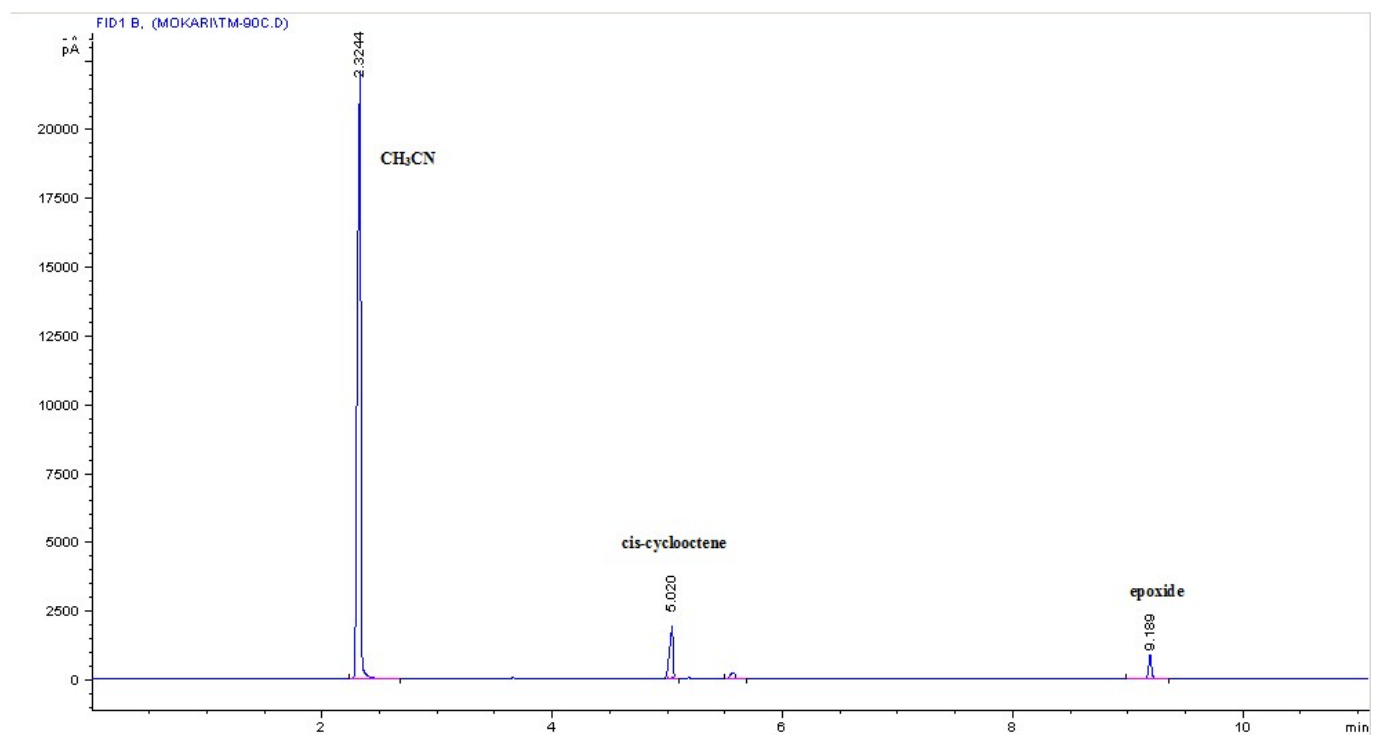
**Fig. S2** GC chromatogram of oxidation of 1-octene in CH<sub>3</sub>CN in the presence of O<sub>2</sub> as oxidant



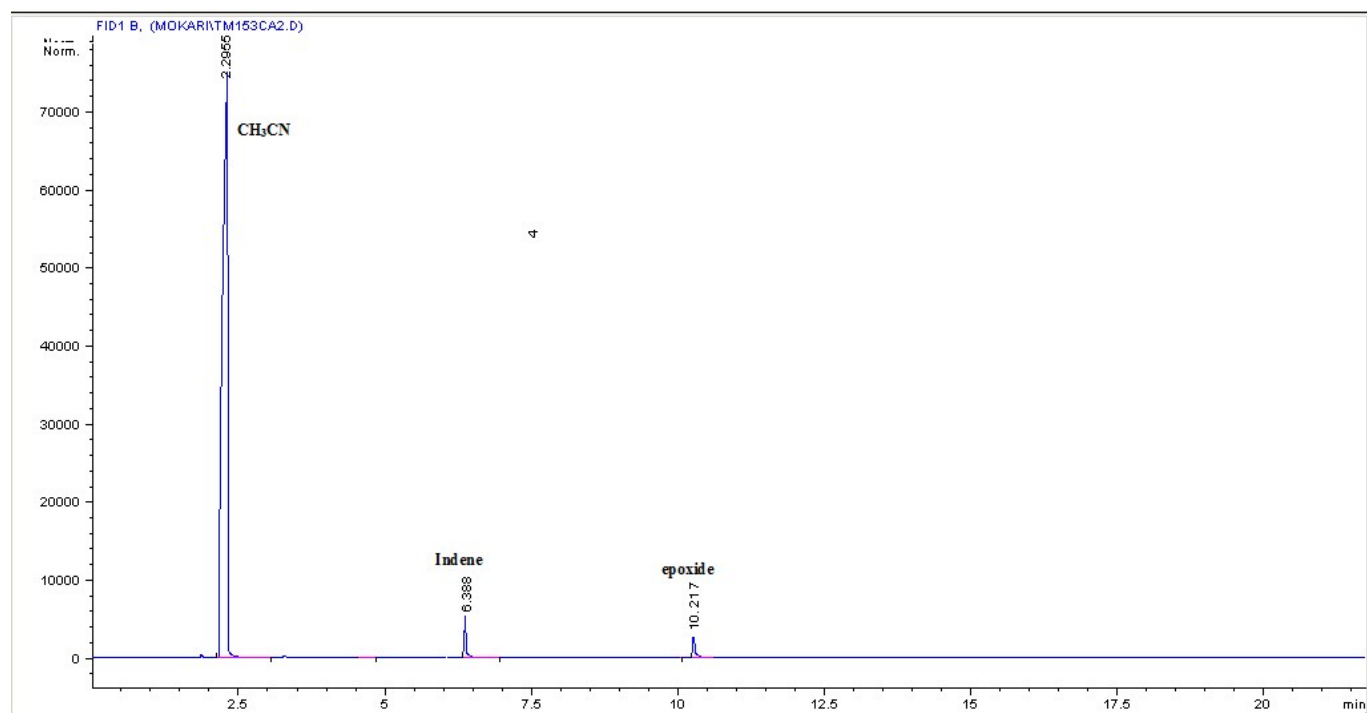
**Fig. S3** GC chromatogram of oxidation of styrene in CH<sub>3</sub>CN in the presence of O<sub>2</sub> as oxidant



