

Supplimentary materials

Chromatogrammes and MS Spectrum for the samples

1. Influence of US frequency of the BPA degradation

Work conditions :

-100 mL of synthetic solution of BPA, initial concentration 20.45 mg/L

-US frequencies: 1146 KHz, 864 KHz, 580 KHz

-prelevation time range 0-60 minutes every 15 minutes

-esantion volume: 5 mL

-Intensity 50 W

-temperature around 40°C

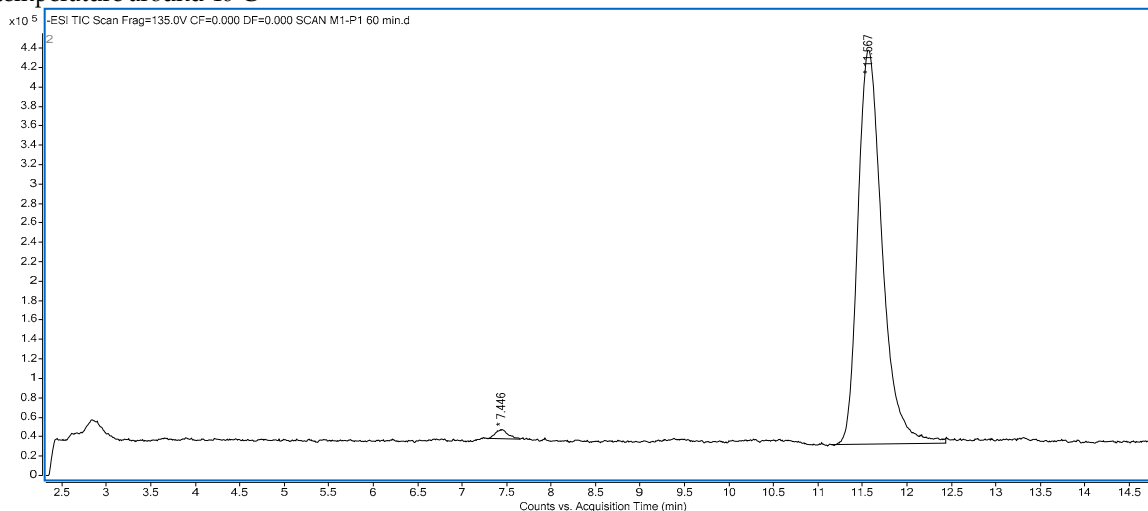


Figure S1. SCAN chromatogram for solution with BPA at frequency 1146 KHz, after 60-minute exposure of US radiation

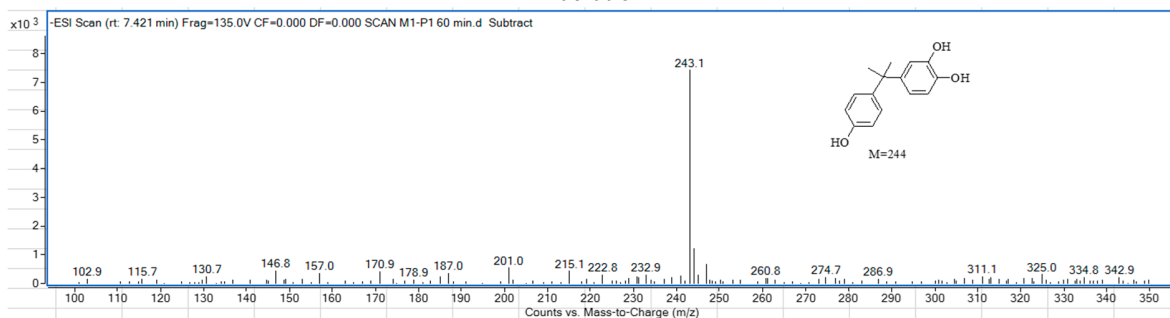


Figure S2. MS spectrum obtained for the chromatographic peak observed at tR = 7.437 min

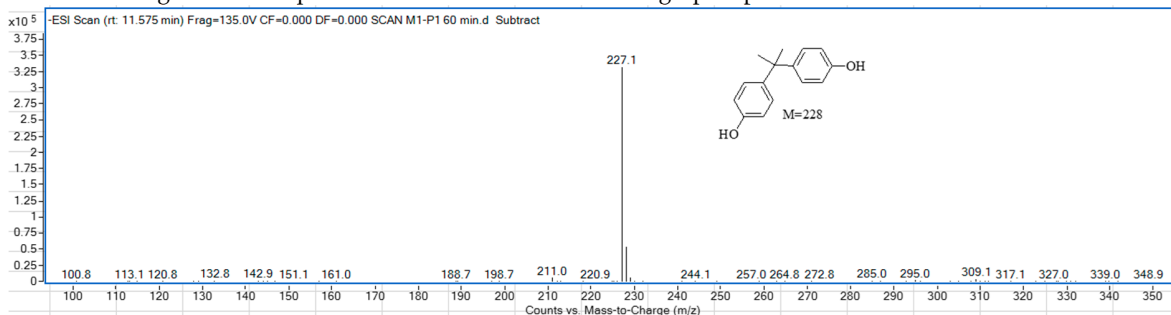


Figure S3. MS spectrum obtained for the chromatographic peak observed at tR = 11.829 min

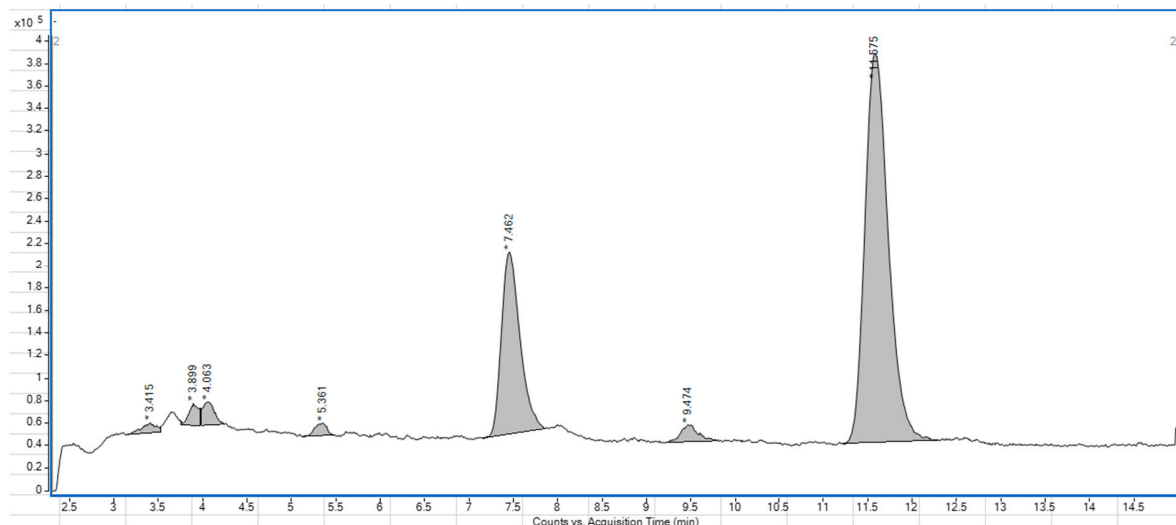


Figure S4. SCAN chromatogram for solution with BPA at frequency 864 KHz, after 60-minute exposure of US radiation

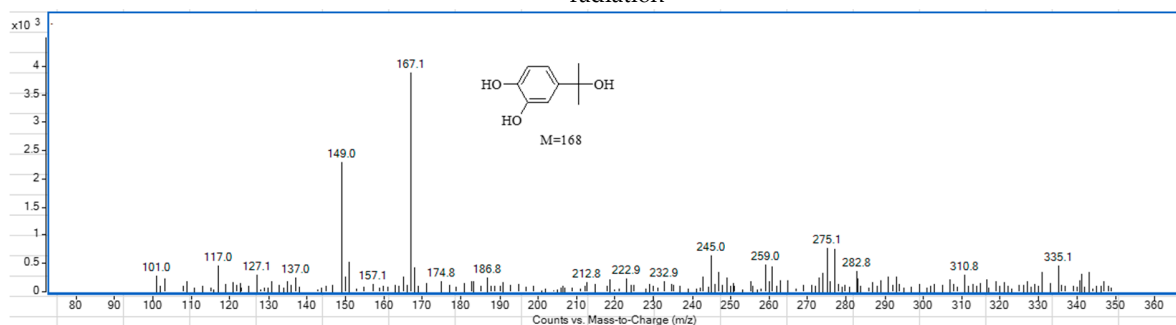


Figure S5. MS spectrum obtained for the chromatographic peak observed at $t_R = 3.374$ min

