

Supporting information

for

Photocatalytic degradation of diphenhydramine in aqueous solution by natural dolomite

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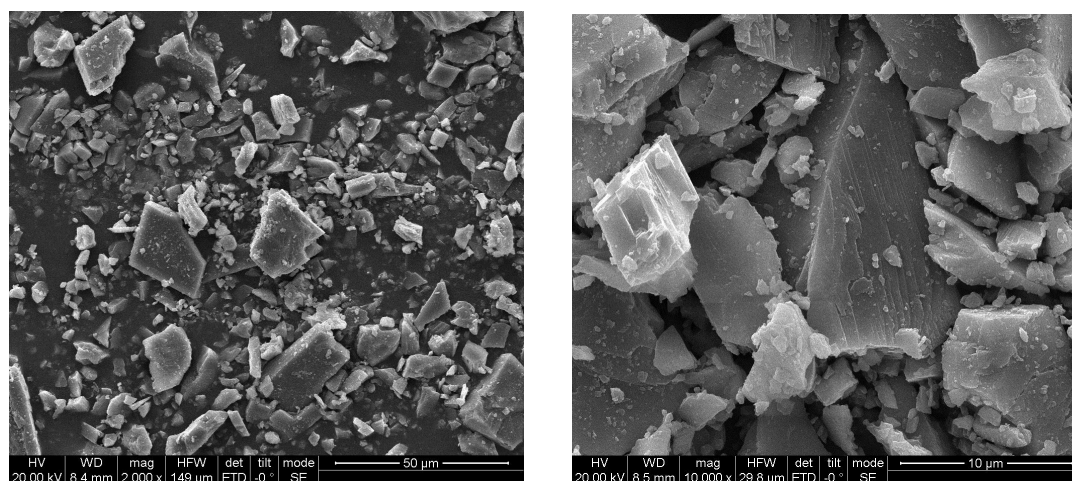


Fig. S1. SEM image of the natural dolomite at different magnifications

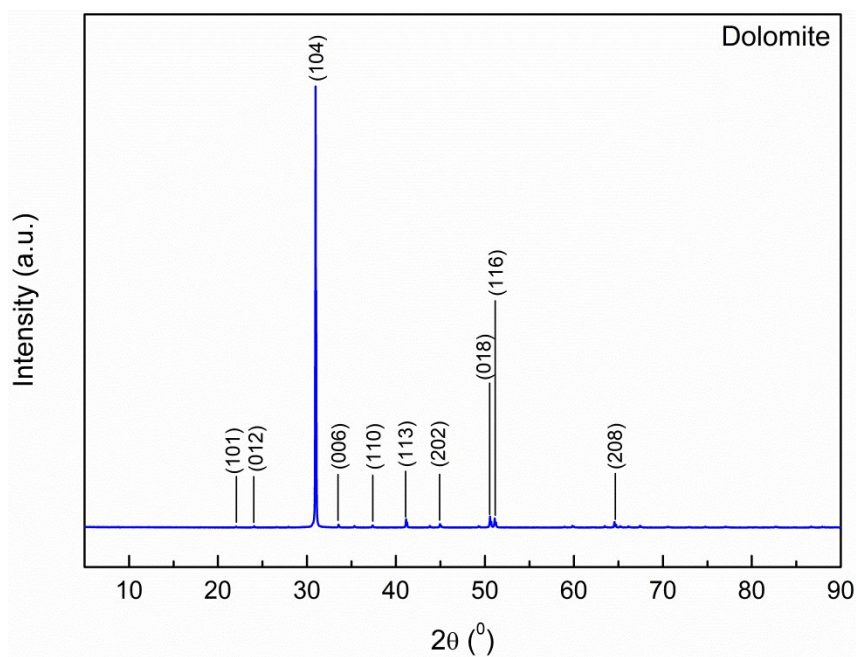


Fig. S2. XRD pattern of the natural dolomite sample.