**Fig. S4** GC chromatogram of oxidation of  $\alpha$ -methyl styrene in  $\text{CH}_3\text{CN}$  in the presence of  $\text{O}_2$  as oxidant



**Fig. S5** GC chromatogram of oxidation of cis-cyclooctene in  $\text{CH}_3\text{CN}$  in the presence of  $\text{O}_2$  as oxidant



**Fig. S6** GC chromatogram of oxidation of indene in CH<sub>3</sub>CN in the presence of O<sub>2</sub> as oxidant

## n-Hexane as solvent

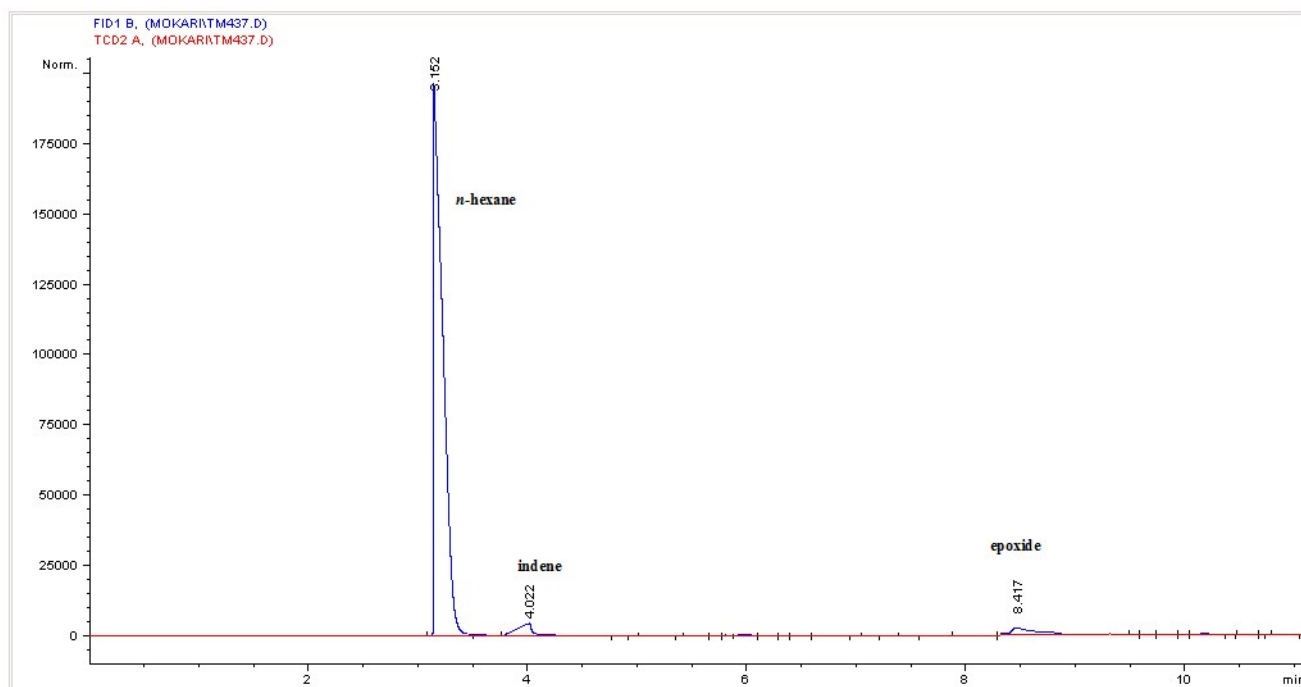


Fig. S7 GC chromatogram of oxidation of indene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

