



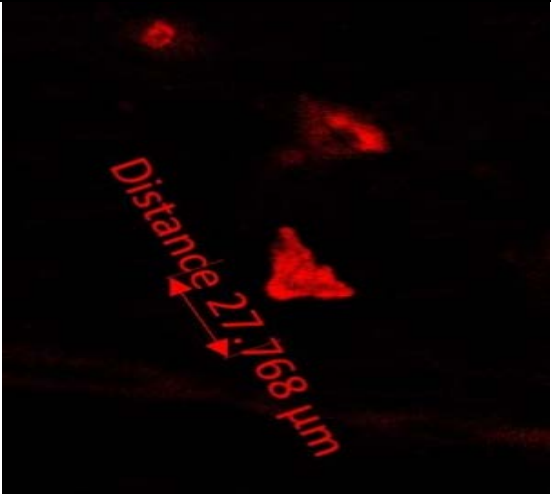
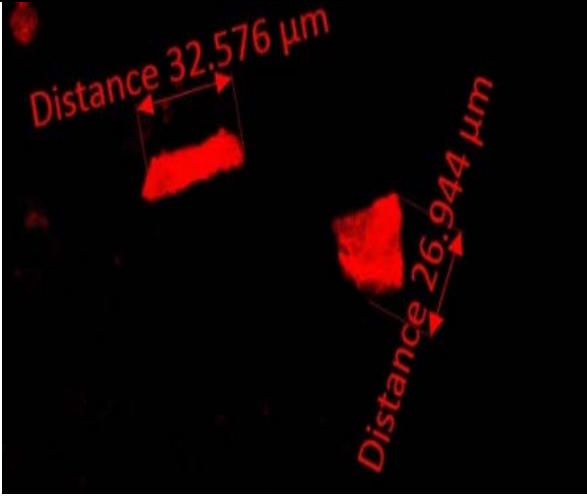
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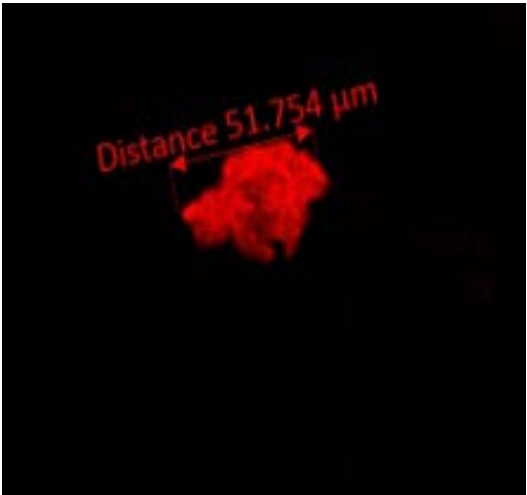
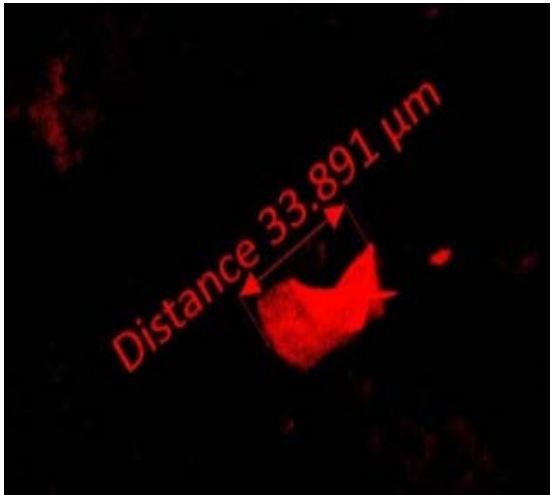
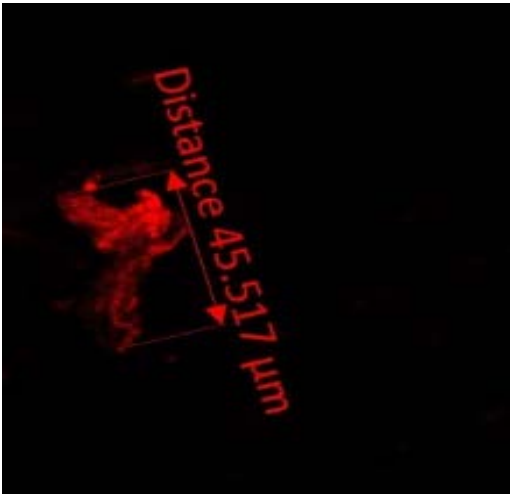
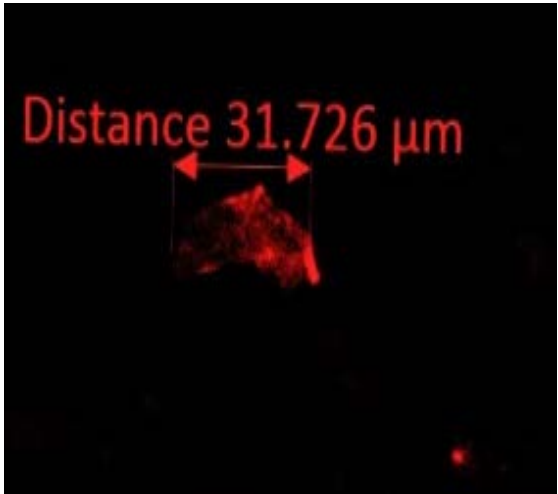
Nile Red Images