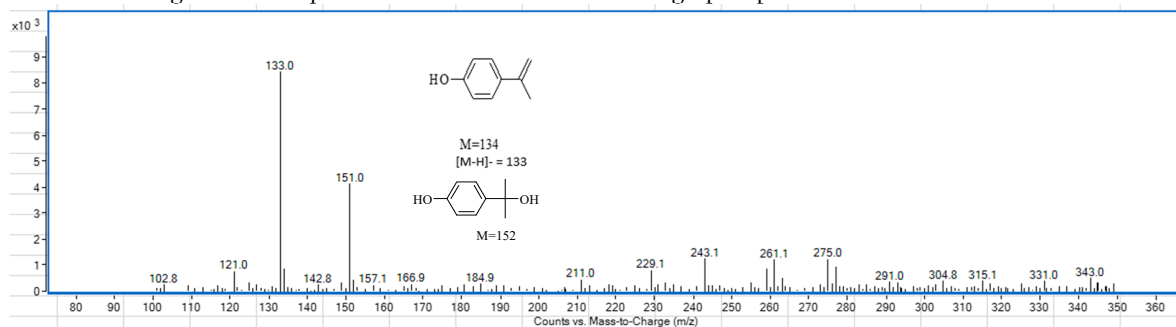


Figure S6. MS spectrum obtained for the chromatographic peak observed at $t_R = 3.89$ min

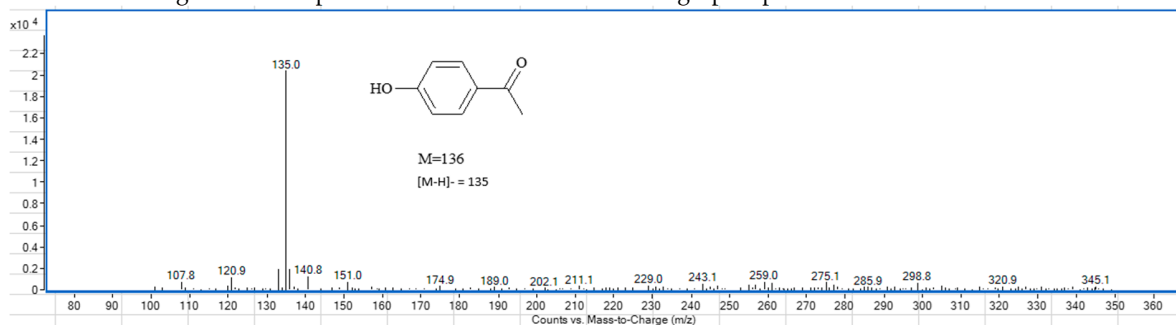
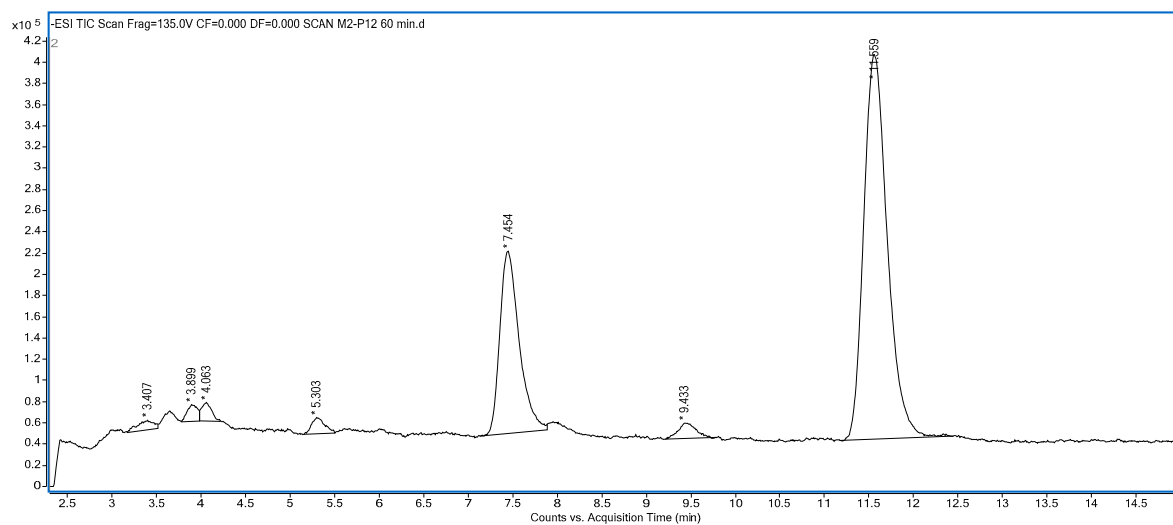
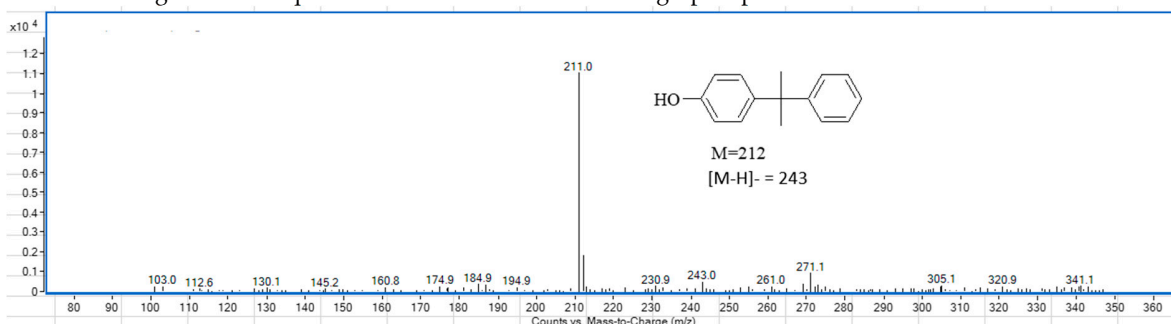
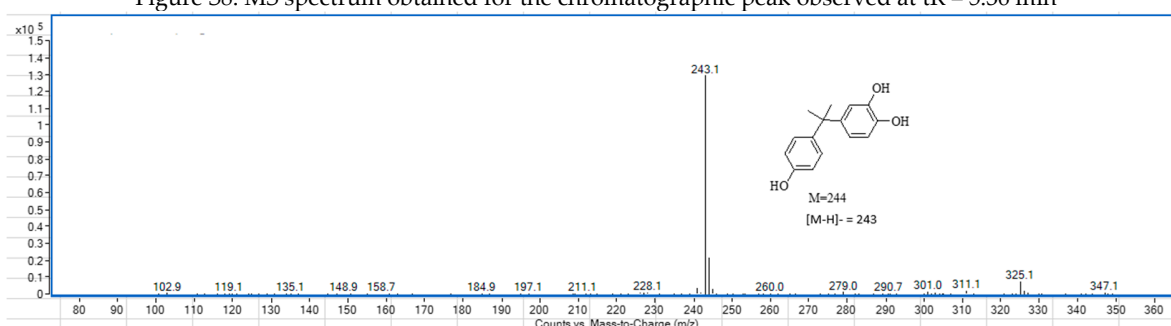
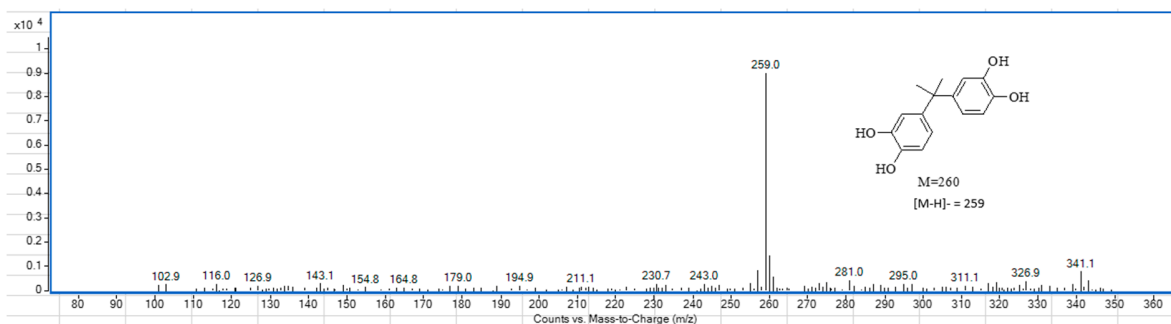