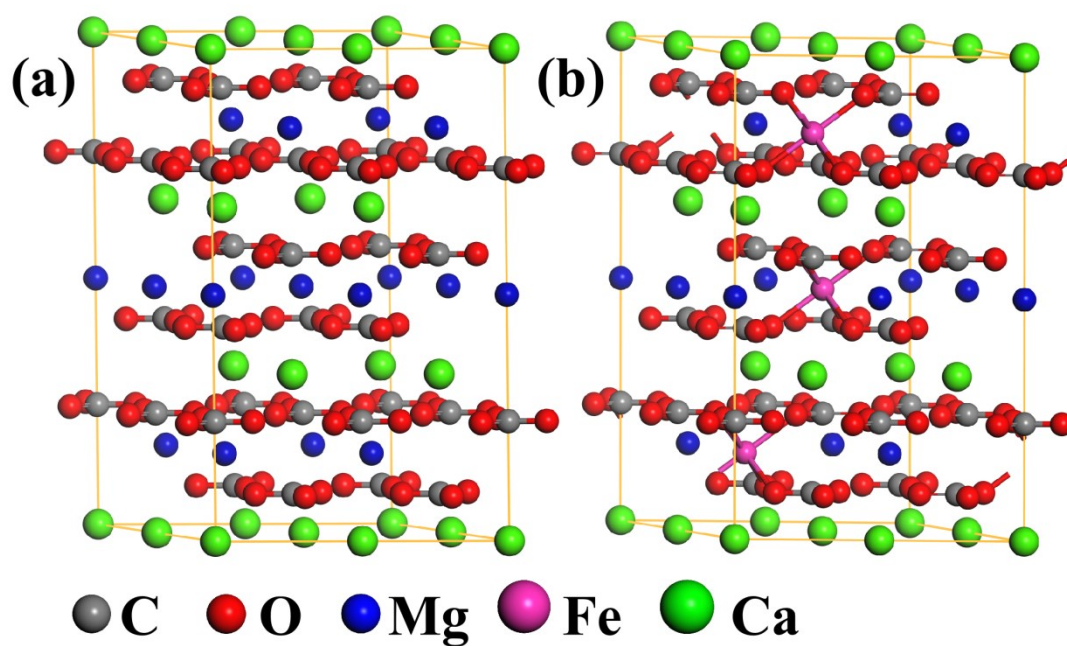


Fig. S3. The optimized structures of (a) the $2 \times 2 \times 1$ dolomite supercell, and (b) the supercell with 3 Fe^{2+} substitution for 3 Mg^{2+} .

