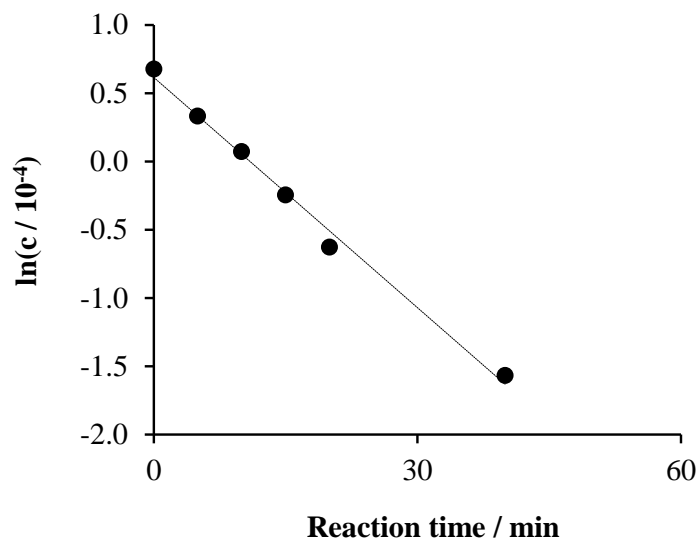
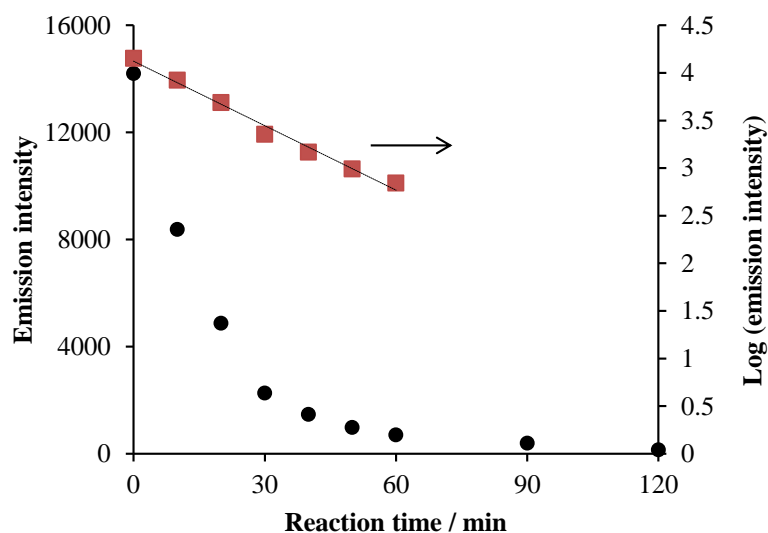