Figure S7. MS spectrum obtained for the chromatographic peak observed at $t_R = 4.06$ min



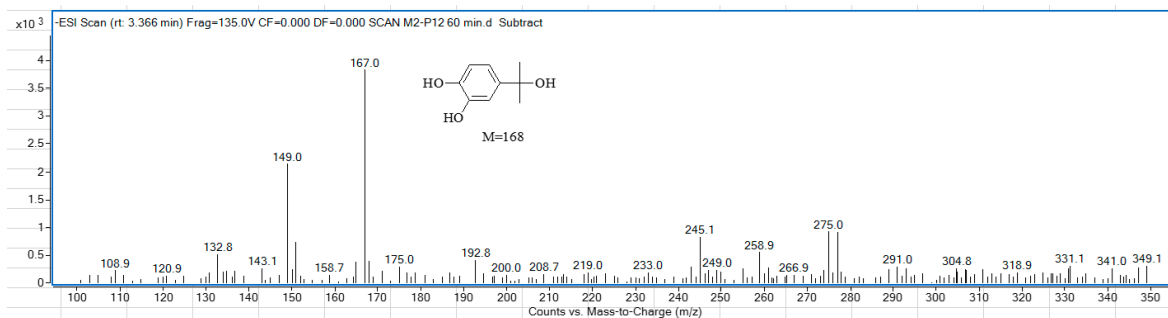


Figure S12. MS spectrum obtained for the chromatographic peak observed at tR = 3.366 min

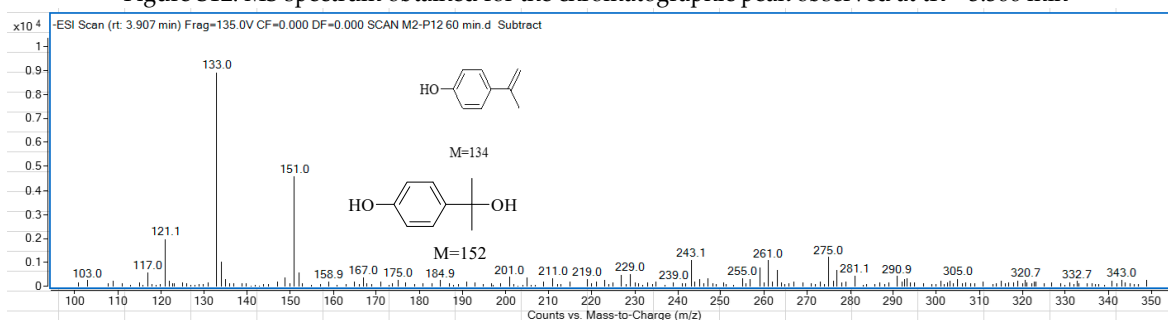


Figure S13. MS spectrum obtained for the chromatographic peak observed at tR = 3.907 min

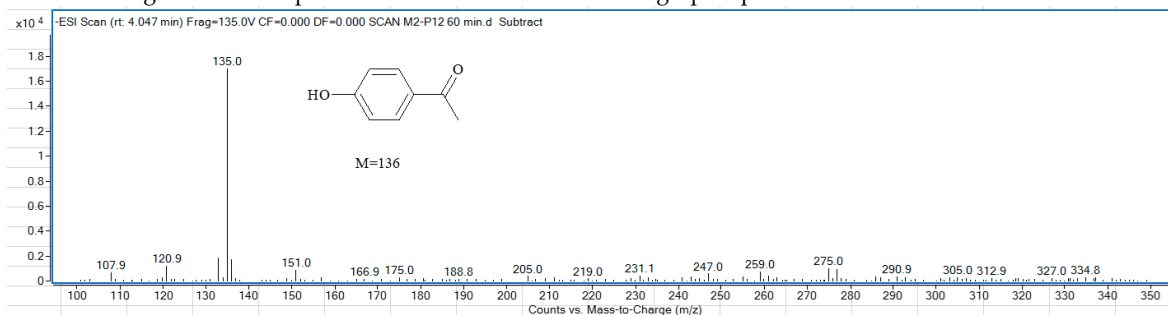


Figure S14. MS spectrum obtained for the chromatographic peak observed at tR = 4.047 min

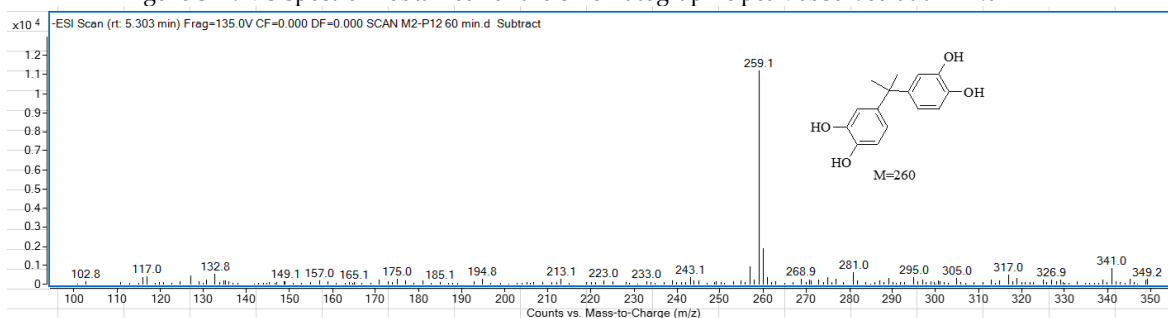


Figure S15. MS spectrum obtained for the chromatographic peak observed at tR = 5.303 min

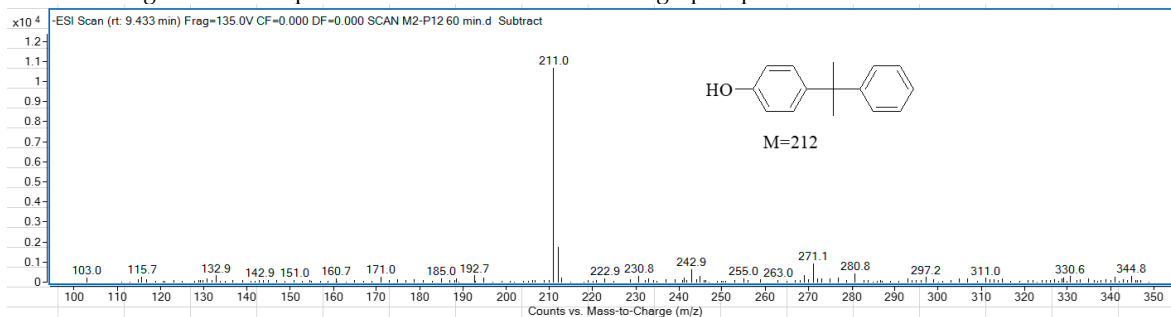


Figure S16. MS spectrum obtained for the chromatographic peak observed at tR = 9.433 min

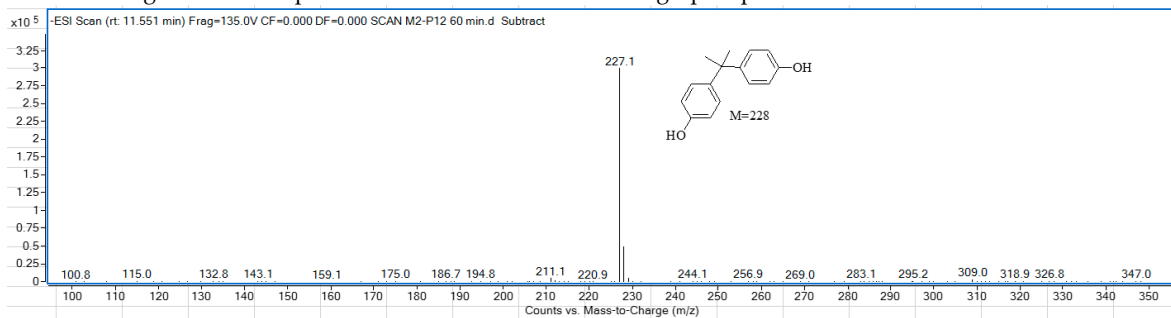


Figure S17. MS spectrum obtained for the chromatographic peak observed at tR =11.551 min

2. Influence of US at frequency of 580 KHz and CCl₄ of the BPA degradation

Work conditions :

-100 mL of synthetic solution of BPA, initial concentration 20.17 mg/L

-US frequencies: 580 KHz

-dose of CCl₄: 6 µL, 12 µL și 25 µL/100 mL of sample

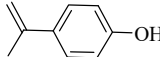
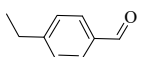
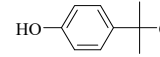
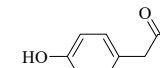
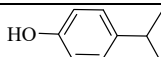
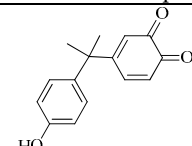
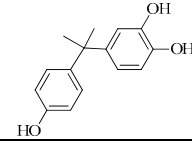
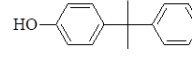
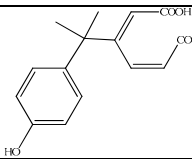
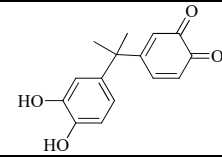
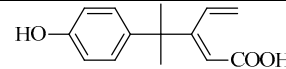
-prelevation time after 15 minutes

-extraction volume: 5 mL

-Intensity 50 W

-temperature around 40°C

Table S1. The degradation compounds of BPA, resulted in presence of CCl₄, after 15 minutes of exposure.