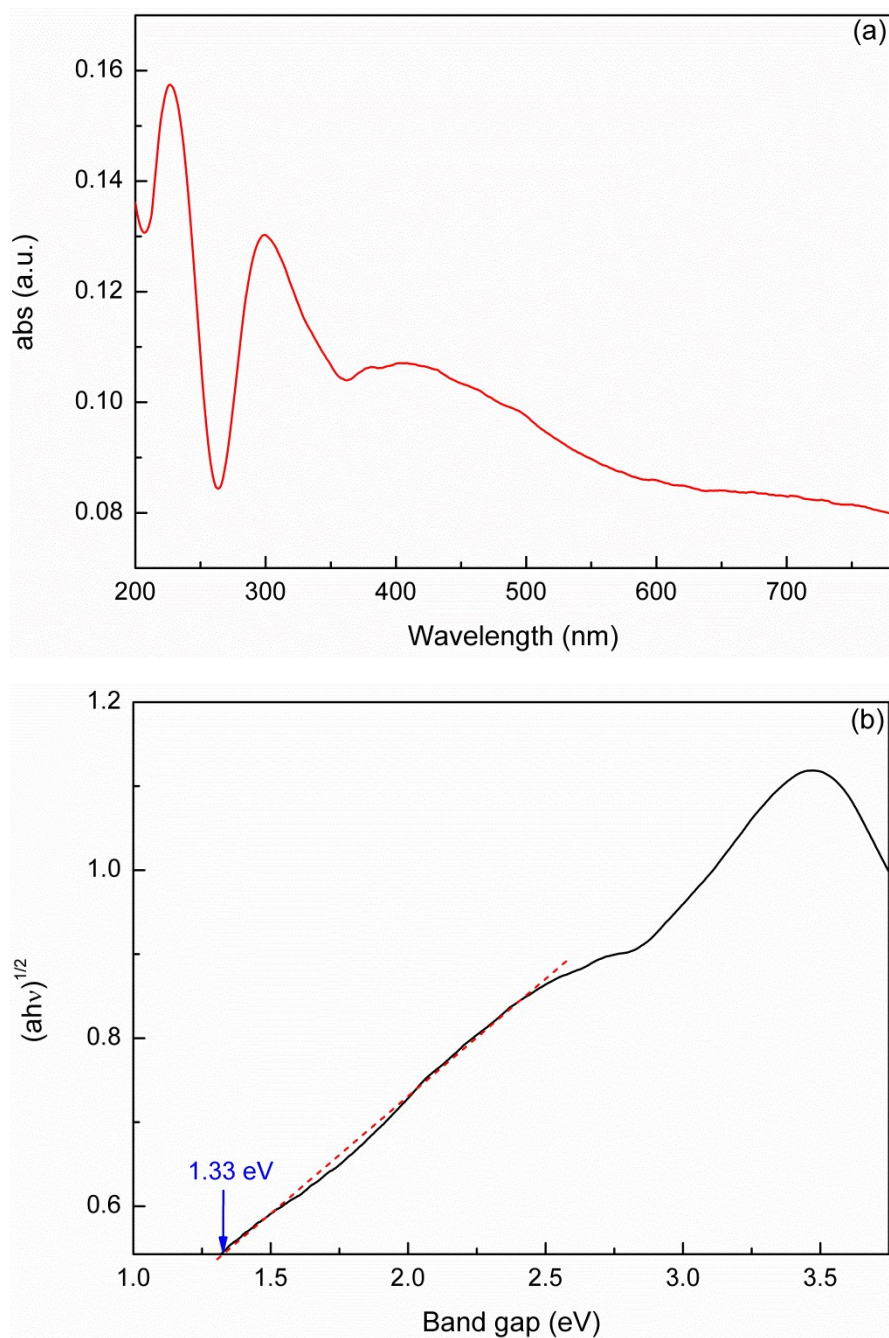
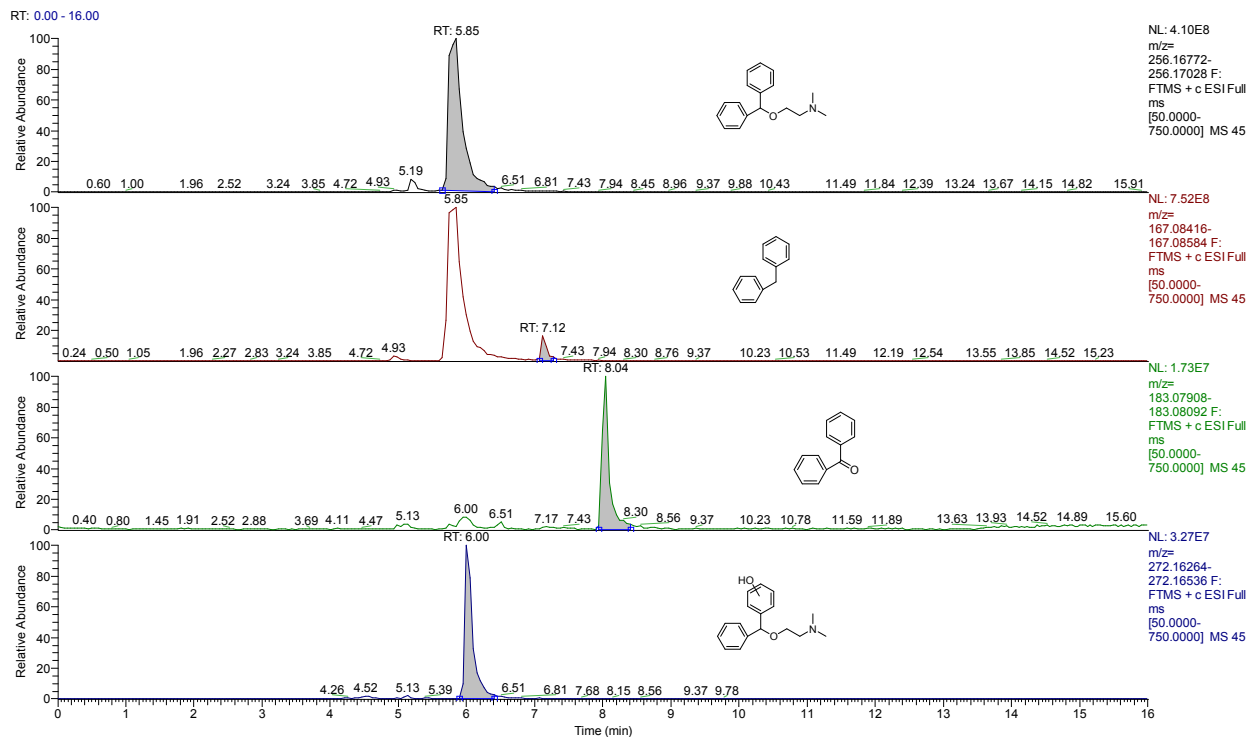