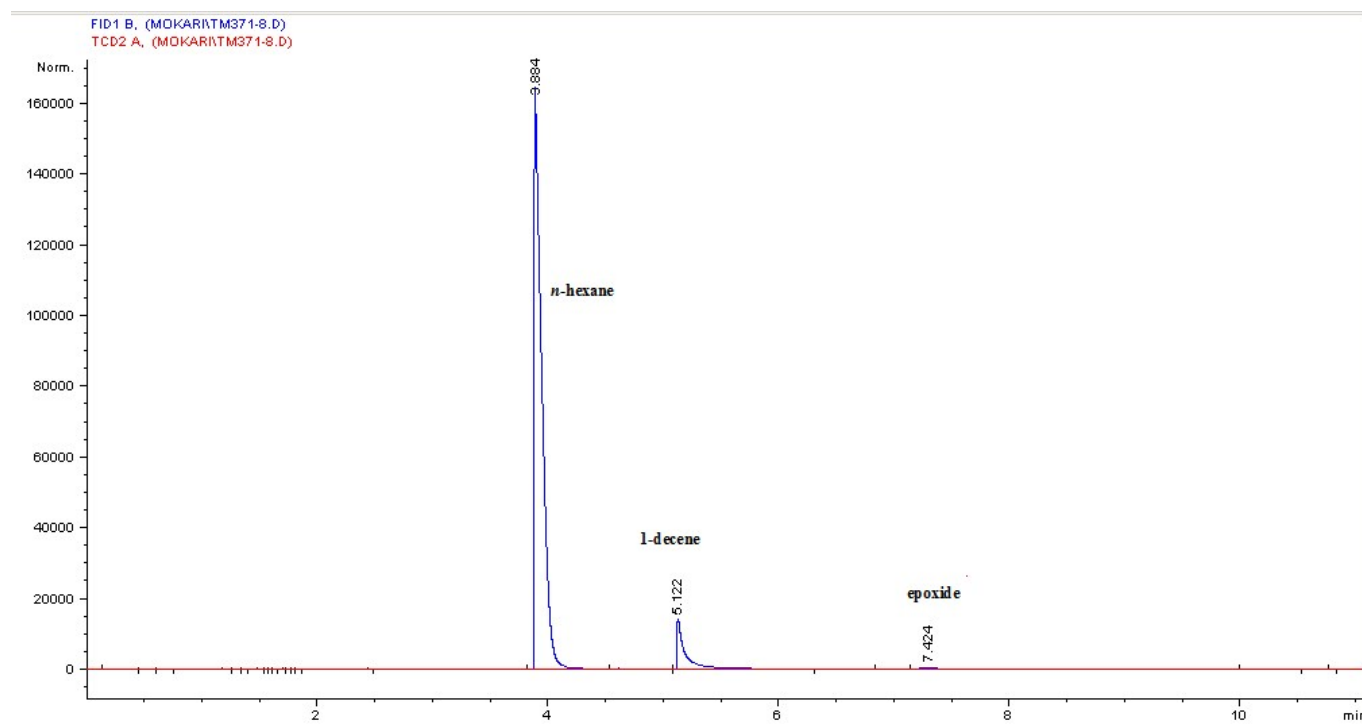


Fig. S8 GC chromatogram of oxidation of 1-decene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

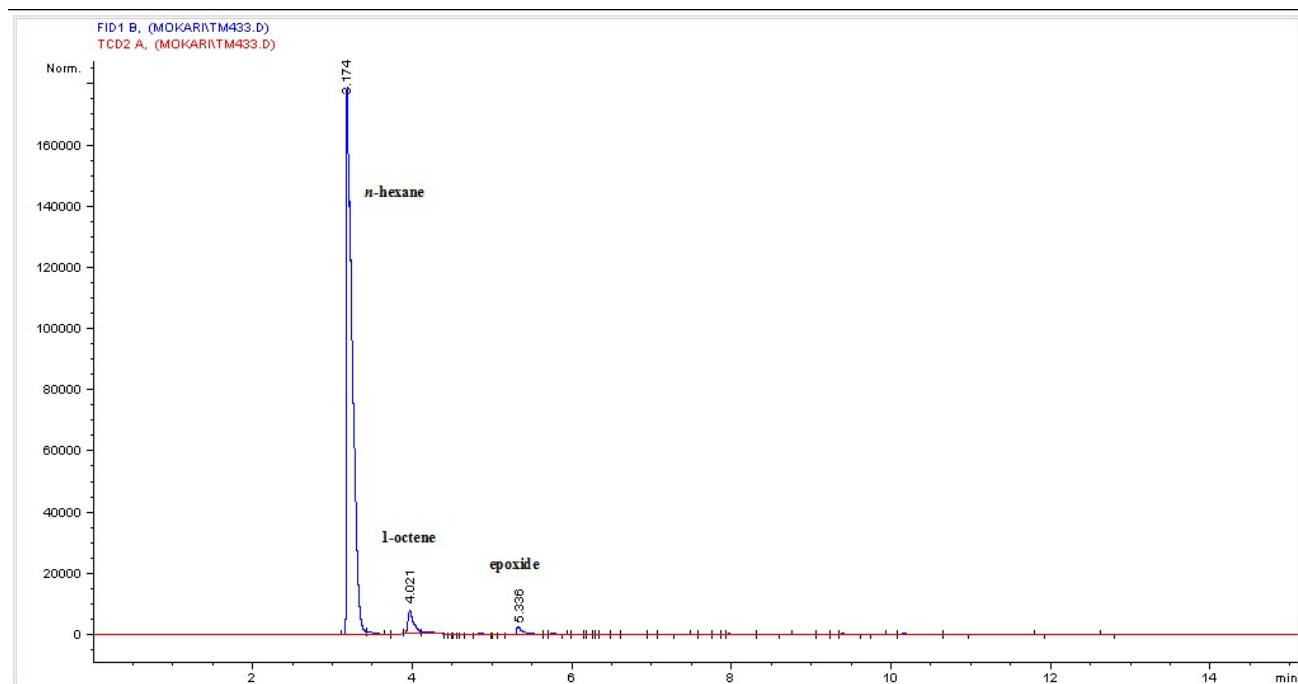


Fig. S9 GC chromatogram of oxidation of 1-octene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