Nr. Crt.	tR	Molecular mass	m/z	The propose molecular structure
1	3.727	134	133	 or 
2	3.727	152	151	 or 
3	3.883	136	135	
4	4.556	228	227	Unidentified compound
5	5.721	242	241	
6	7.101	244	243.1	
7	8.980	212	211	
8	10.187	276	275	
9	10.269	258	257	
10	12.166	232	231.1	

3. **Influence of US at frequency of 580 KHz and $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$, with initial concentration 0,1 mg/L, of the BPA degradation**

Work conditions:

-100 mL of synthetic solution of BPA, initial concentration 20.32 mg/L

-US frequencies: 580 KHz

-dose of FS: 0/100 mL (P11), 5 mL /95 mL (P12) initial solution and 20 mL /80mL (P13) of initial solution.

-prelevation time after 15 minutes of exposure

-esantion volume: 5 mL

-Intensity 50 W

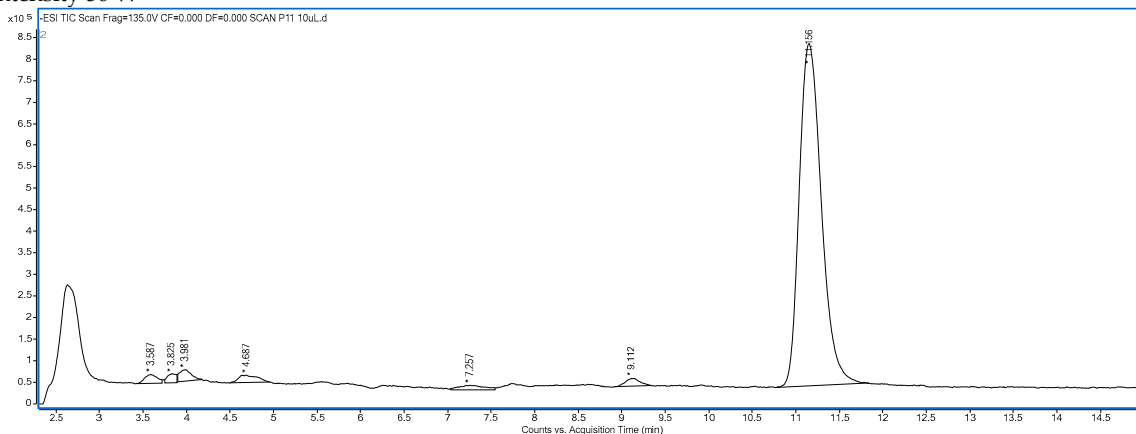


Figure S18. SCAN chromatogram obtained for solution with BPA at frequency 580 KHz and PS 0/100 mL of initial solution after 15 minutes exposure of US radiation

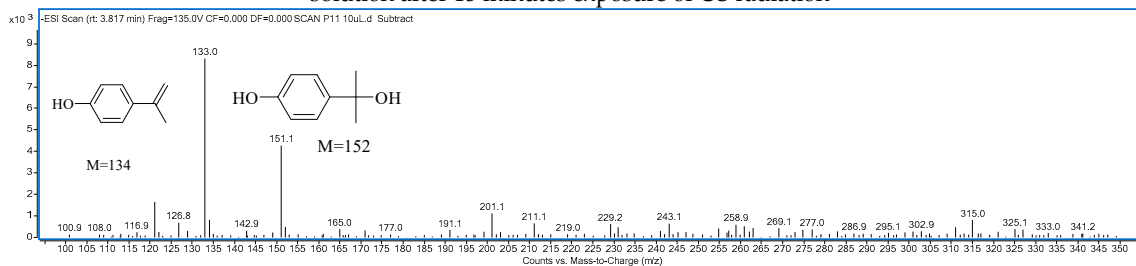


Figure S19. MS spectrum obtained for the chromatographic peak observed at $t_R = 3.81$ min

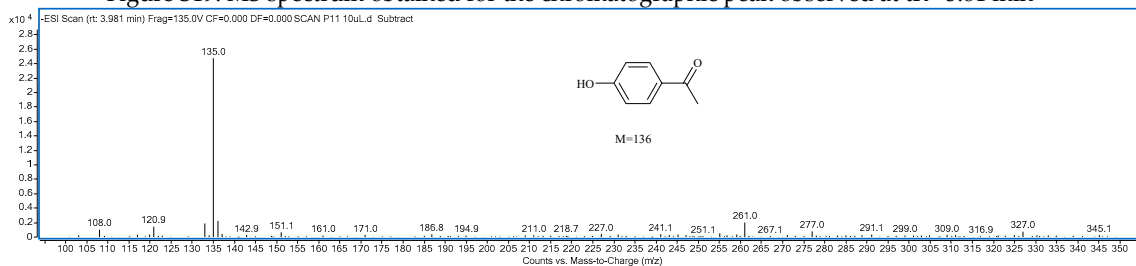
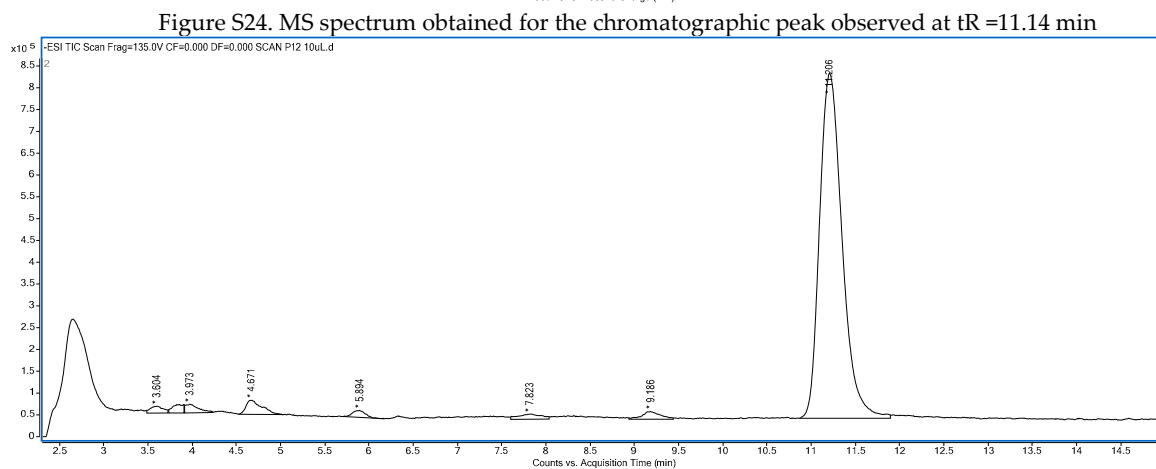
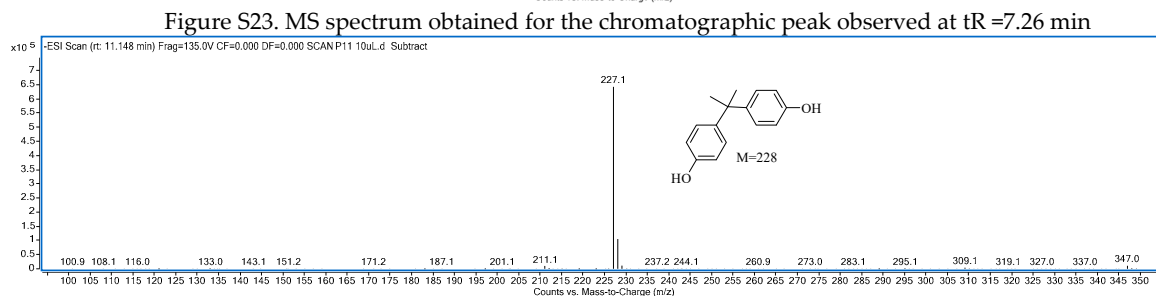
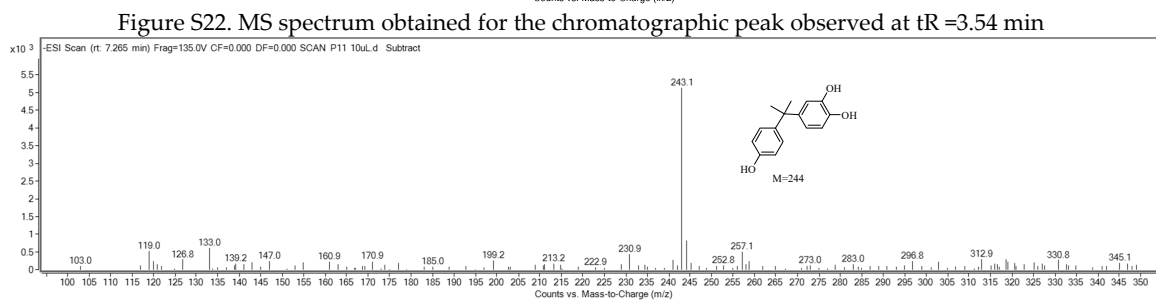
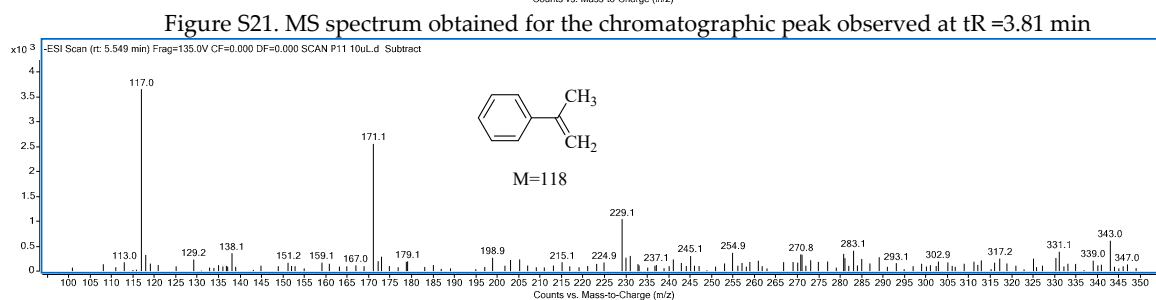
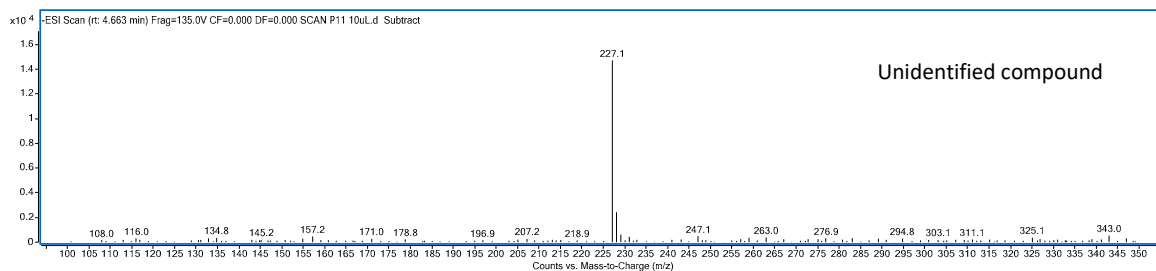


