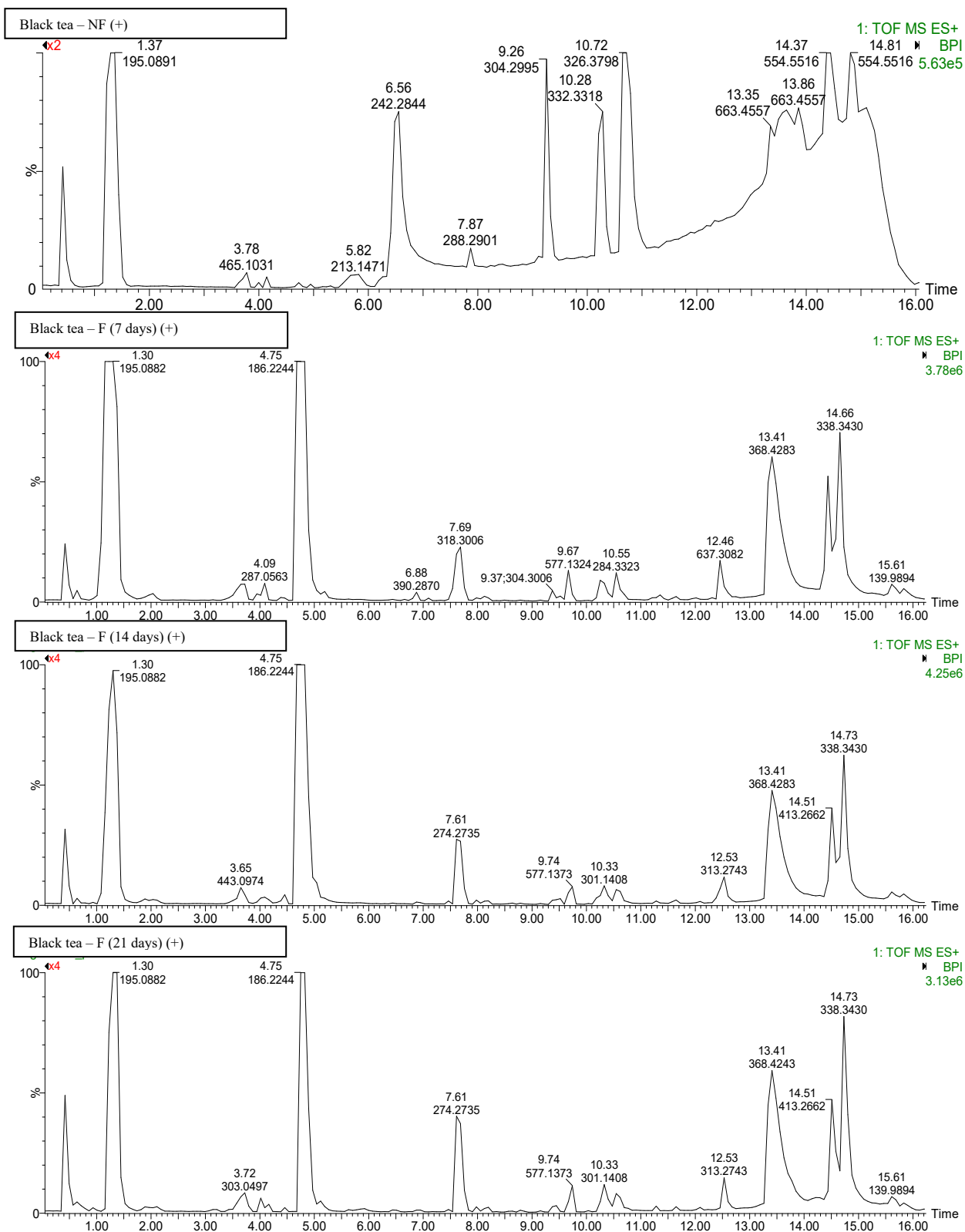
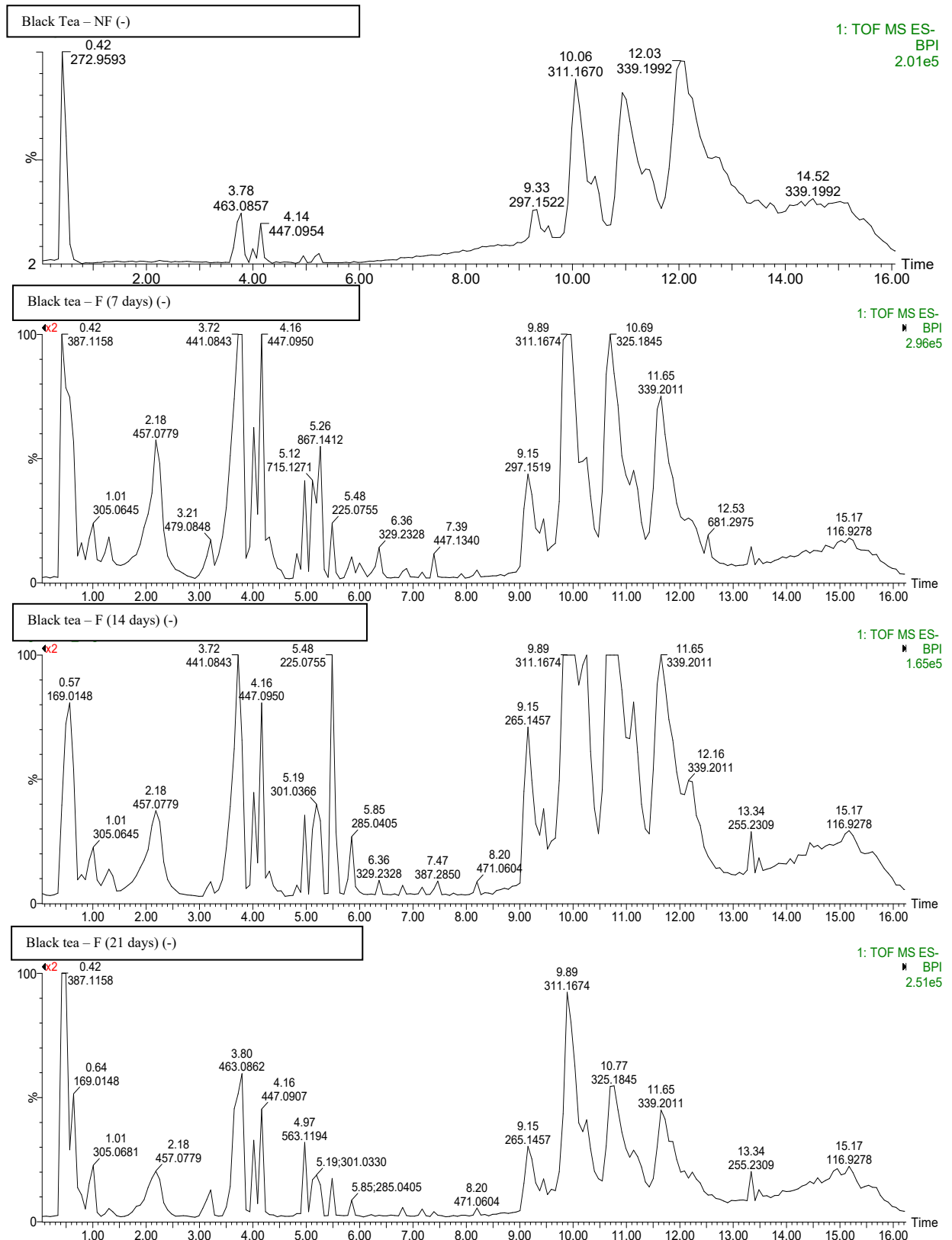