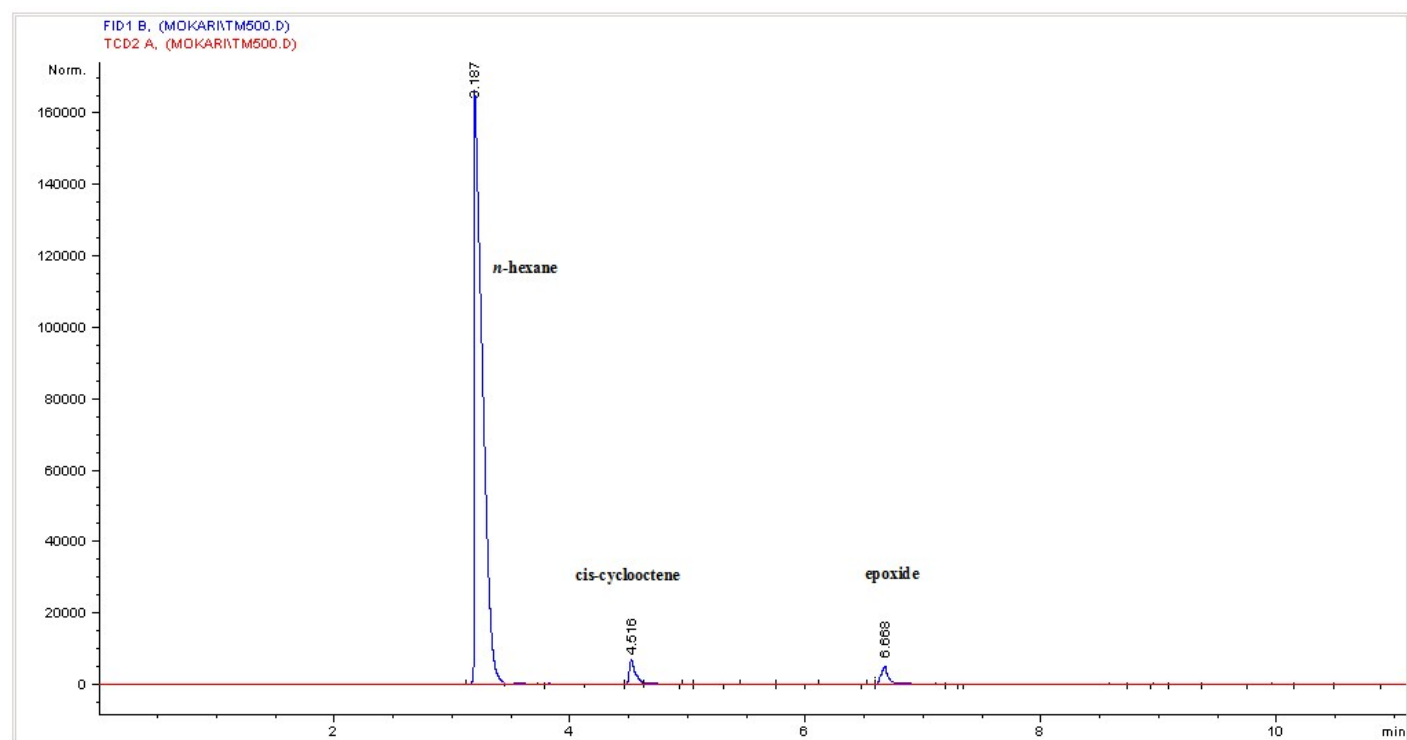


Fig. S10 GC chromatogram of oxidation of cis-cyclooctene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

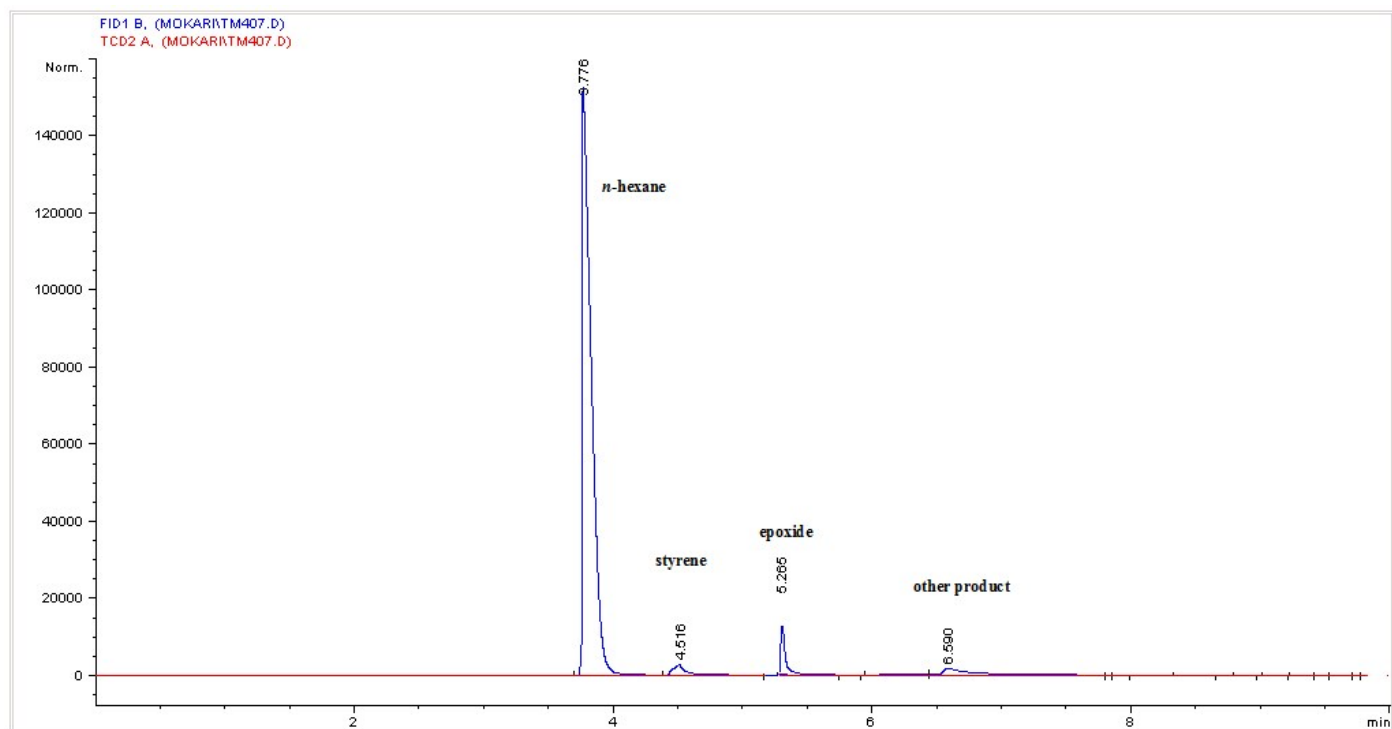


Fig. S11 GC chromatogram of oxidation of styrene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