Figure S20. MS spectrum obtained for the chromatographic peak observed at $t_R = 3.98$ min



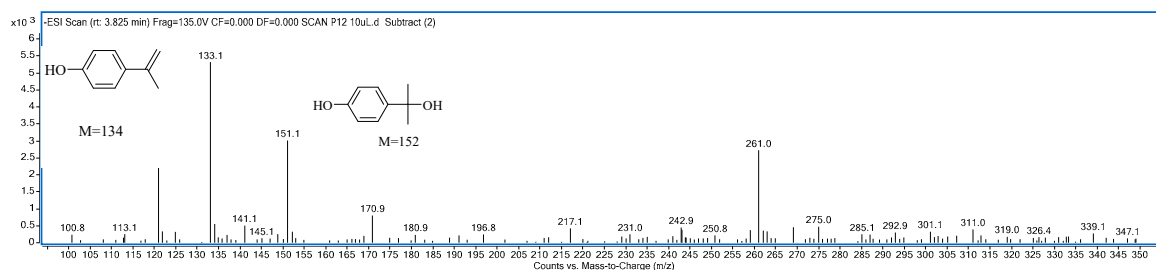


Figure S26. MS spectrum obtained for the chromatographic peak observed at t_R = 3.82 min

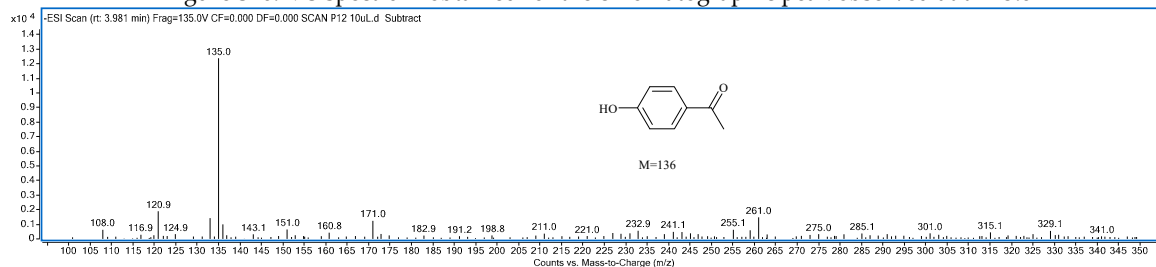


Figure S27. MS spectrum obtained for the chromatographic peak observed at t_R = 3.98 min

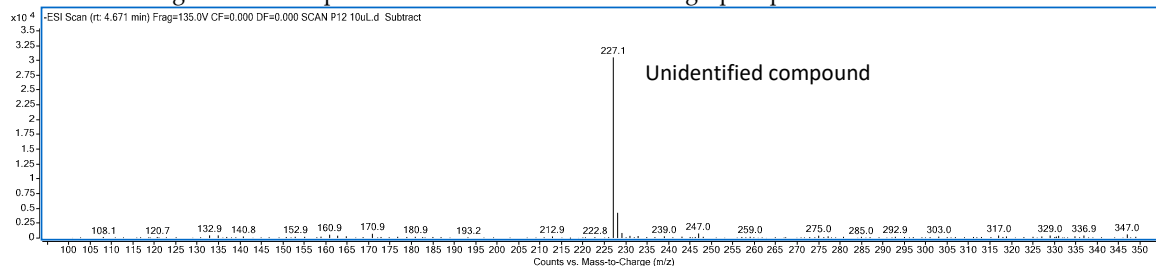


Figure S28. MS spectrum obtained for the chromatographic peak observed at t_R = 4.67 min

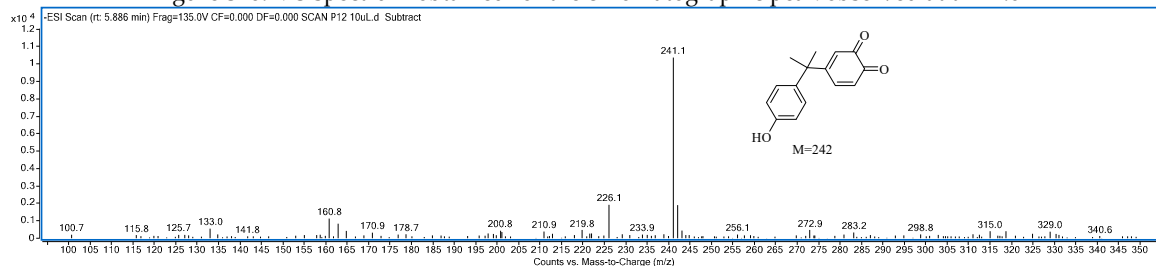


Figure S29. MS spectrum obtained for the chromatographic peak observed at t_R = 5.88 min