## Supplementary material

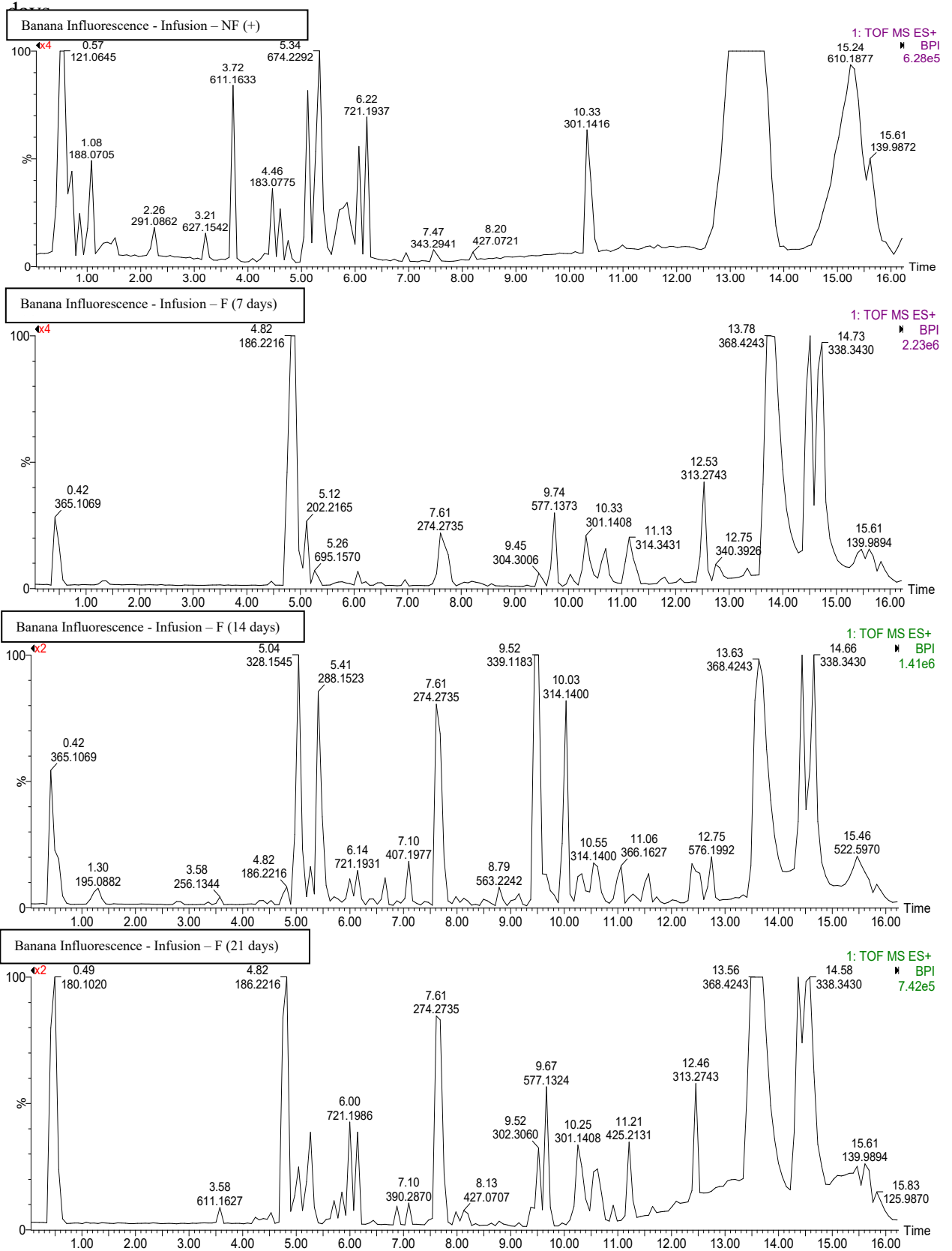
**Figure S1:** Chromatograms obtained in positive mode by UPLC-ESI-MS/MS for black tea infusion (*Camellia sinensis*) and fermented extracts in 7, 14 and 21 days.