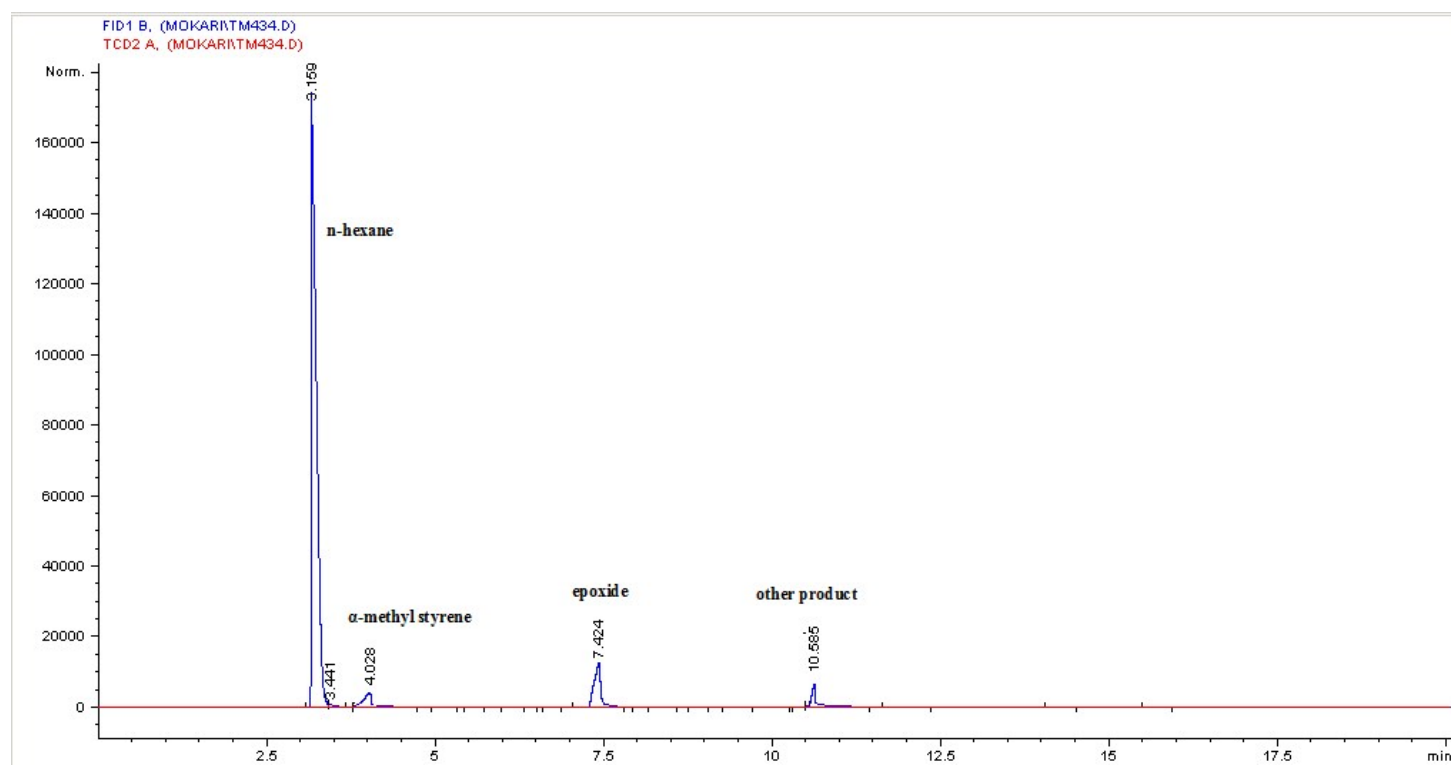
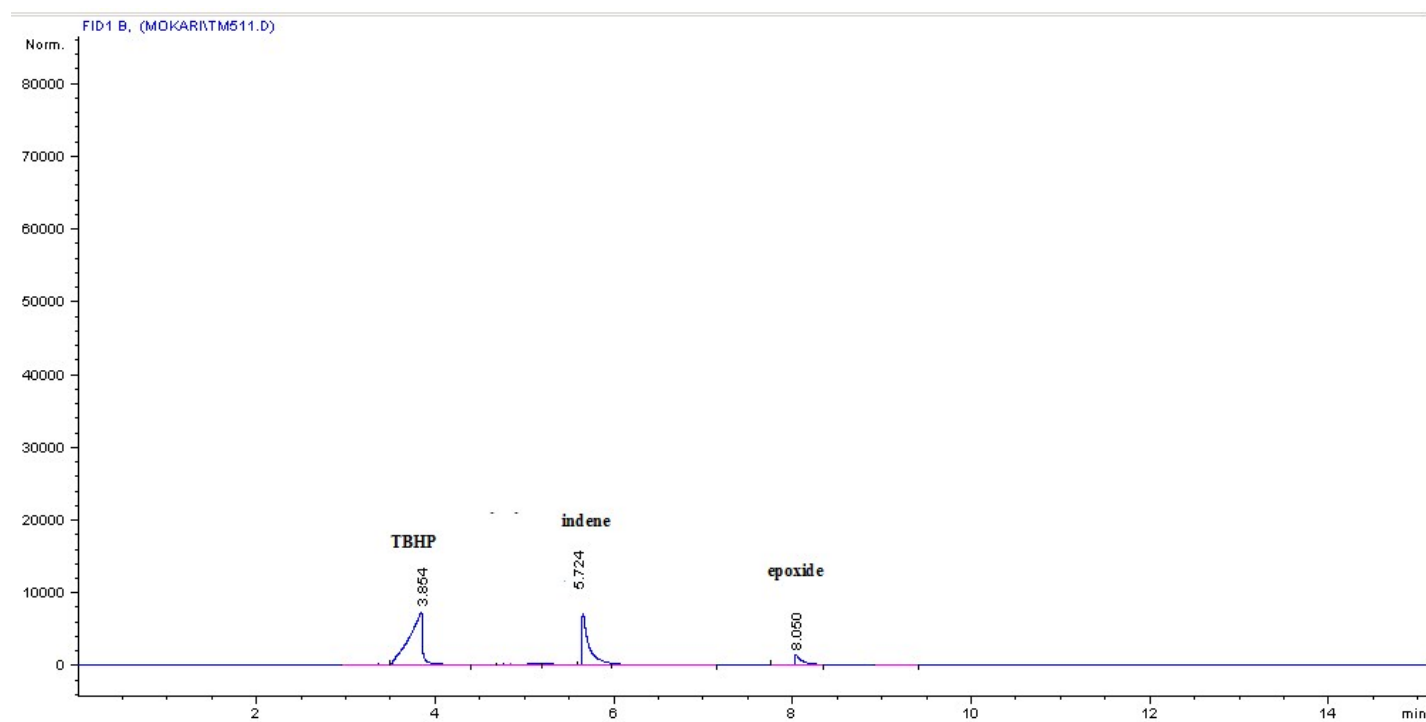