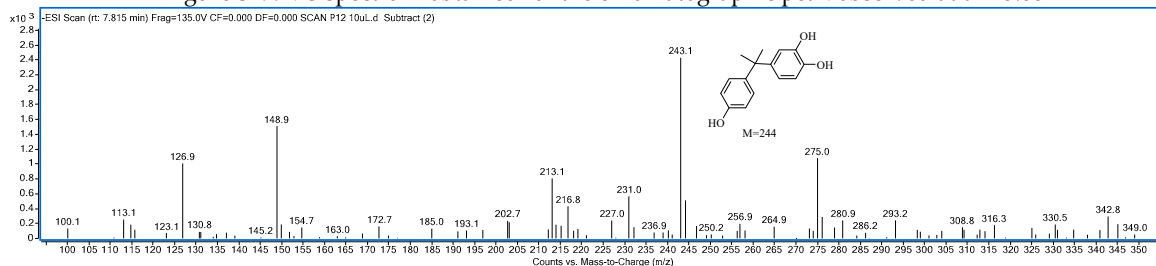


Figure S30. MS spectrum obtained for the chromatographic peak observed at t_R = 7.81 min

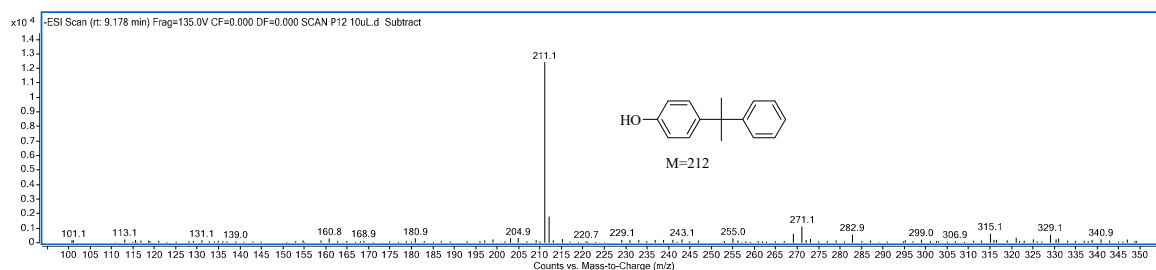


Figure S31. MS spectrum obtained for the chromatographic peak observed at tR =9.17 min

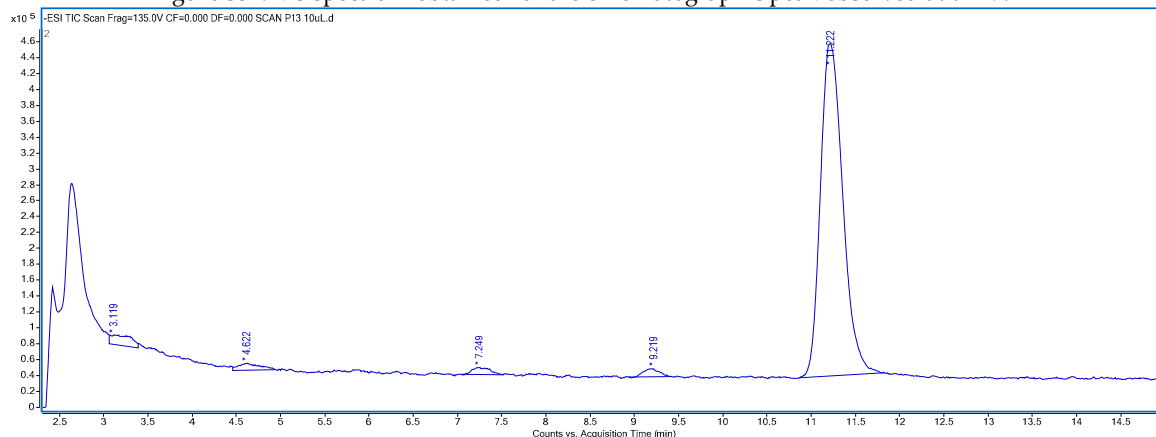


Figure S32. SCAN chromatogram obtained for solution with BPA at frequency 580 KHz and PS 20/80 mL of initial solution after 15 minutes exposure of US radiation

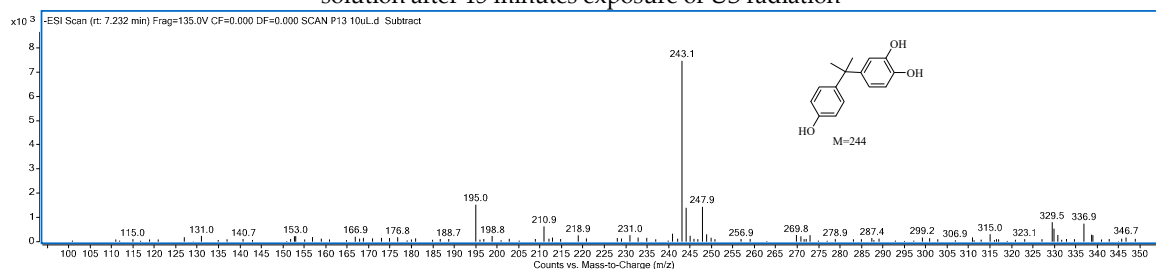


Figure S33. MS spectrum obtained for the chromatographic peak observed at tR =7.22 min

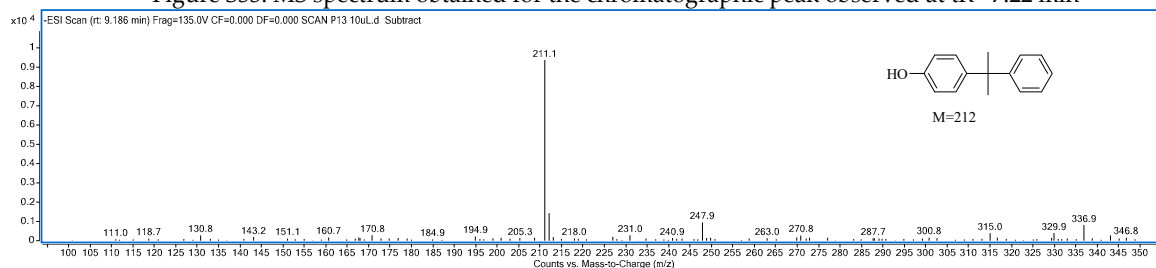


Figure S34. MS spectrum obtained for the chromatographic peak observed at tR =9.18 min

4. Influence of US at frequency 580 KHz and EAC, of the BPA degradation

Work conditions :

-100 mL of synthetic solution of BPA, initial concentration 20.16 mg/L

-US frequencies: 580 KHz

-dose of for EAC with doses of 0.1/100 mL(P21), 0.2/100 mL (P22), 0.3 mL/100 mL (P23) initial solution,.

-prelevation time after 15 minutes of exposure

-esantion volume: 5 mL

-Intensity 50 W

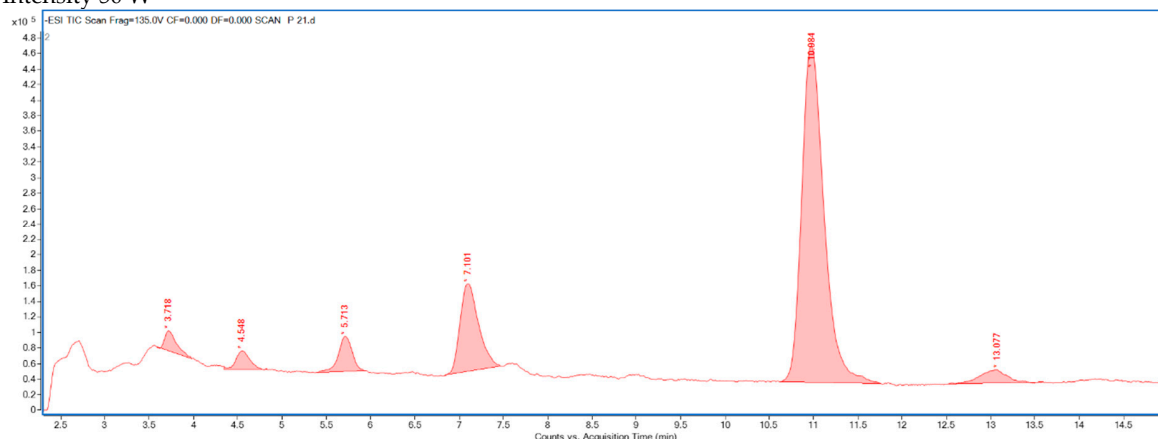


Figure S35. SCAN chromatogram obtained for solution with BPA at frequency 580 KHz and EAC 0.1/100 mL of initial solution after 15 minutes exposure of US radiation