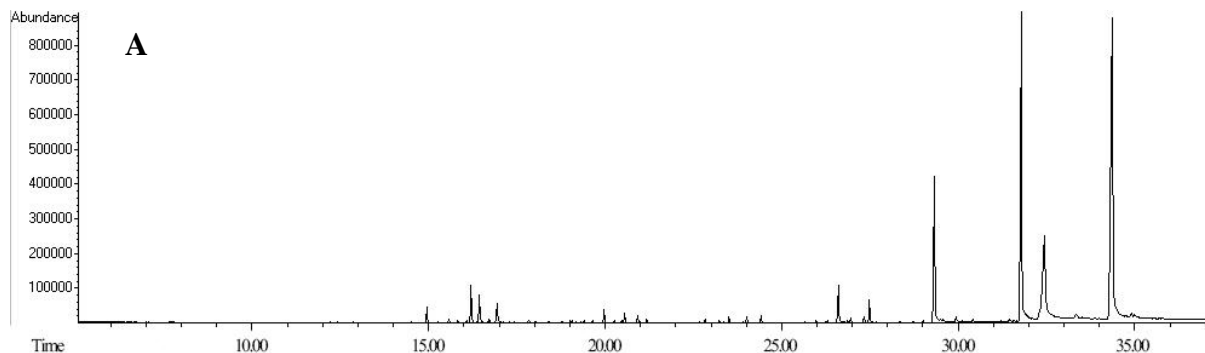
## Supplementary Materials



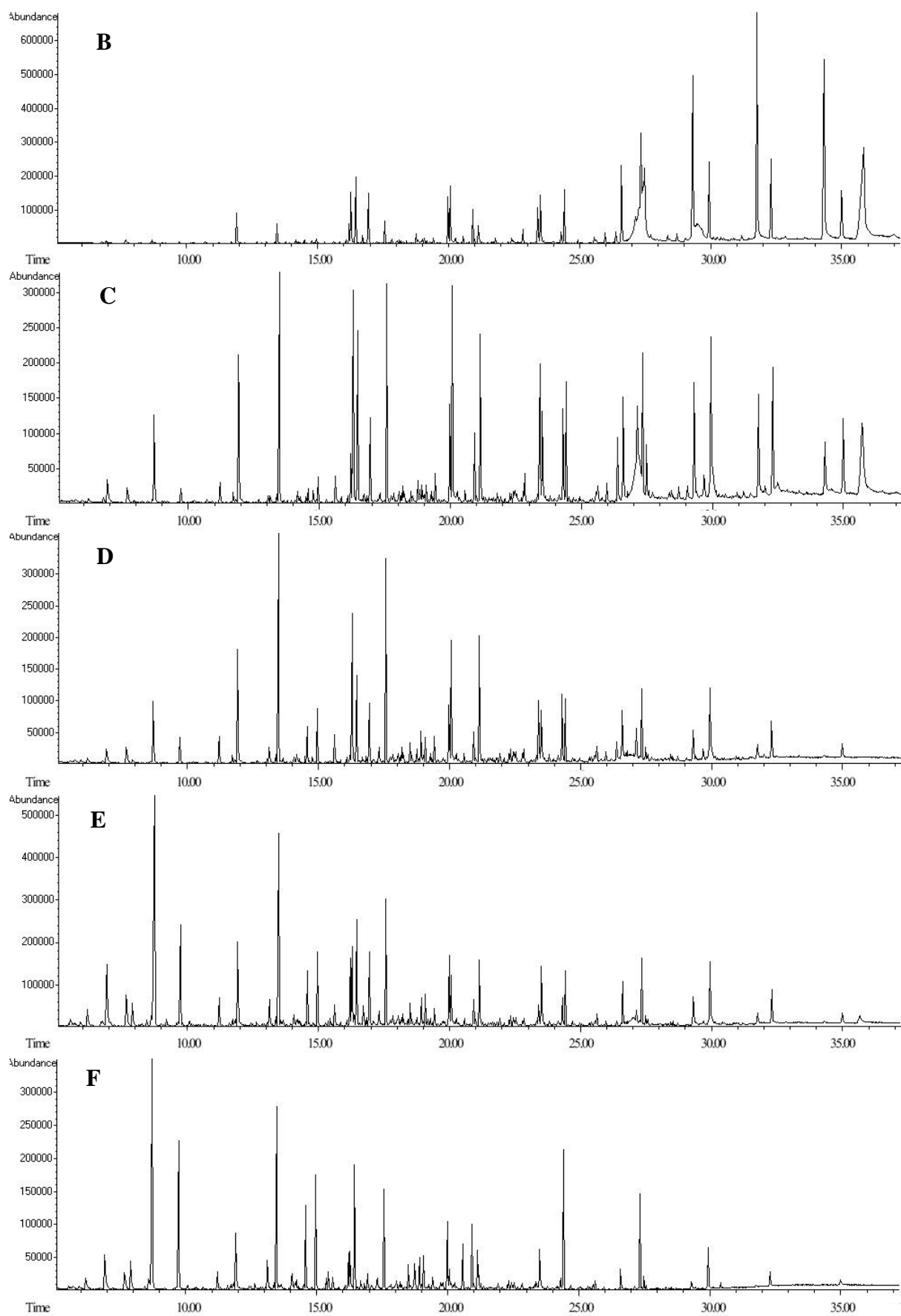
**Figure S1.**  $\ln(c)$  vs. time plot for the starting tensid during the photocatalysis in the aerated system containing  $2 \times 10^{-4} \text{ mol dm}^{-3}$  Triton X-100 and  $1 \text{ g dm}^{-3}$  catalyst ( $\ell = 1 \text{ cm}$ ).



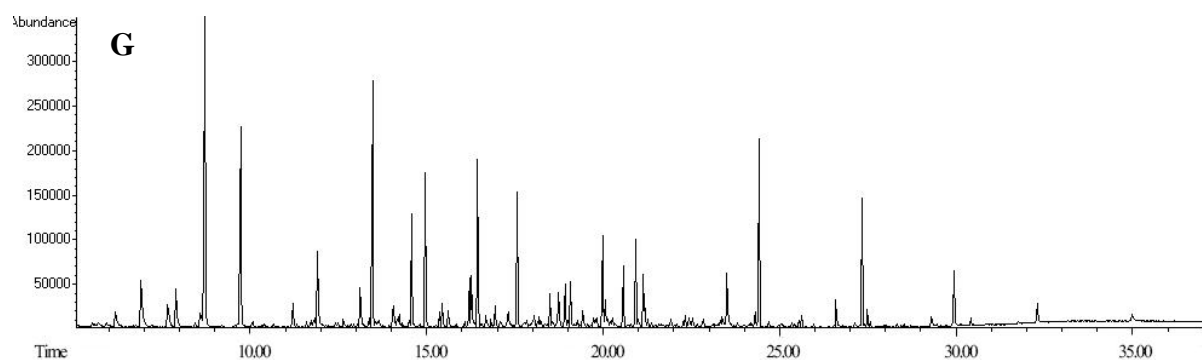
**Figure S2.** The change of the emission intensity (after removal of the suspended  $\text{TiO}_2$ ) during the photocatalysis in the aerated system containing  $2 \times 10^{-4} \text{ mol dm}^{-3}$  Triton X-100 and  $1 \text{ g dm}^{-3}$  catalyst ( $\ell = 1 \text{ cm}$ ,  $\lambda_{\text{ex}} = 277 \text{ nm}$ ,  $\lambda_{\text{em}} = 302 \text{ nm}$ ).