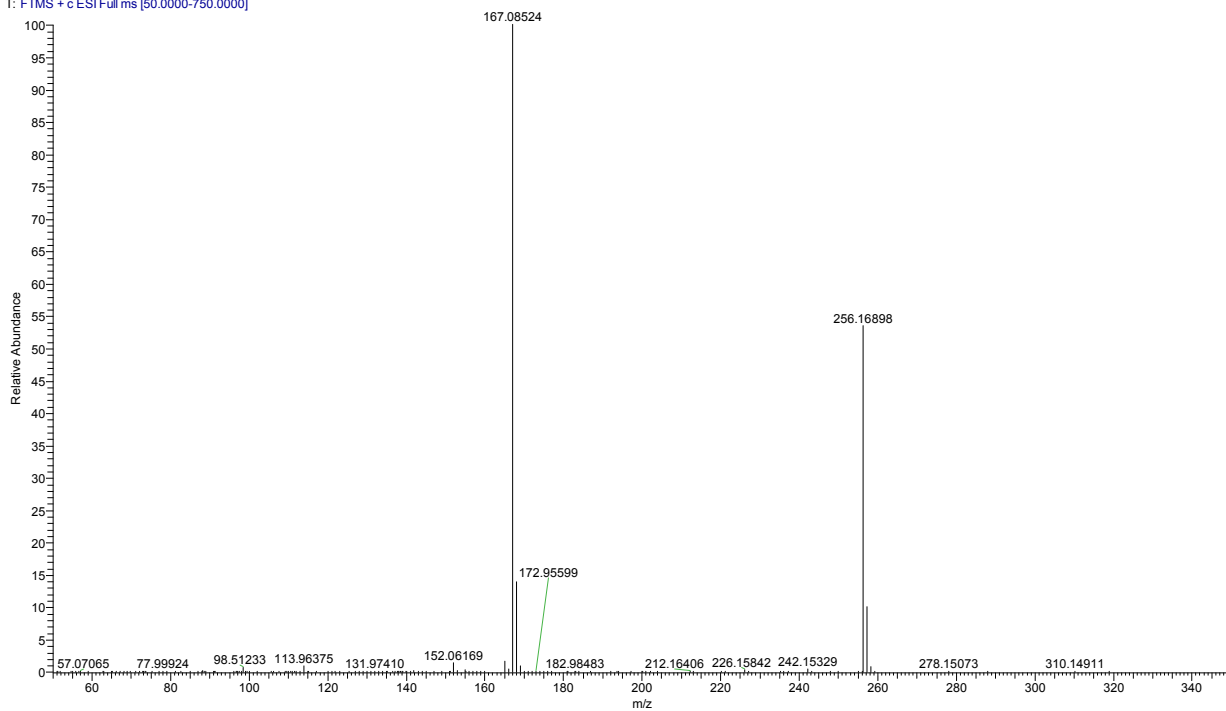