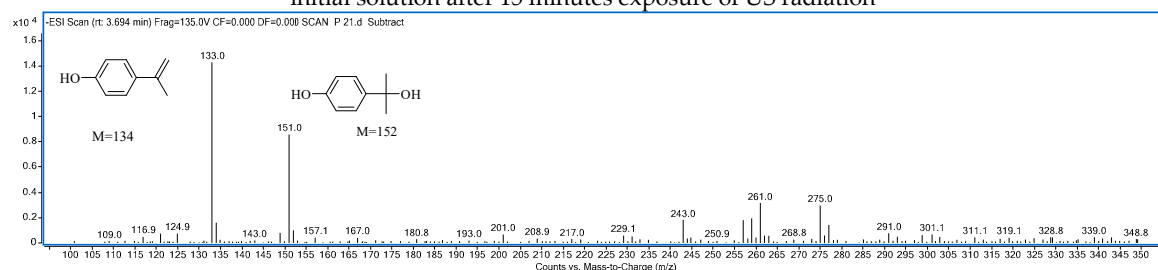


Figure S36. MS spectrum obtained for the chromatographic peak observed at t_R=3.69 min

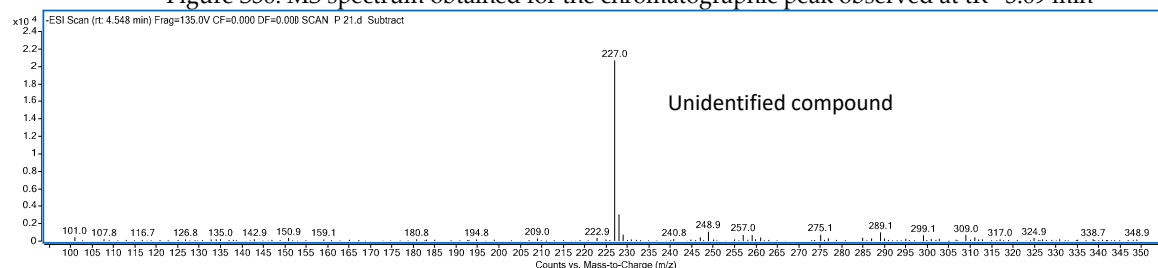


Figure S37. MS spectrum obtained for the chromatographic peak observed at t_R=4.54 min

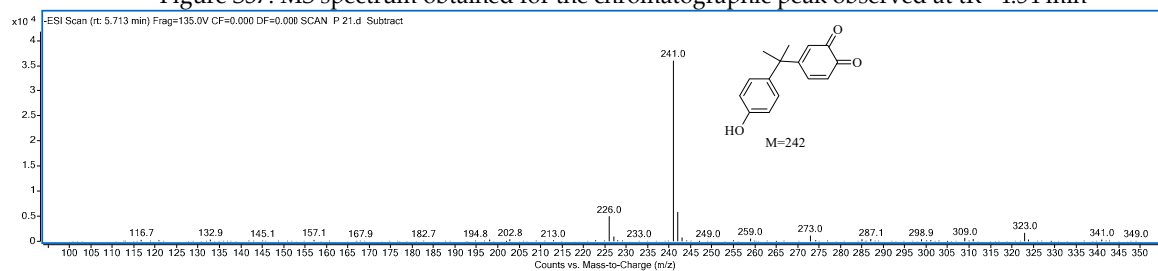


Figure S38. MS spectrum obtained for the chromatographic peak observed at t_R=5.71 min

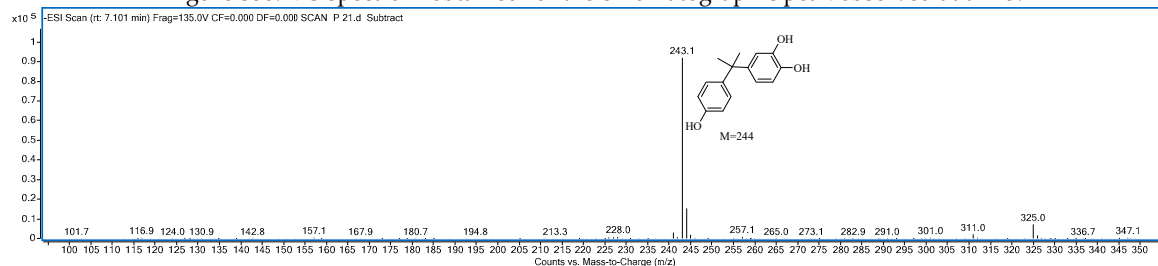


Figure S39. MS spectrum obtained for the chromatographic peak observed at tR =7.10 min

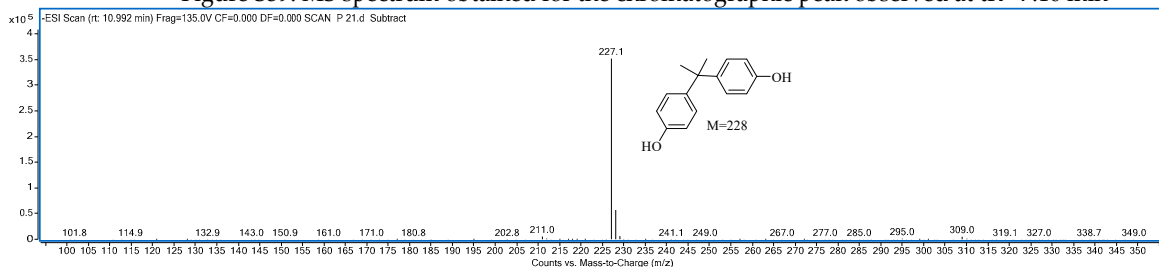


Figure S40. MS spectrum obtained for the chromatographic peak observed at tR =10.99 min

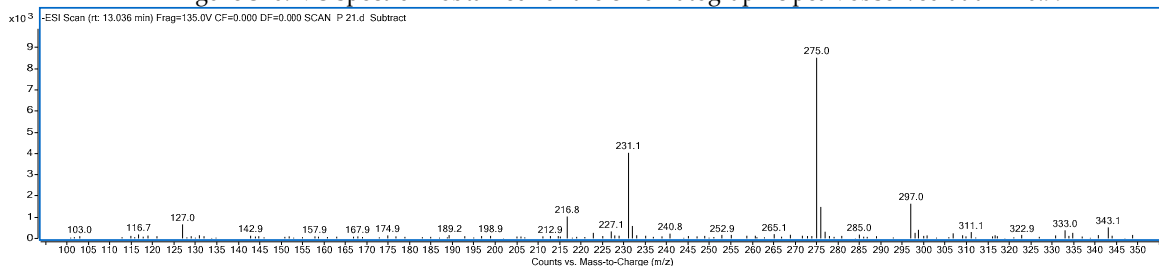


Figure S41. MS spectrum obtained for the chromatographic peak observed at tR =13.04 min

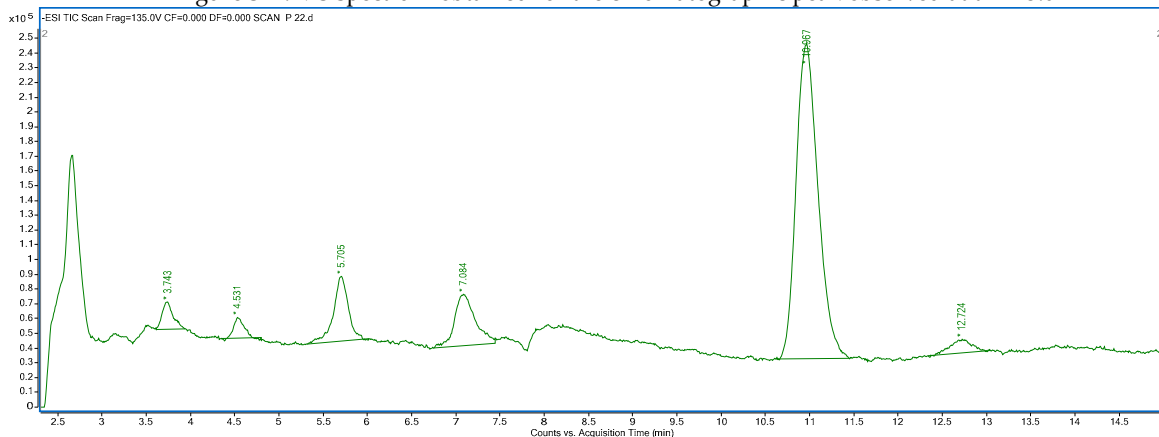


Figure S42. SCAN chromatogram obtained for solution with BPA at frequency 580 KHz and EAC 0.2/100 mL of initial solution after 15 minutes exposure of US radiation