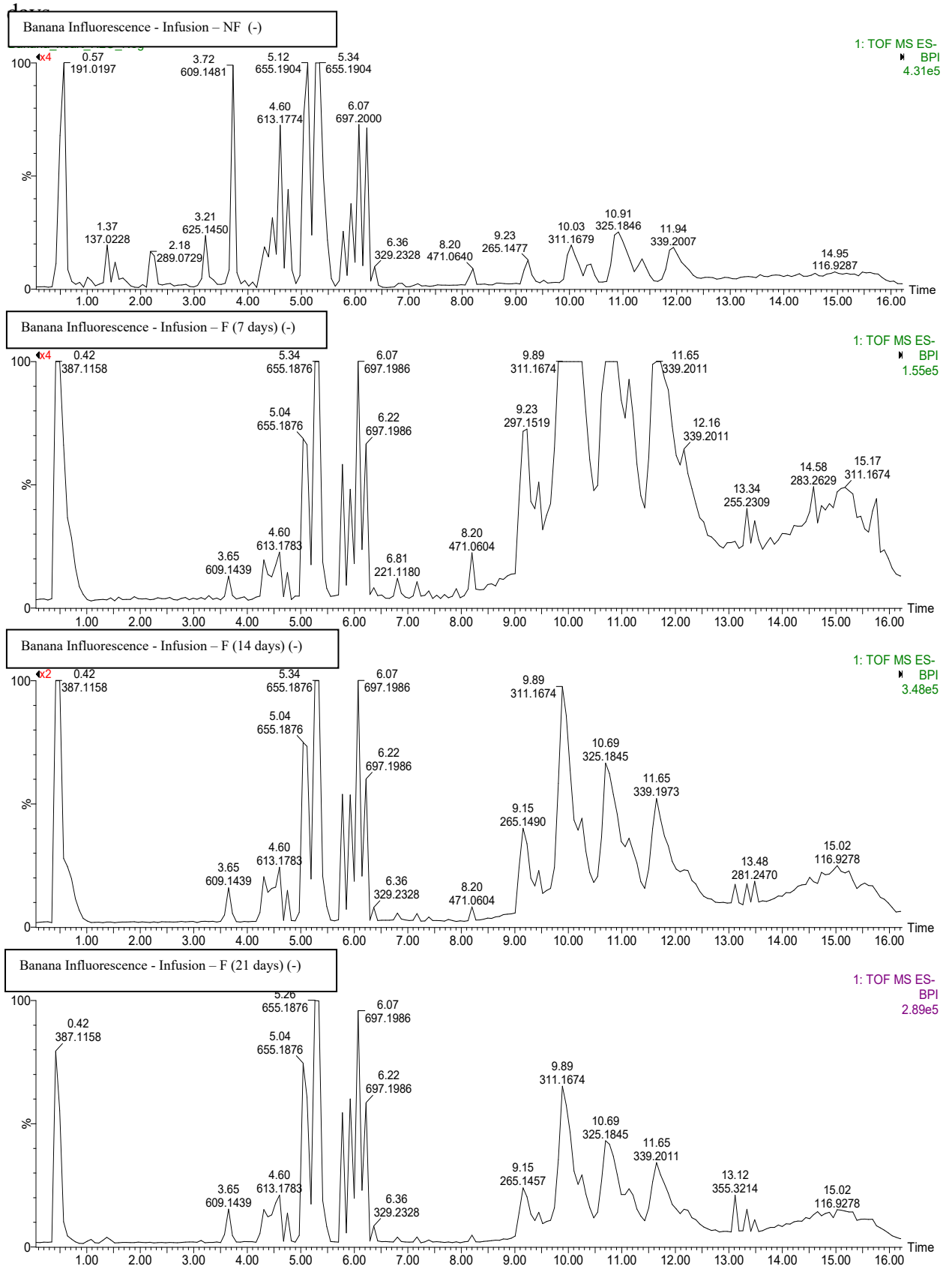
**Figure S2:** Chromatograms obtained in negative mode by UPLC-ESI-MS/MS for black tea infusion (*Camellia sinensis*) and fermented extracts in 7, 14 and 21 days



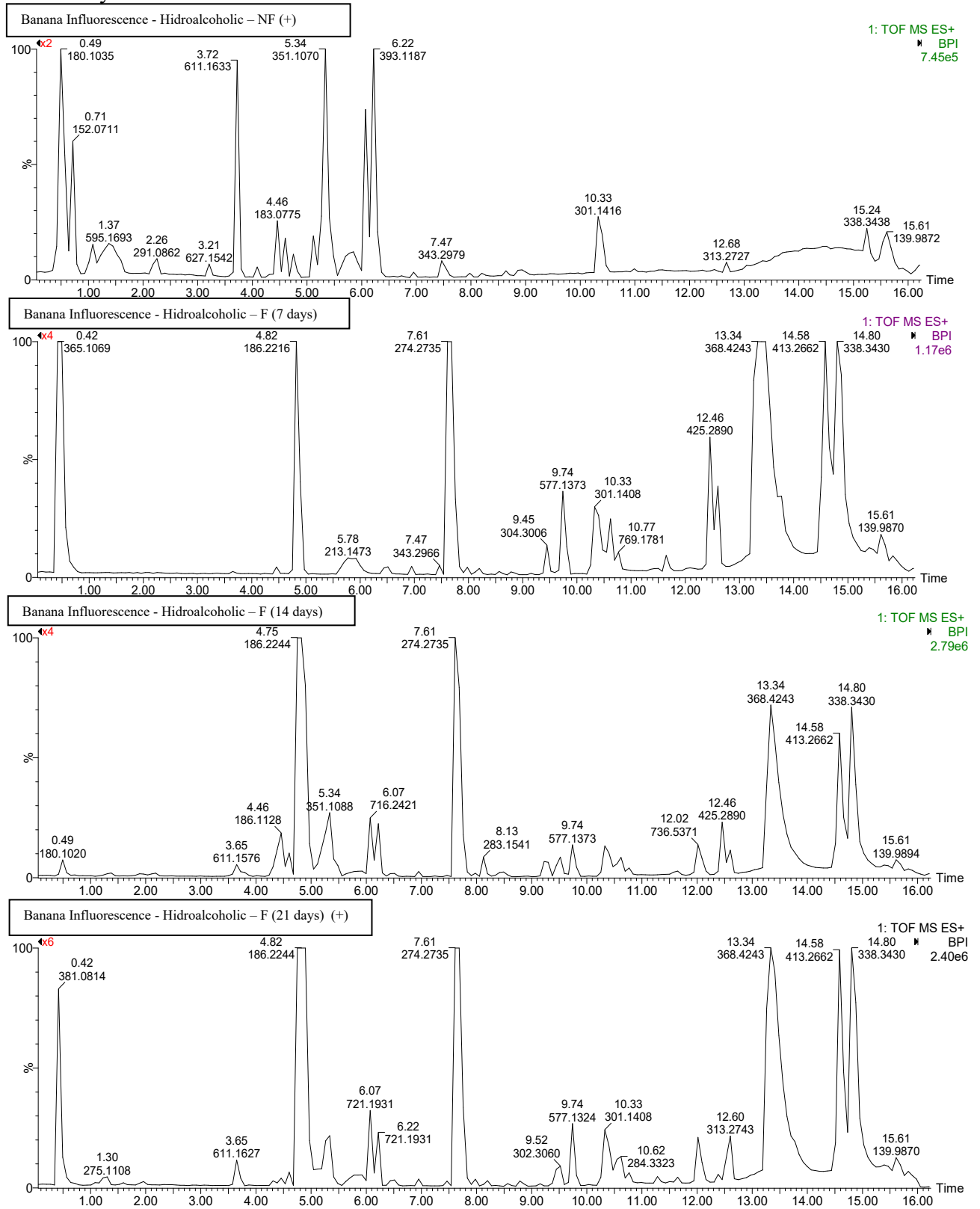
**Figure S3:** Chromatograms obtained in positive mode by UPLC-ESI-MS/MS of banana inflorescence (*M. acuminata*) infusion extract and fermented extracts in 7, 14 and 21