Table S1. Nile red staining indicative of plastic leaching in samples 5–7 tested after 10 days at 5 °C

A: EPS polystyrene meat tray at 5 °C.

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

B: EPS polystyrene take away at 5 °C.

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

C: XPS polystyrene foam disposable plate at 5 °C


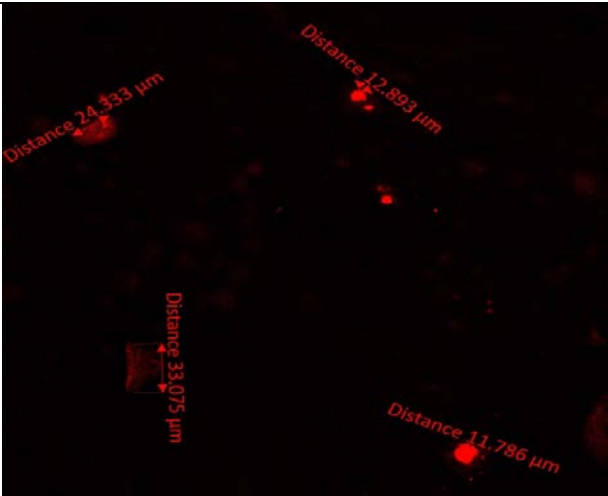
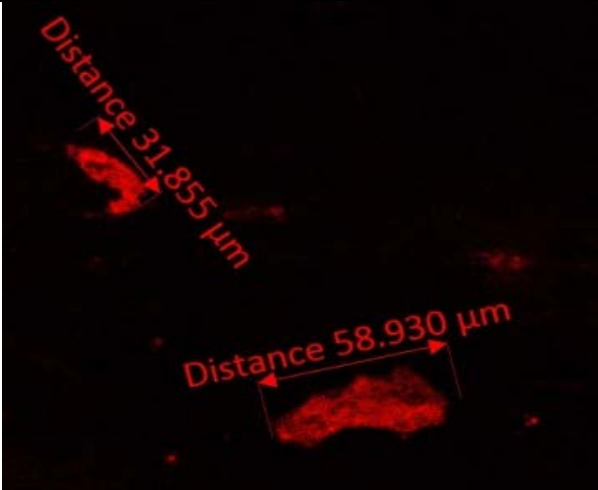