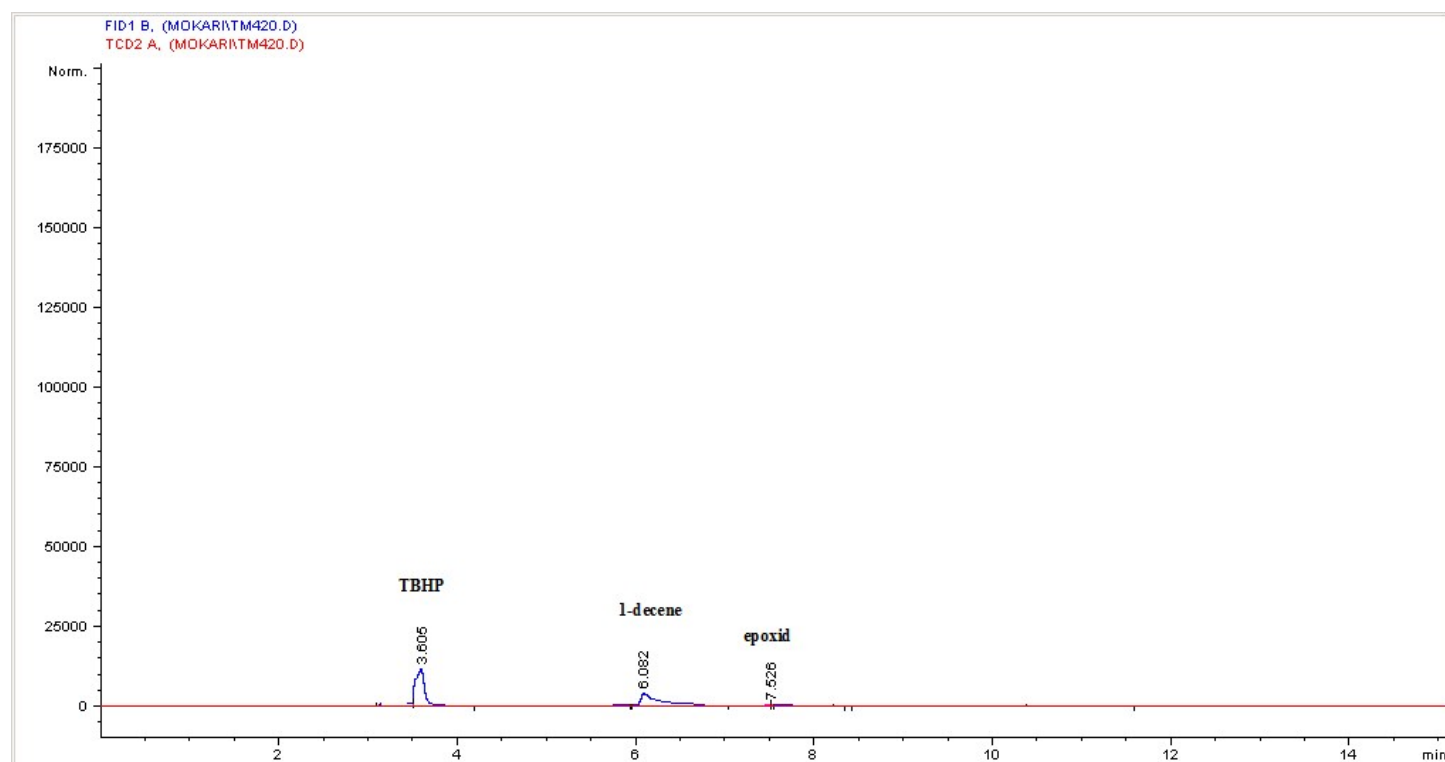