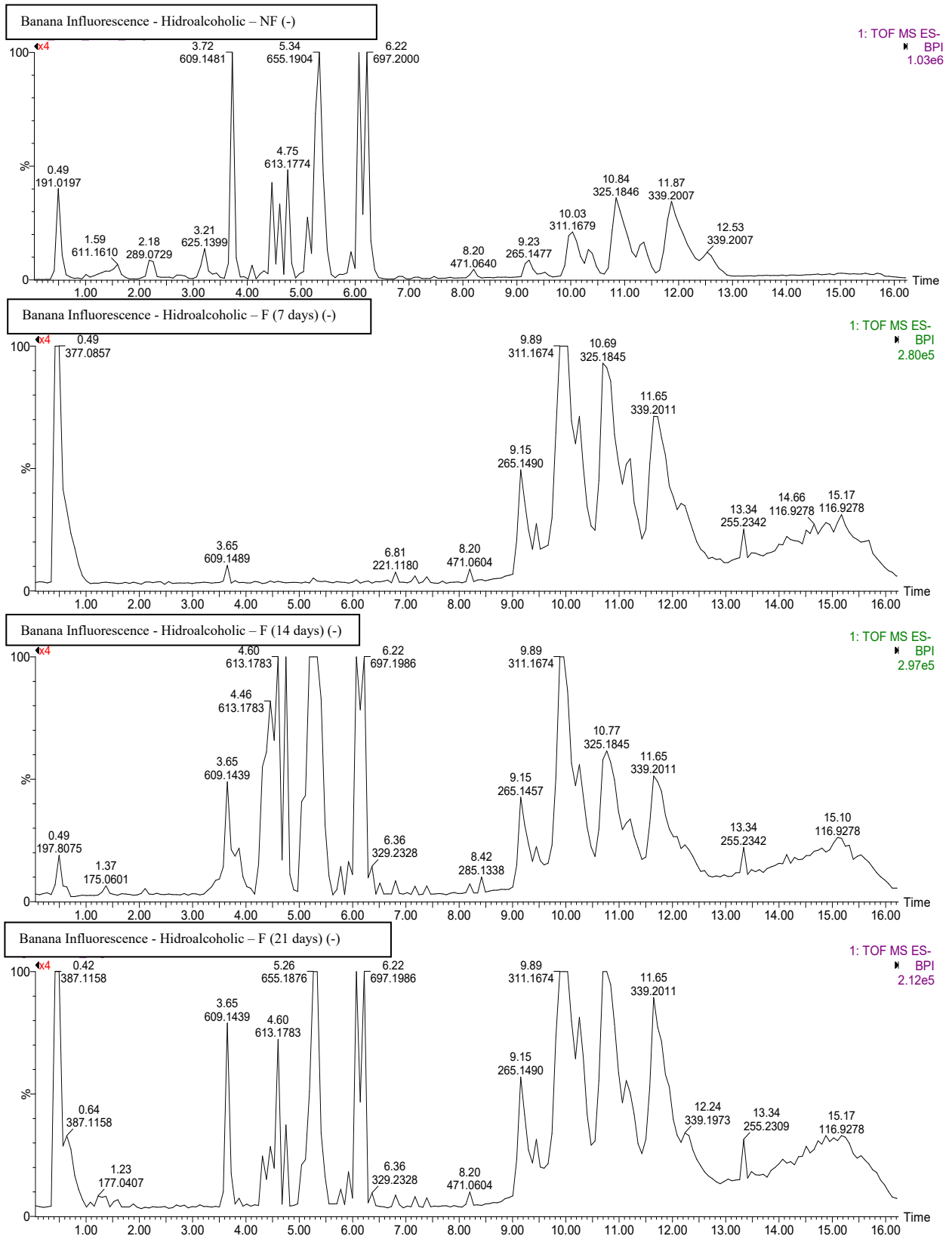
**Figure S4:** Chromatograms obtained in negative mode by UPLC-ESI-MS/MS of banana inflorescence (*M. acuminata*) infusion extract and fermented extracts in 7, 14 and 21