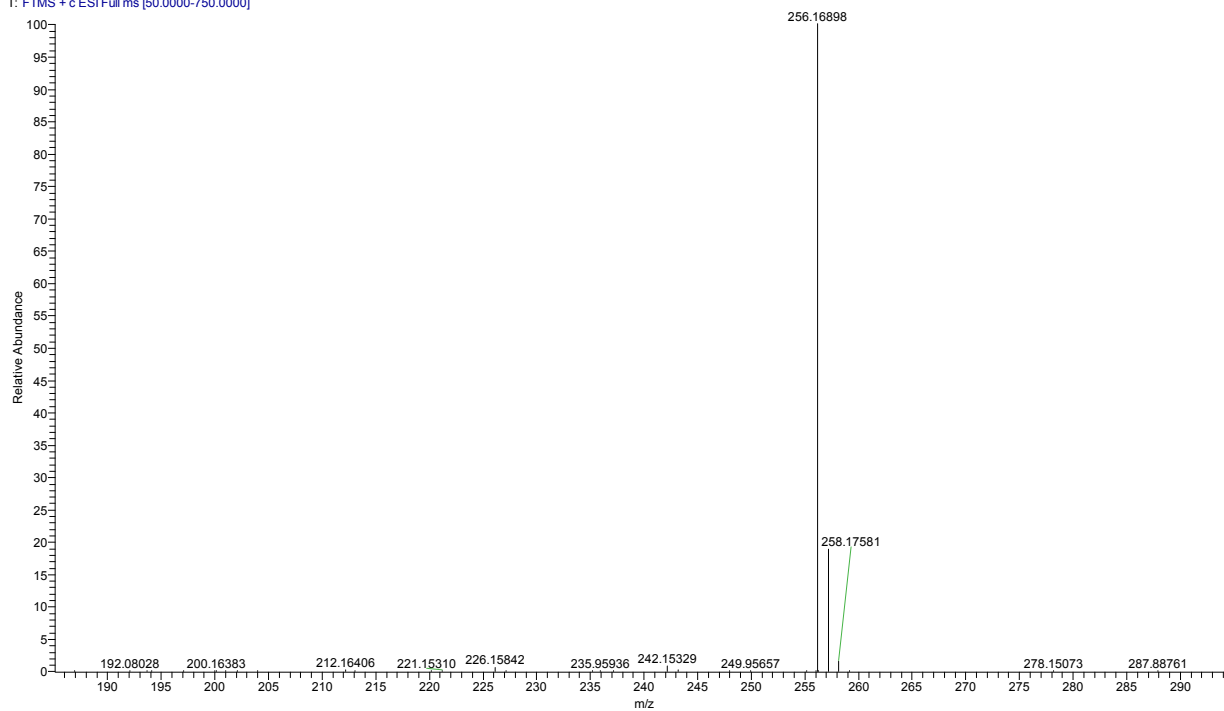
Fig. S4. The UV-Vis reflectance spectra of natural dolomite (a), and estimated band gap from UV-Vis spectra (b).