Fig. S12 GC chromatogram of oxidation of  $\alpha$ -methylstyrene in *n*-hexane in the presence of O<sub>2</sub> as oxidant

## Solvent free and TBHP as oxidant

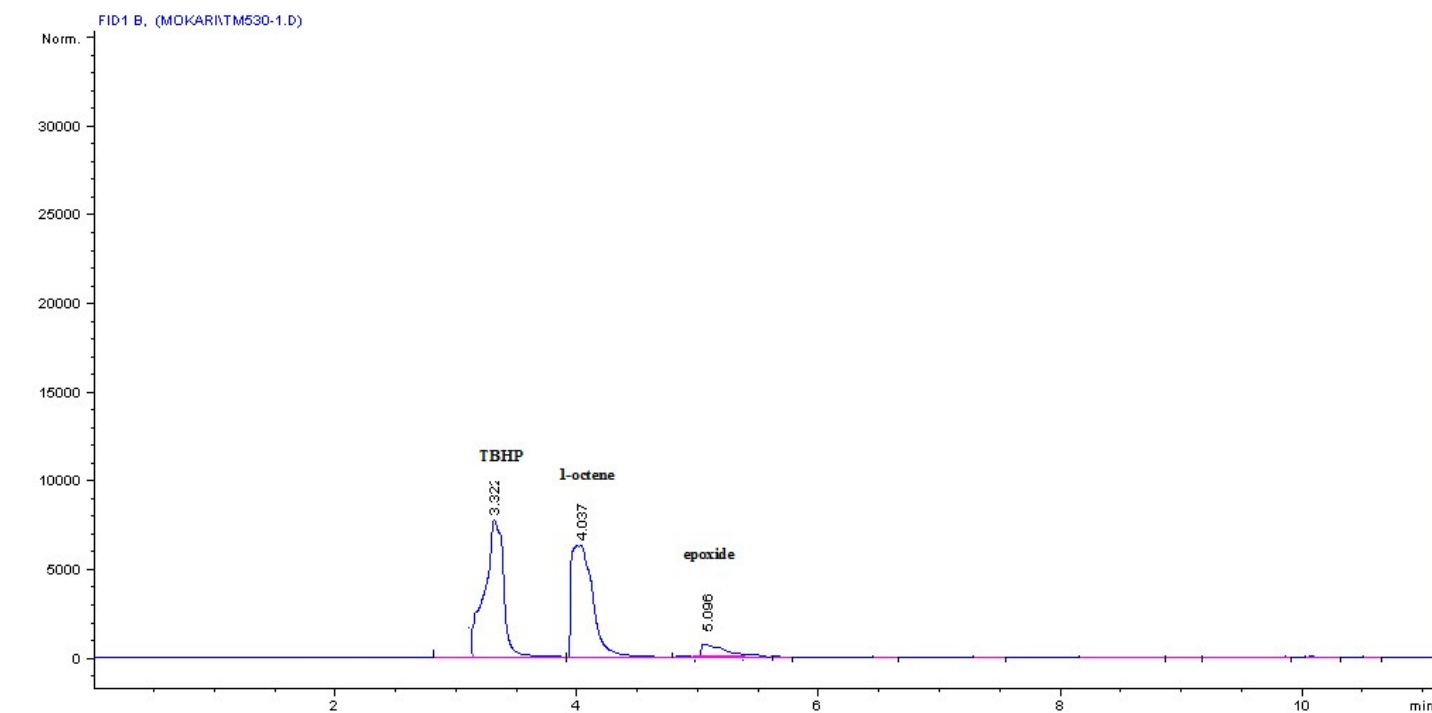


**Fig. S13** GC chromatogram of oxidation of indene in the presence of TBHP as oxidant without solvent

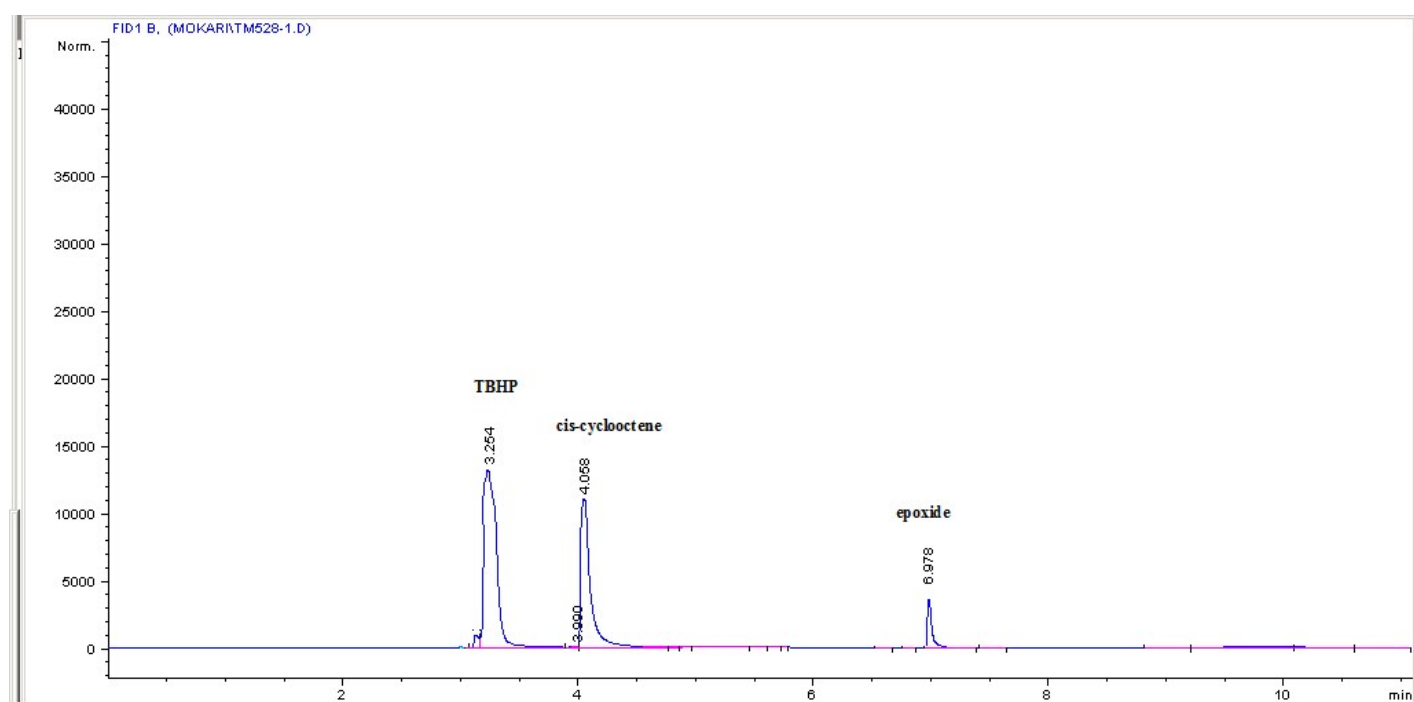


**Fig. S14** GC chromatogram of oxidation of 1-decene in the presence of TBHP as oxidant without solvent

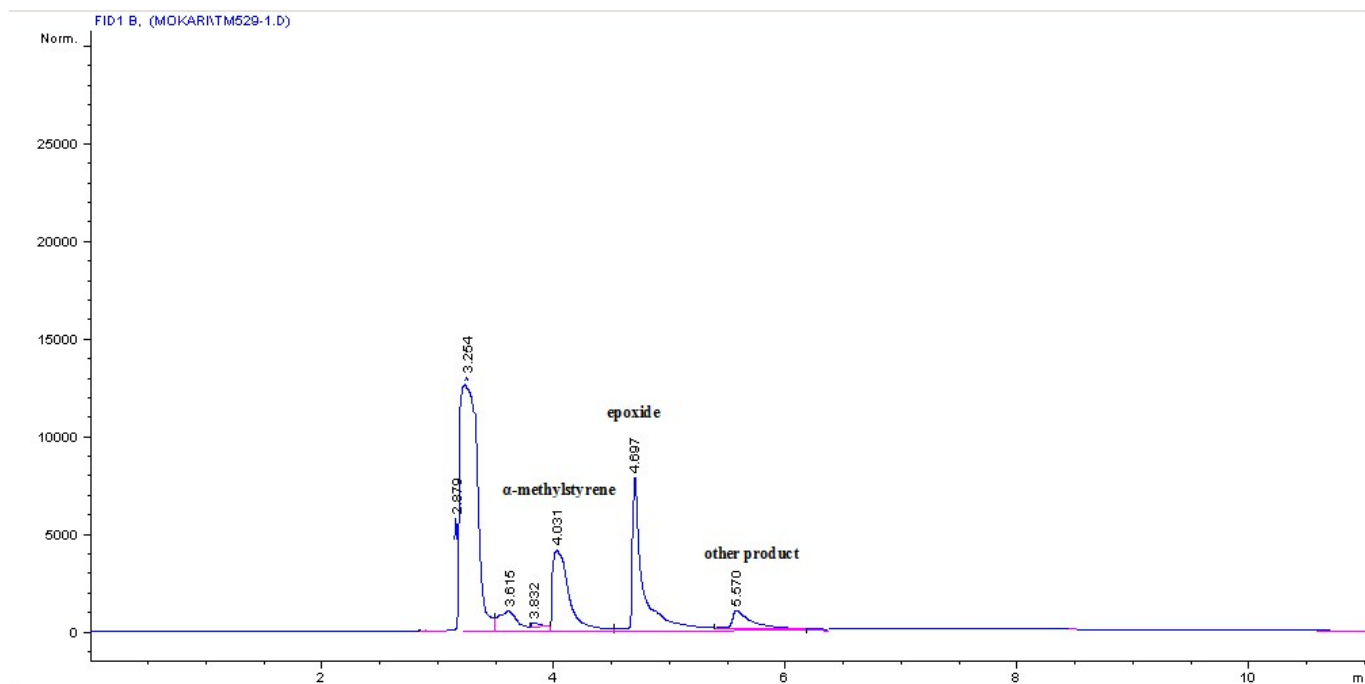