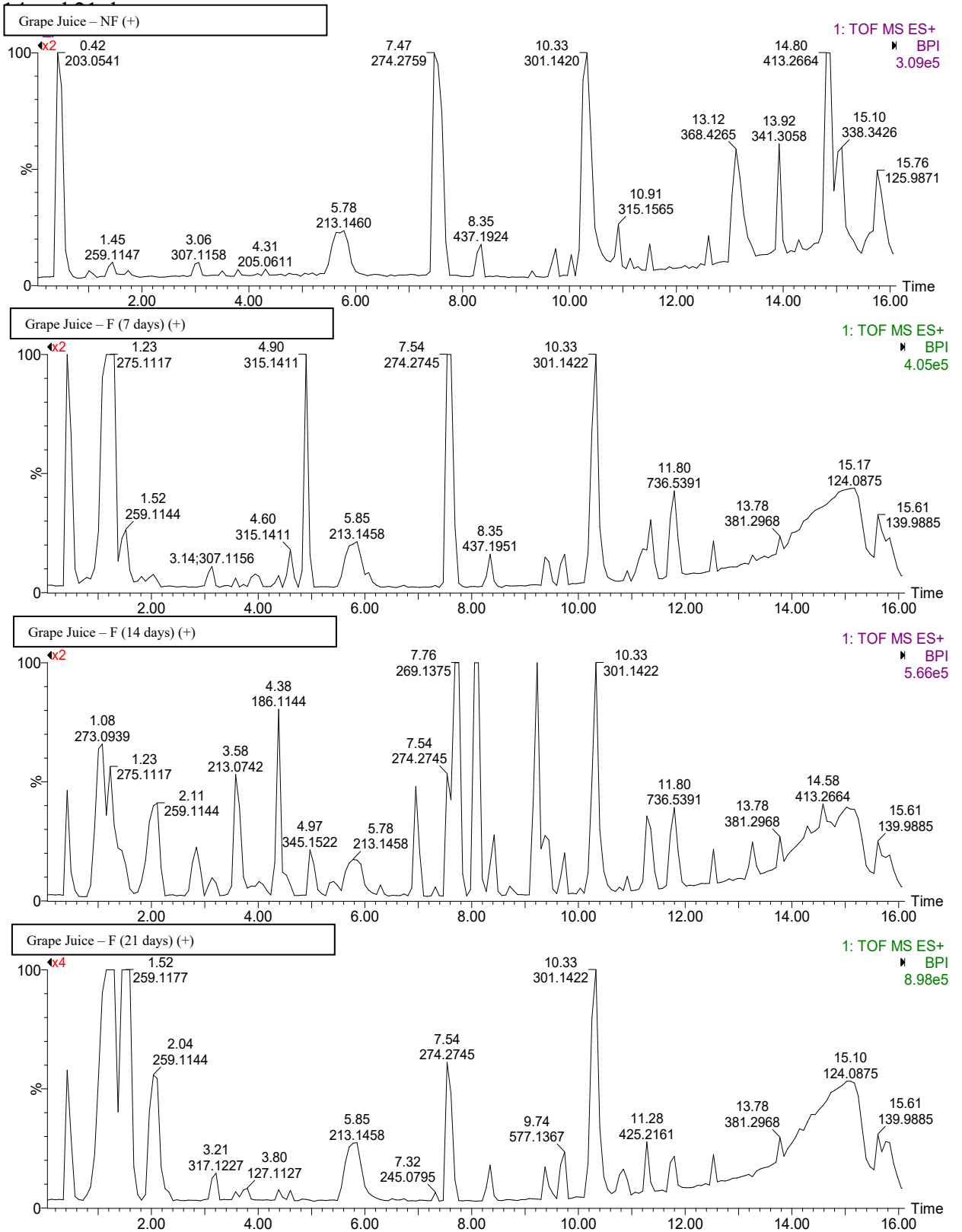
**Figure S5:** Chromatograms obtained in positive mode by UPLC-ESI-MS/MS of banana inflorescence (*M. acuminata*) hydroalcoholic extracts and fermented extracts in 7, 14 and 21 days.



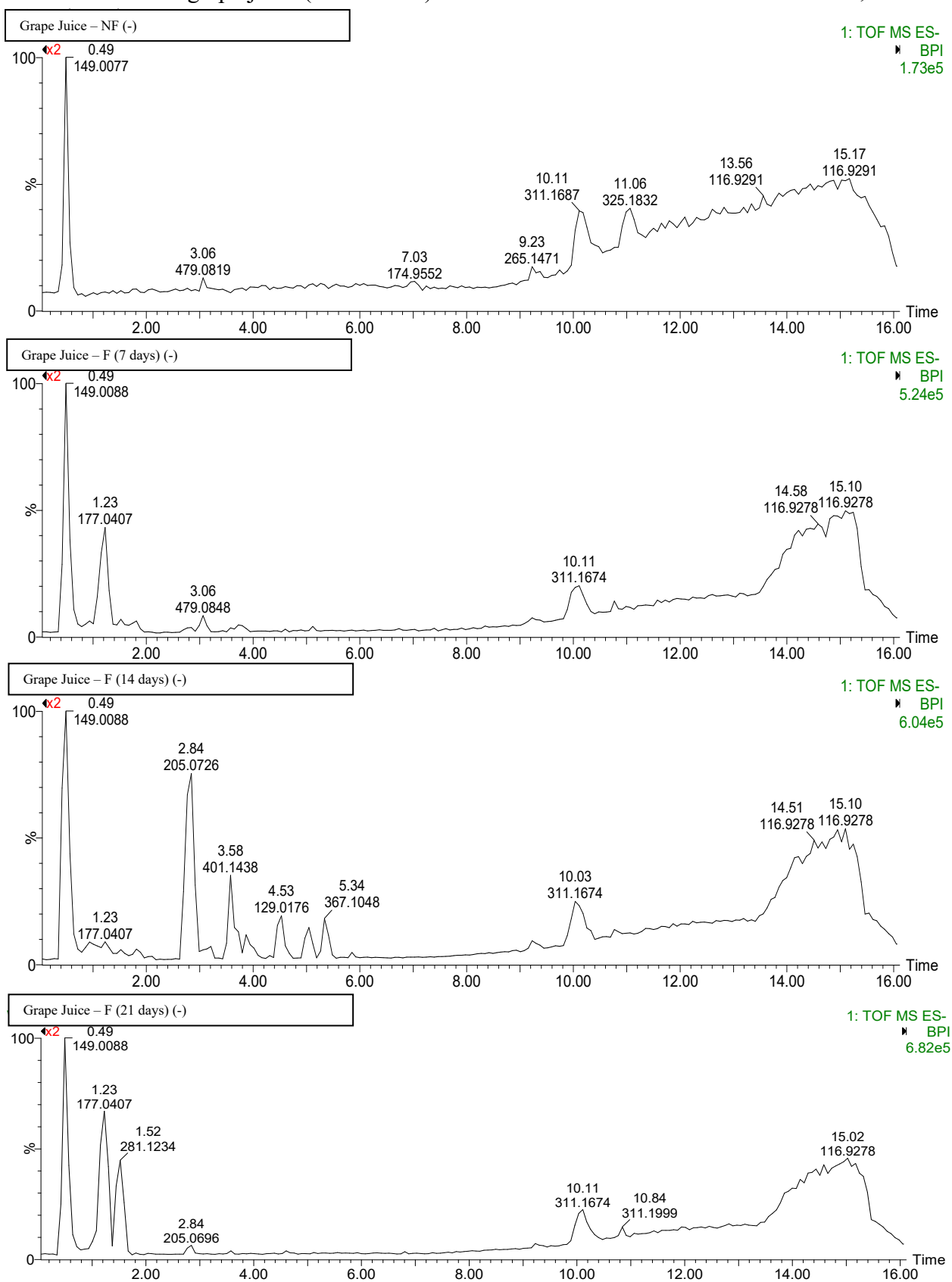
**Figure S6:** Chromatograms obtained in negative mode by UPLC-ESI-MS/MS of banana fluorescence (*M. acuminata*) hydroalcoholic extracts and fermented extracts in 7, 14 and 21 days.