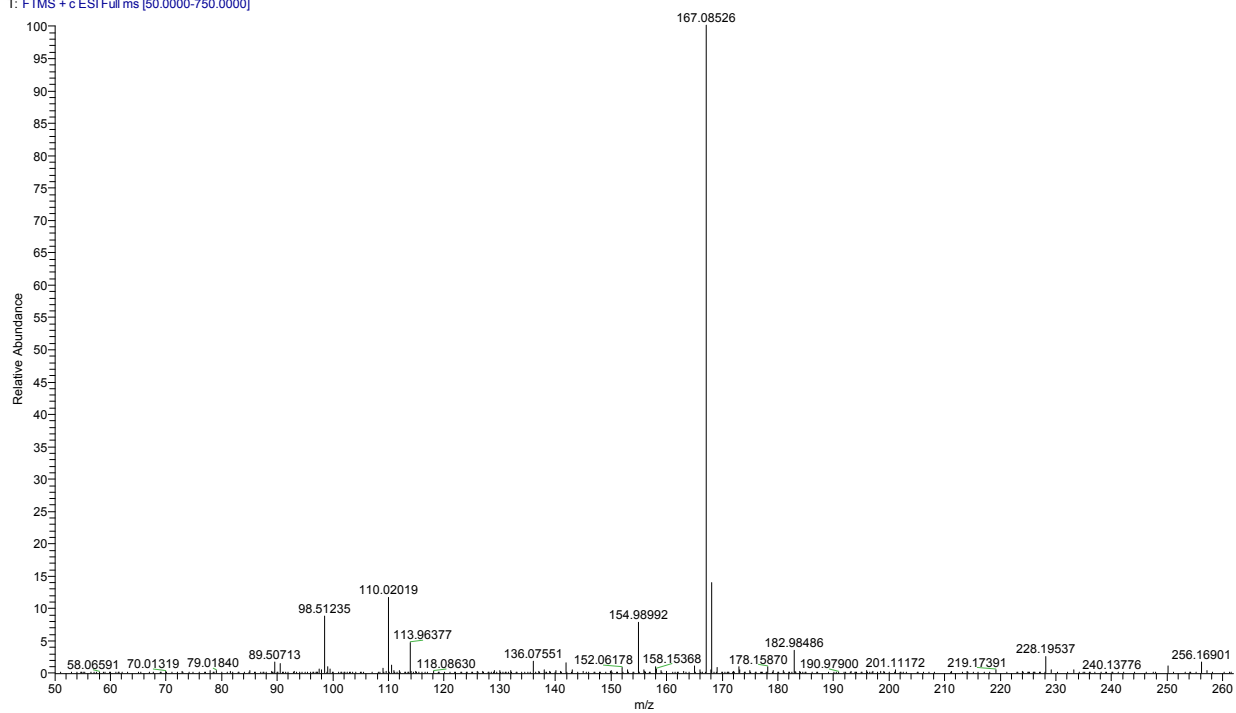
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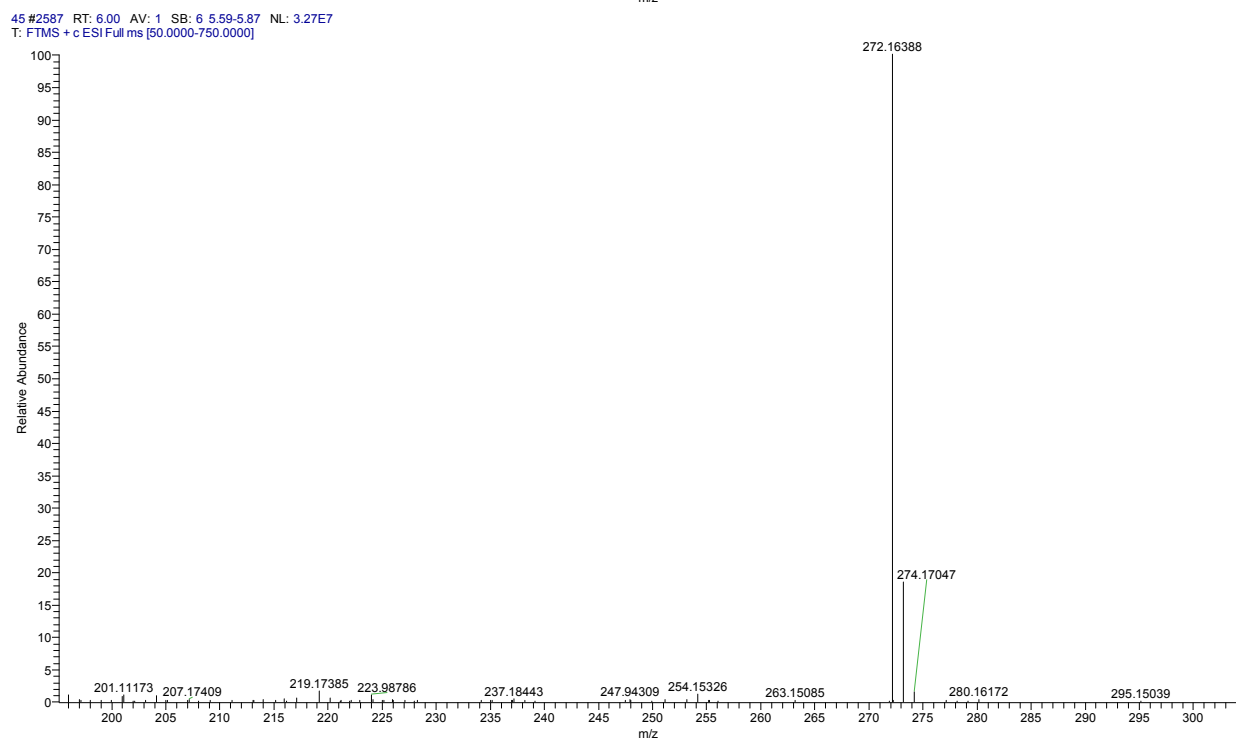