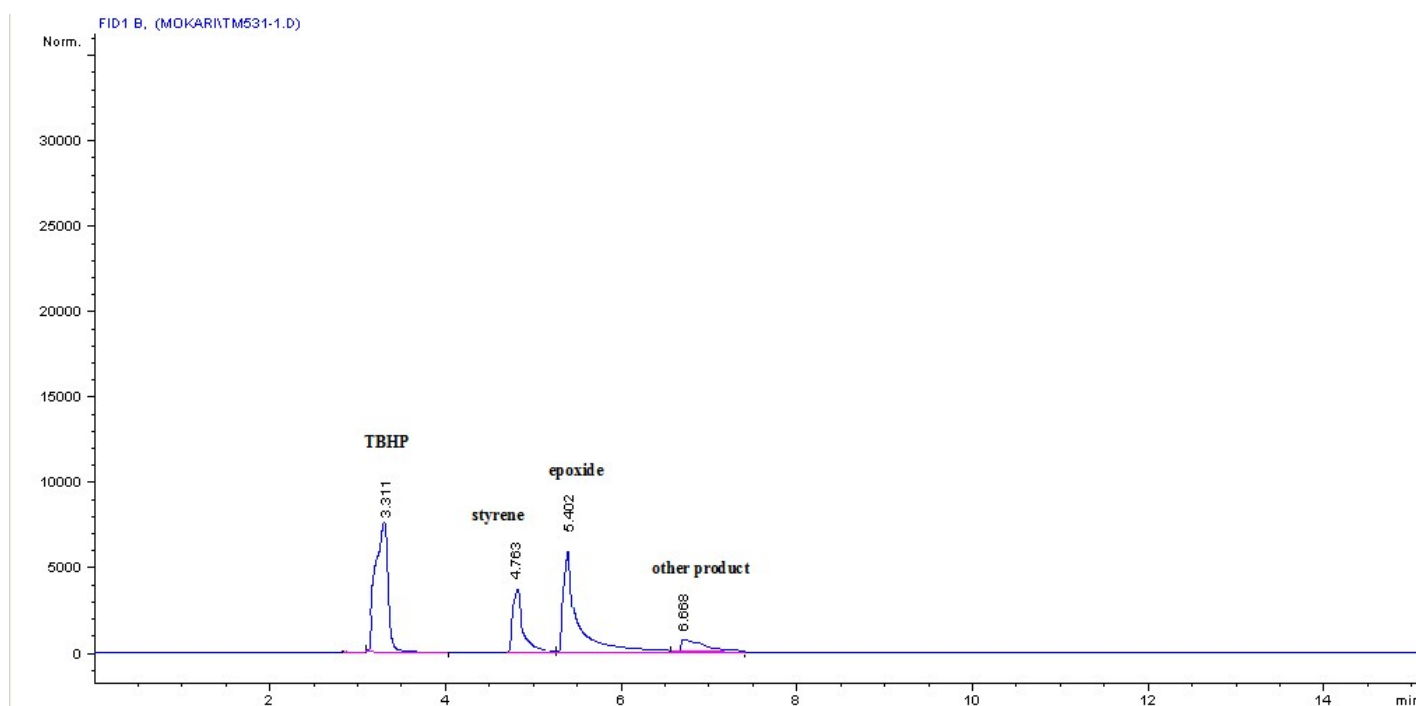
**Fig. S15** GC chromatogram of oxidation of 1-octene in the presence of TBHP as oxidant without solvent



**Fig. S16** GC chromatogram of oxidation of cis-cyclooctene in the presence of TBHP as oxidant without solvent



**Fig. S17** GC chromatogram of oxidation of  $\alpha$ -methyl styrene in the presence of TBHP as oxidant without solvent



**Fig. S18** GC chromatogram of oxidation of styrene in the presence of TBHP as oxidant without solvent