**Figure S7:** Chromatograms obtained in positive mode by UPLC-ESI-MS/MS for n-butanol extract of grape juice (*V. labrusca*) non-fermented and fermented extracts in 7,

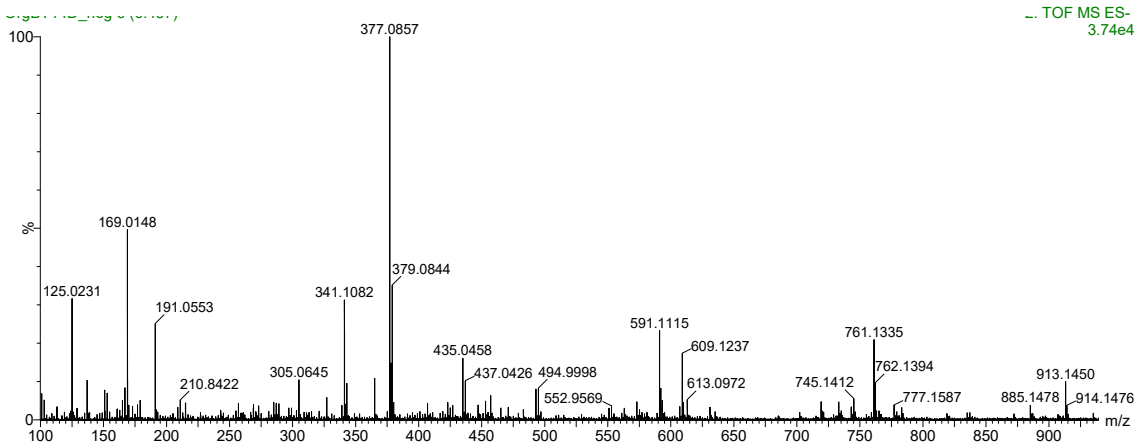


**Figure S8:** Chromatograms obtained in negative mode by UPLC-ESI-MS/MS for n-butanol extract of grape juice (*V. labrusca*) non-fermented and fermented extracts in 7,

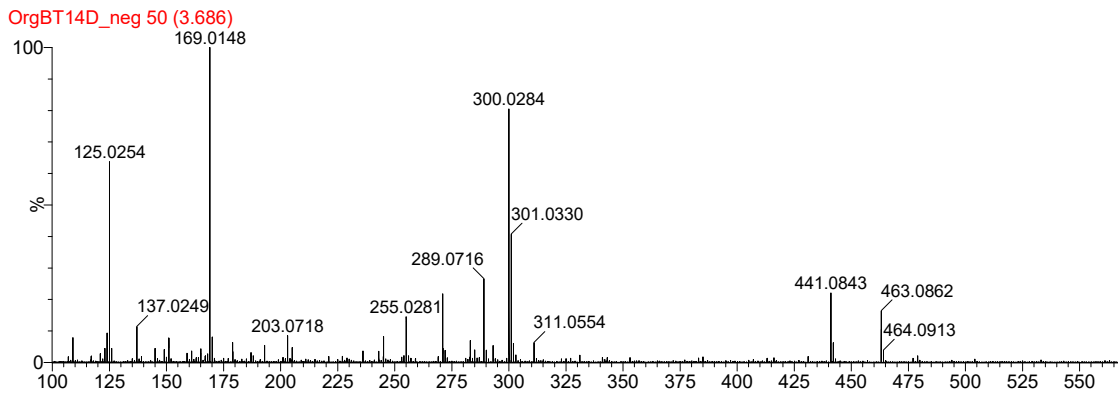




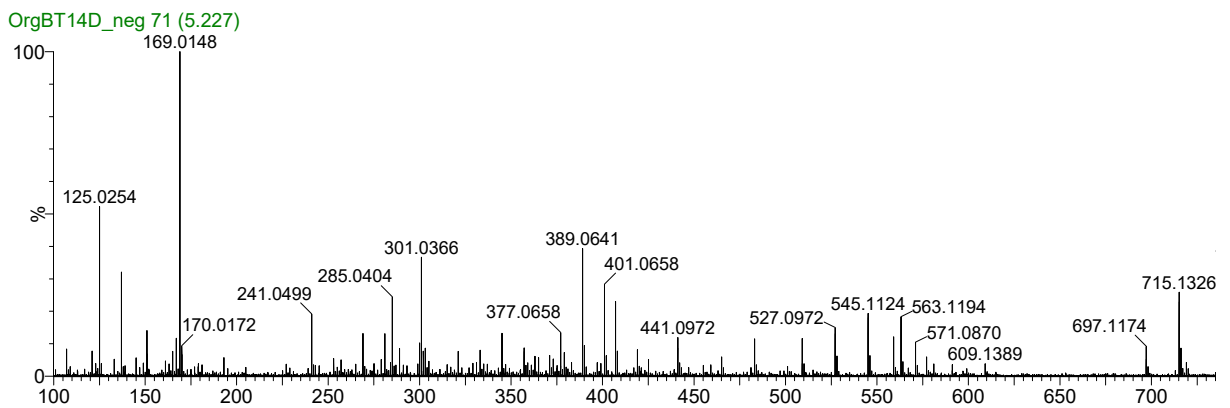
**Figure S9:** Tandem mass spectrum of compound 3: Gallocatechin-(4 $\alpha$ ->8)-epigallocatechin detected in black tea