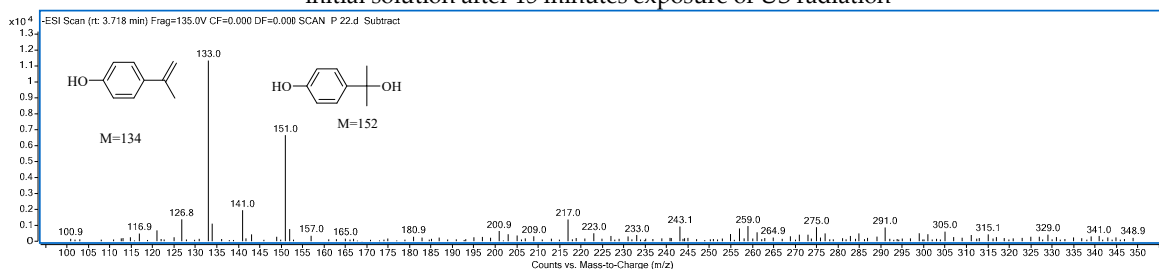


Figure S43. MS spectrum obtained for the chromatographic peak observed at tR =3.72 min

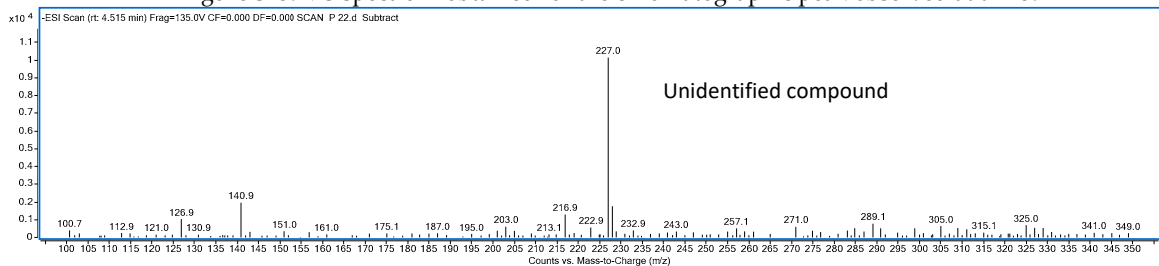


Figure S44. MS spectrum obtained for the chromatographic peak observed at tR =4.51 min

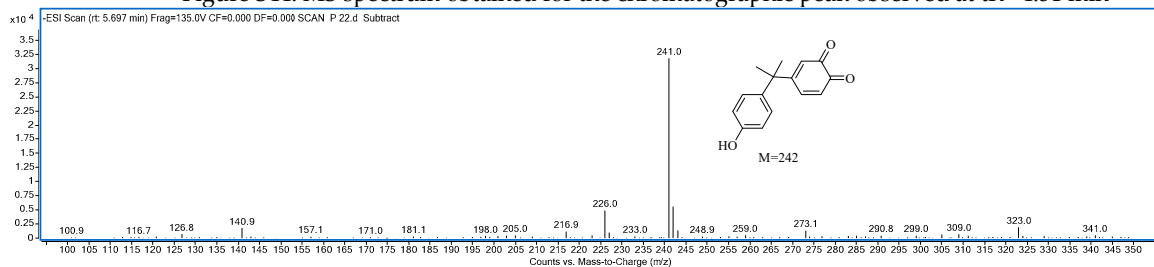


Figure S45. MS spectrum obtained for the chromatographic peak observed at tR =5.69 min

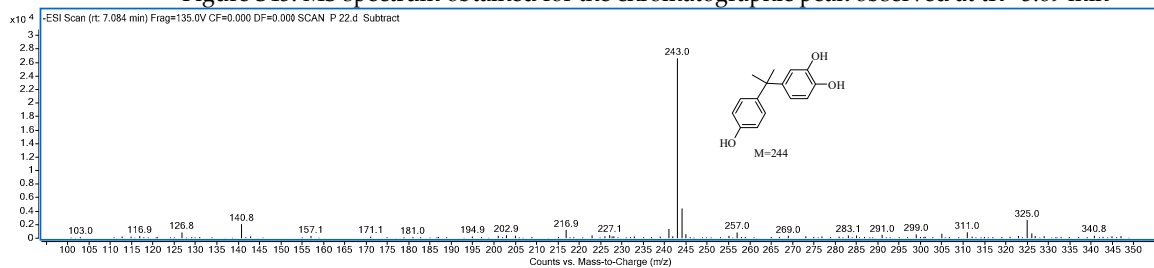


Figure S46. MS spectrum obtained for the chromatographic peak observed at tR =7.08 min

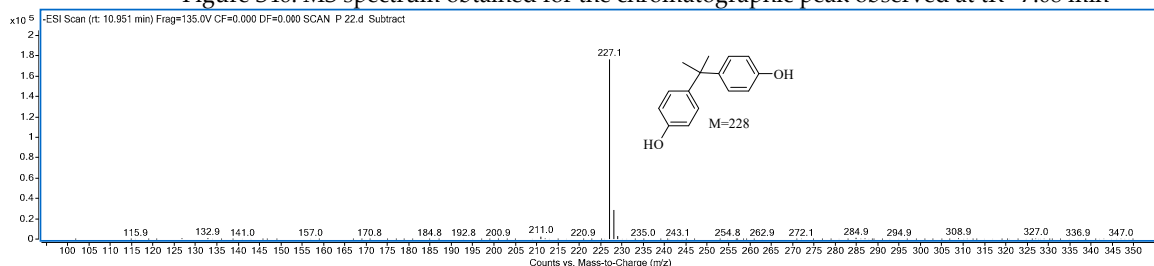


Figure S47. MS spectrum obtained for the chromatographic peak observed at tR =10.95 min

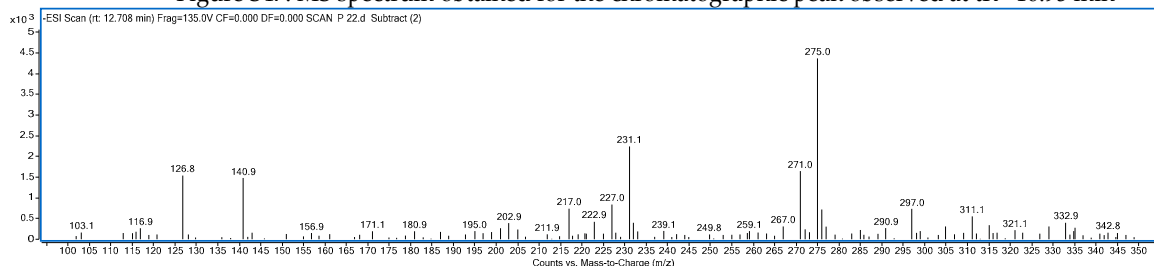


Figure S48 MS spectrum obtained for the chromatographic peak observed at tR =12.71 min

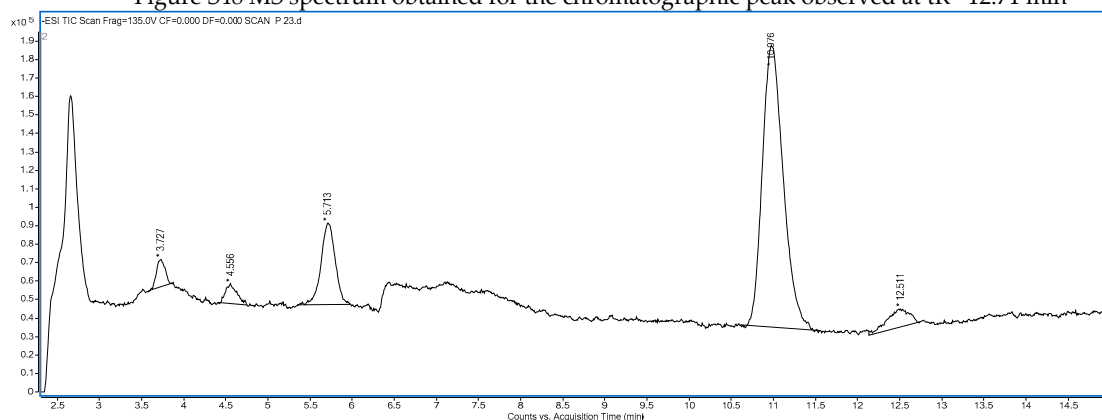


Figure S49. SCAN chromatogram obtained for solution with BPA at frequency 580 KHz and EAC 0.3/100 mL of initial solution after 15 minutes exposure of US radiation

