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Supplementary material

Polystyrene Biodegradation by *Tenebrio molitor* Larvae: Identification of Generated Substances Using a GC-MS Untargeted Screening Method

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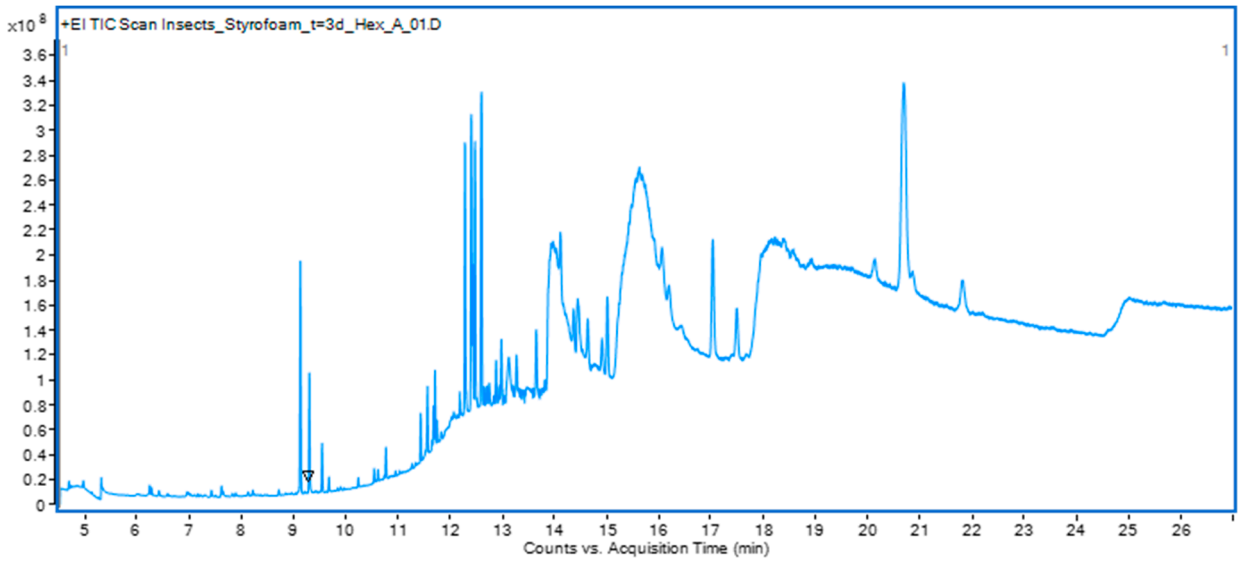

Figure S1. Total Ion chromatogram (TIC) from untargeted GC-EIC-MS analysis of insects biomass during biodegradation of polystyrene (day 3).

Table S1. Analytical features together with precision and accuracy results of the validated analytical method.

Analyte	Added (mg kg^{-1}*)	Linear regression coefficient (R^2)	LOD (mg kg^{-1}*)	LOQ (mg kg^{-1}*)	RSD (%)	Recovery[a] (%)
Styrene	40.0	0.99	0.012	0.030	9.3	94.7
	500.0				2.9	96.9
α-methyl styrene	40.0	0.991	0.011	0.032	15.2	100.3
	500.0				4.5	96.7
Acetophenone	40.0	0.990	0.012	0.030	8.3	94.5
	300.0				6.6	96.4
Cumyl alcohol	40.0	0.993	0.009	0.027	9.6	98.4
	300.0				12.5	96.7
Ethyl linoleate	40.0	0.990	0.011	0.026	2.1	96.6
	300.0				8.9	100.9
Ethyl hexadecanoate	40.0	0.991	0.013	0.036	14.9	104.3
	300.0				9.0	99.1
2,4-di-tert butyl phenol	40.0	0.994	0.010	0.027	13.3	99.2
	300.0				15.9	103.9
methyl-9,12-octadecadienoate	40.0	0.990	0.014	0,039	8.9	97.9
	300.0				11.6	95.9
2,4,6-triphenyl-1-hexene	40.0	0.990	0.011	0.032	12.0	99.4
	300.0				13.1	93.4
1,3,5-triphenylcyclohexane	40.0	0.991	0.008	0.025	10.1	96.7
	300.0				9.3	99.0
Tetradecanamide	40.0	0.994	0.012	0.034	9.7	100.5
	300.0				12.1	84.0
Hexadecanamide	40.0	0.995	0.011	0.031	10.2	99.4
	500.0				7.6	94.8
9-Octadecenamide	40.0	0.990	0.020	0.060	5.2	88.3
	500.0				4.2	94.6

*mg kg^{-1} of dry weight sample.

[a] Recovery was assessed in 2 mass fraction levels.