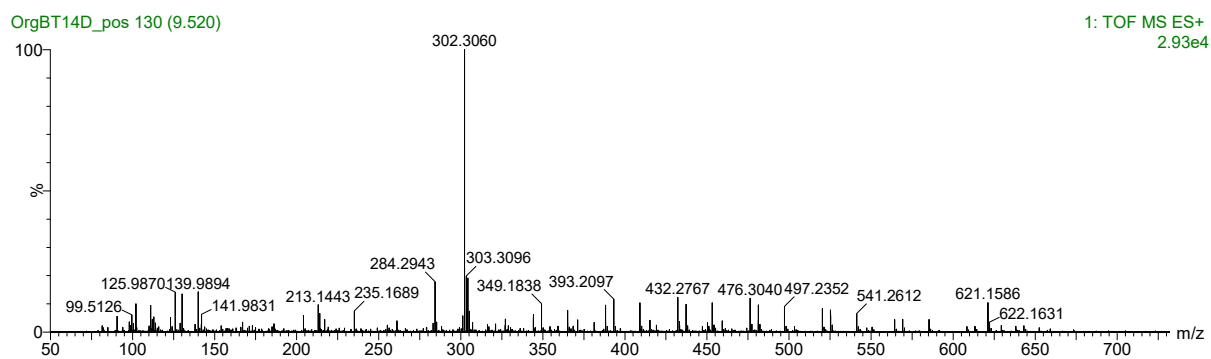
**Figure S10:** Tandem mass spectrum of compound 19: (-)-Catechin 3-O-gallate detected in black tea



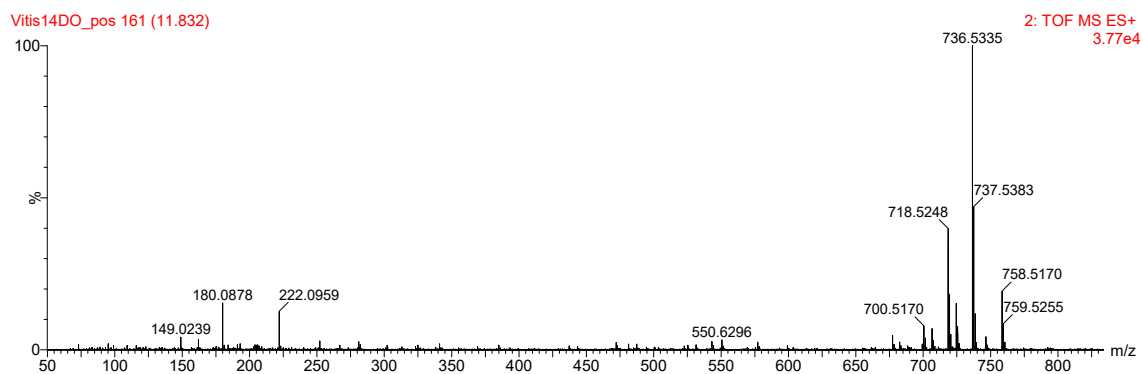
**Figure S11:** Tandem mass spectrum of compound 32: Theaflavin-3-gallate detected in black tea



**Figure S12:** Tandem mass spectrum of m/z 302.3050 (compound **37**) detected in Black tea



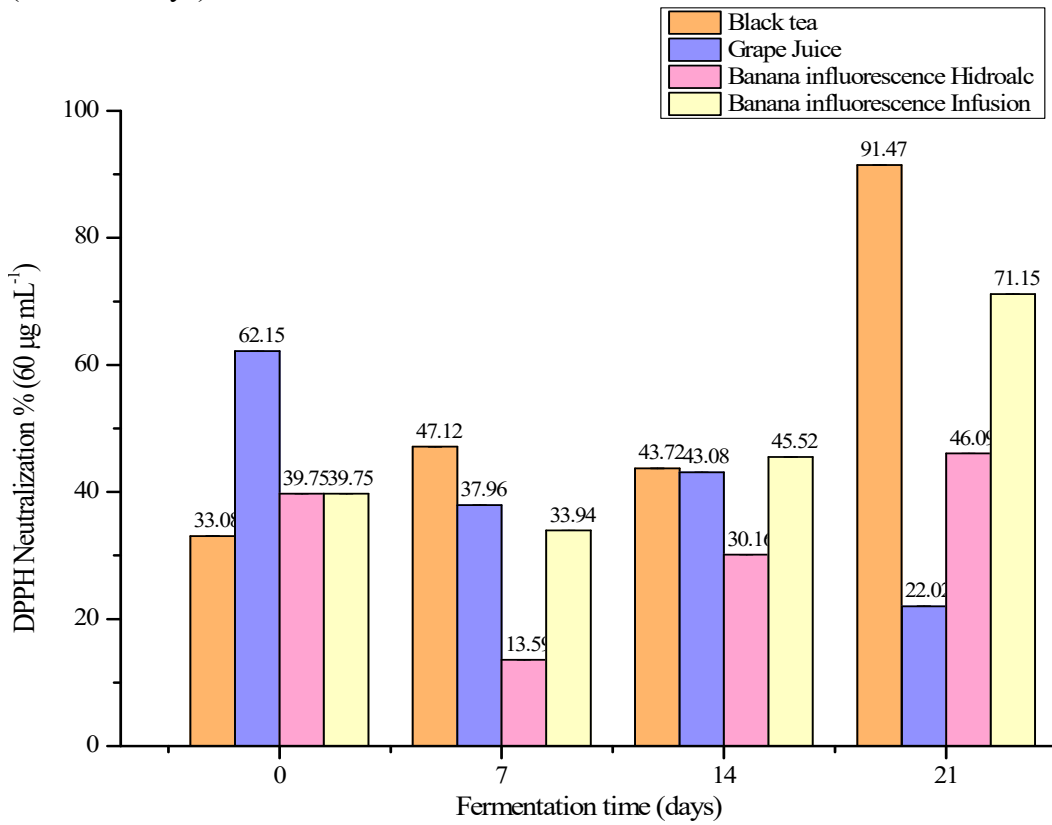
**Figure S13:** Tandem mass spectrum of compound **54** detected in grape juice