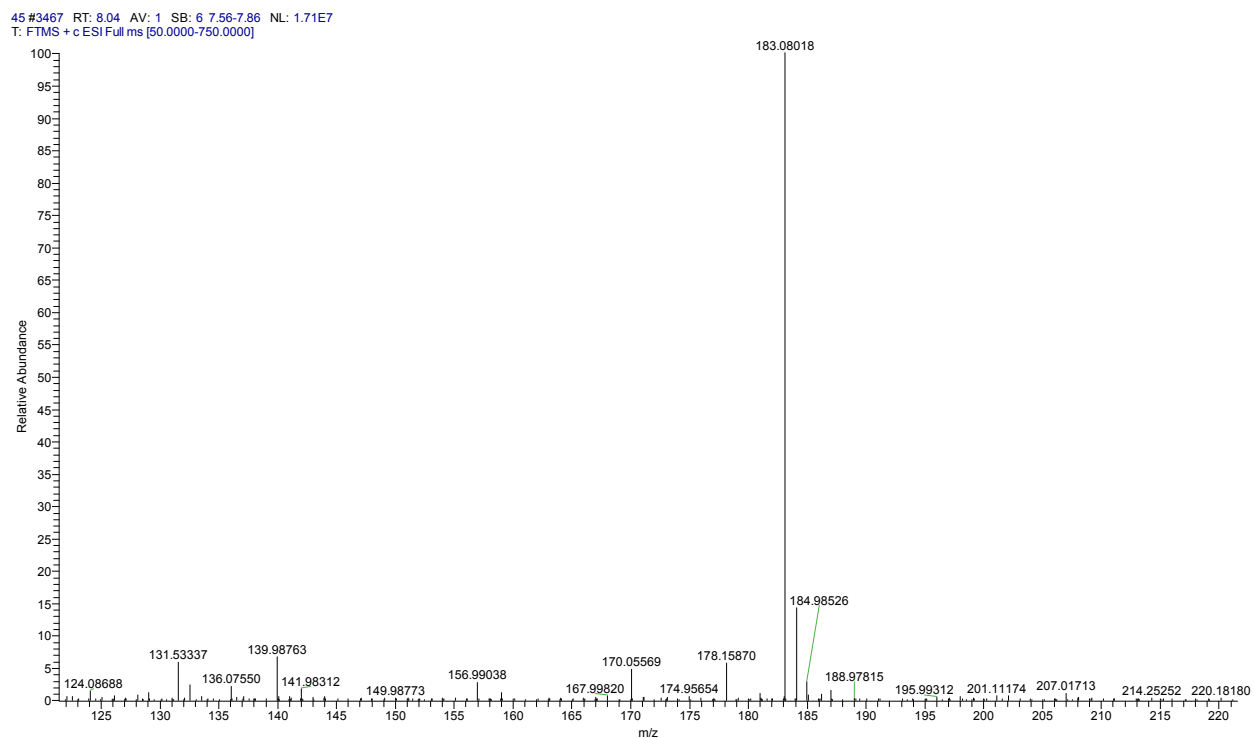


Fig. S5. HRMS spectra of major byproducts after 45 min irradiation in the presence of natural dolomite.