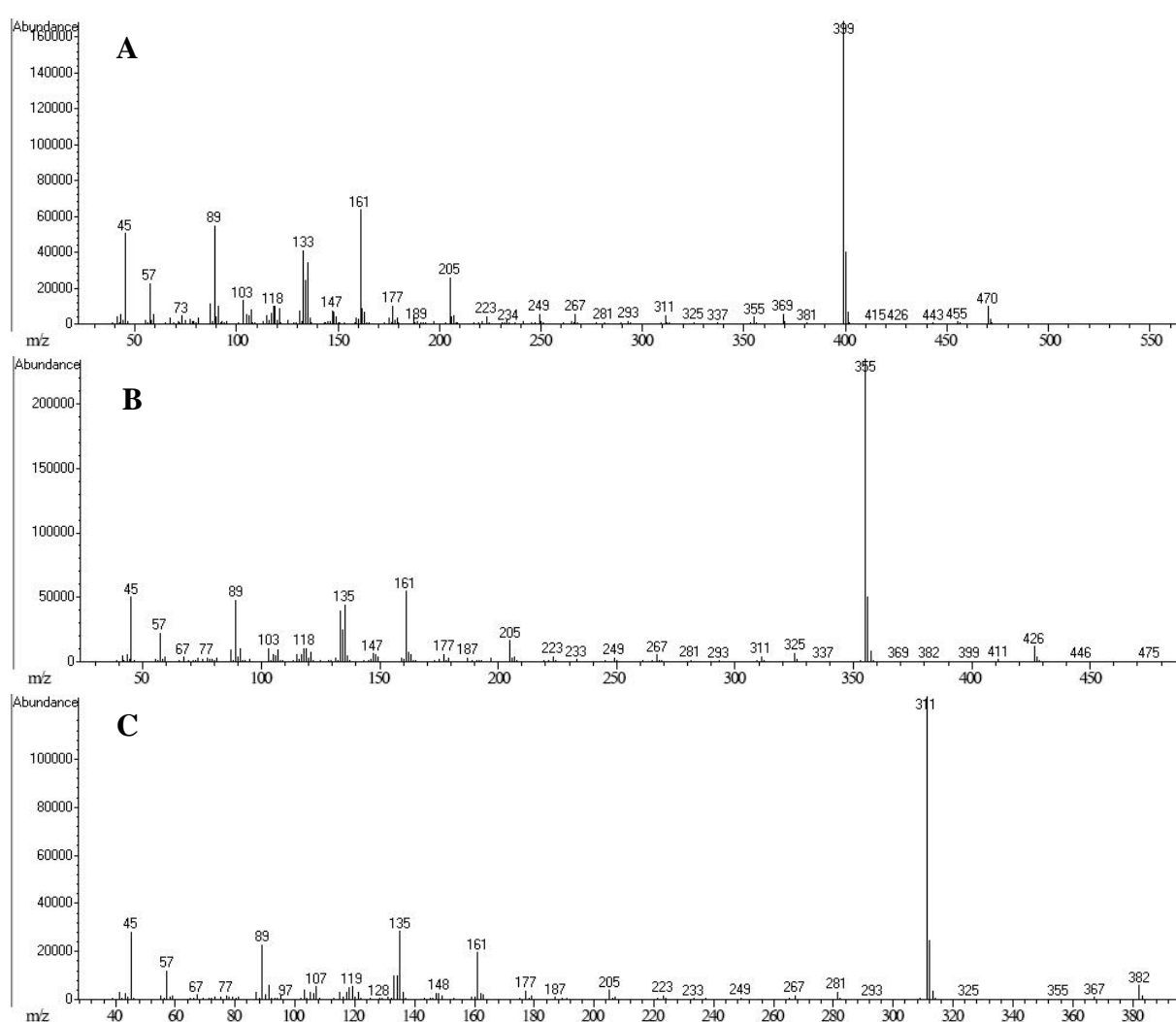
**Figure S3.** *Cont.*



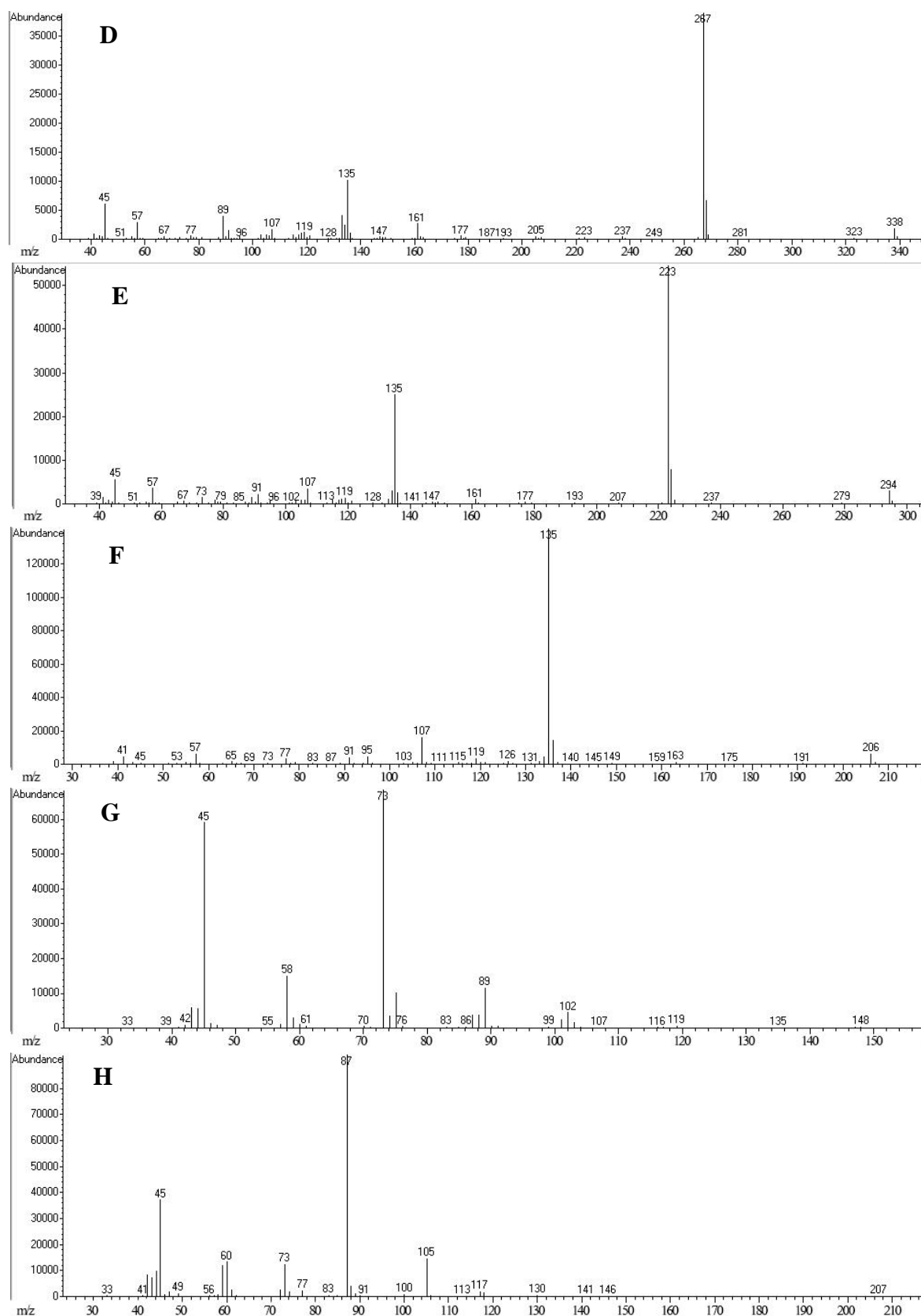
**Figure S3. Cont.**



**Figure S3.** Total ion chromatogram of the components extracted from the reaction mixture after 0 min (**A**); 10 min (**B**); 30 min (**C**); 60 min (**D**); 90 min (**E**); 120 min (**F**); and 180 min; (**G**) irradiation.



**Figure S4. Cont.**



**Figure S4.** Mass spectra of the typical components extracted from the reaction mixture. The corresponding retention times: 34.36 min (A); 31.78 min (B); 29.32 min (C); 26.60 min (D); 23.51 min (E); 16.46 min (F); 11.92 min (G); 9.73 min (H).