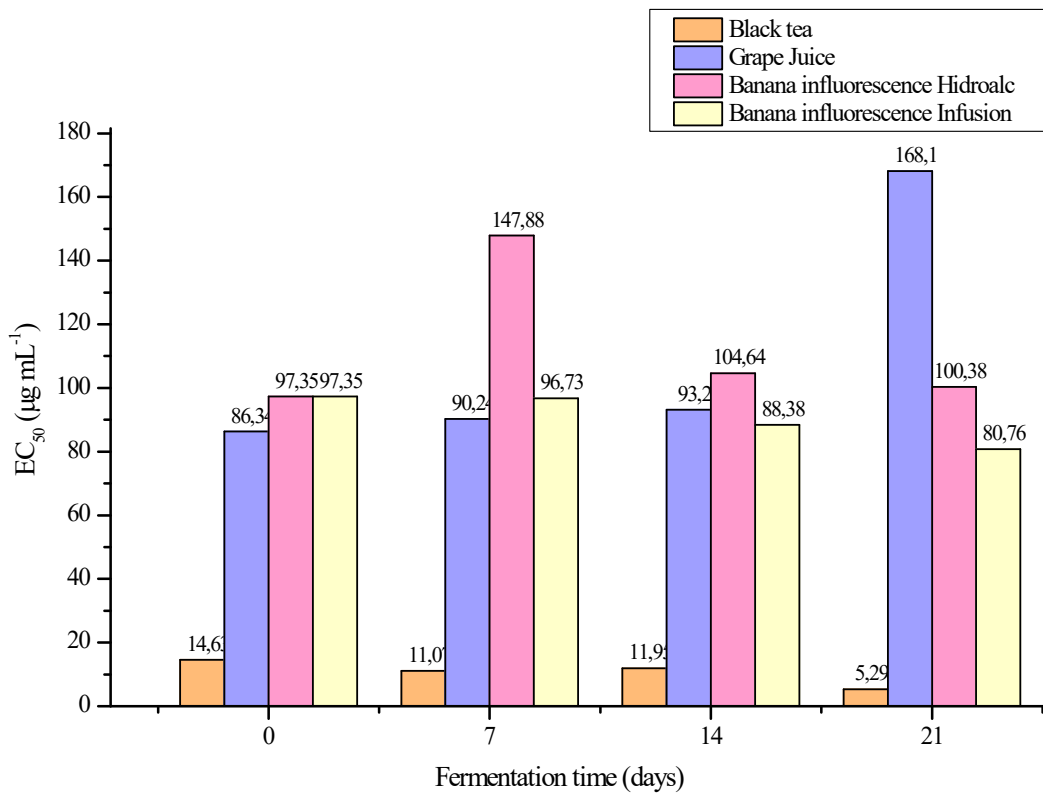
**Table S1** Calibration curves obtained for positive control, non-fermented and fermented extracts antioxidant activity by DPPH neutralization assay

Samples	Ferm.Time (days)	Equation	R <sup>2</sup>	Range ( $\mu\text{g mL}^{-1}$ )	EC <sub>50</sub> ( $\mu\text{g mL}^{-1}$ )
Ácido gálico	0	$y = 13,49x + 43,729$	0,9359	0,05-4	0.46
Trolox	0	$y = 19,425x - 1,8908$	0,9926	0,1-5	$2.67 \pm 0.10$
Black Tea	0	$y = 3,4178x$	0,9913	5-30	$14.63 \pm 0.10$
	7	$y = 4,5173x$	0,9908	0,5-20	$11.07 \pm 0.10$
	14	$y = 4,1851x$	0,9799	0,5-20	$11.95 \pm 0.10$
	21	$y = 9,4503x$	0,971	0,5-10	$5.29 \pm 0.10$
Grape Juice	0	$y = 0,5791x$	0,9199	20-200	$86.34 \pm 0.37$
	7	$y = 0,5541x$	0,9353	20-200	$90.24 \pm 0.40$
	14	$y = 0,5365x$	0,952	20-200	$93.20 \pm 0.23$
	21	$y = 0,2974x$	0,985	20-200	$168.12 \pm 1.22$
Banana Hidroalcoholic	0	$y = 0,5136x$	0,9745	20-200	$97.35 \pm 0.06$
	7	$y = 0,3381x$	0,9734	20-200	$147.89 \pm 0.05$
	14	$y = 0,4778x$	0,9595	20-200	$104.65 \pm 0.06$
	21	$y = 0,4981x$	0,9659	20-200	$100.38 \pm 0.07$
Banana Infusion	7	$y = 0,5169x$	0,9826	20-200	$96.73 \pm 0.05$
	14	$y = 0,5657x$	0,9424	20-200	$88.39 \pm 0.08$
	21	$y = 0,6191x$	0,8787	20-200	$80.76 \pm 0.10$

**Figure S14:** DPPH neutralization % at  $60 \mu\text{g mL}^{-1}$  for non-fermented (0) and fermented (7, 14, 21 days) extracts.



**Figure S15** Antioxidant activity for non-fermented (0) and fermented (7, 14, 21 days) extracts obtained through calibration curves of DPPH neutralization



**Figure S16** Alpha-glucosidase inhibition percentage at 1400  $\mu\text{g mL}^{-1}$  for non-fermented (0), fermented (7, 14 and 21 days) for anti-hyperglycemic activity.