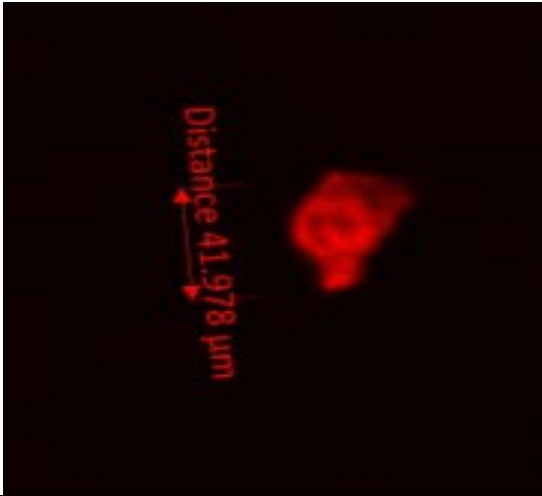

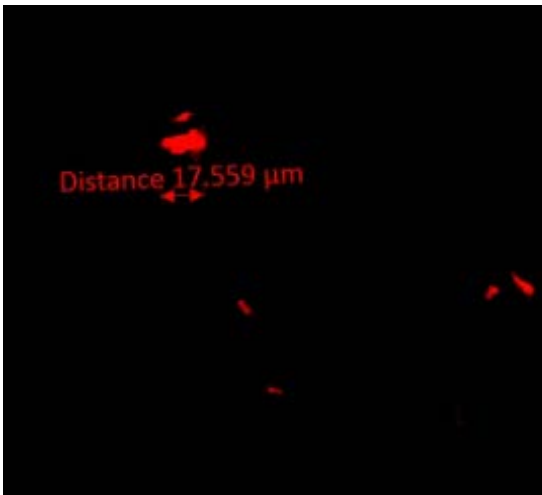


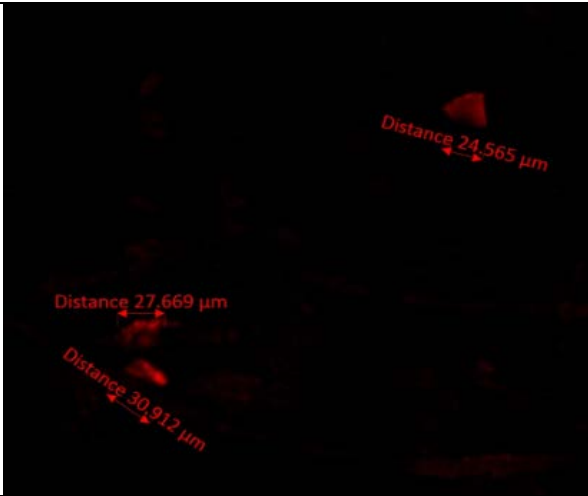

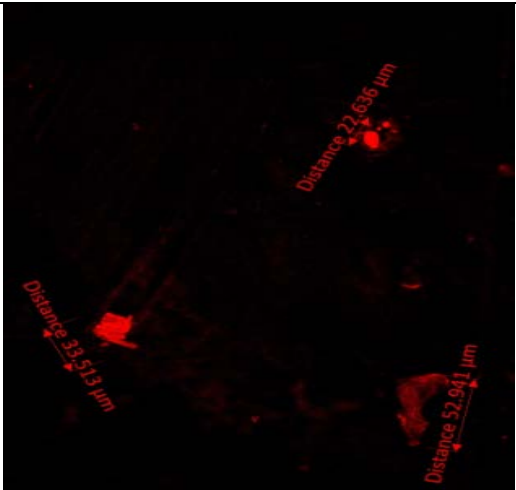
10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

Table S2. Nile red staining indicative of plastic leaching in samples 5–7 tested after 2 hours at 60 °C

A: EPS polystyrene meat tray at 60 °C.

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

B: EPS polystyrene take away at 60°C

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

C: XPS polystyrene disposable plate at 60 °C.





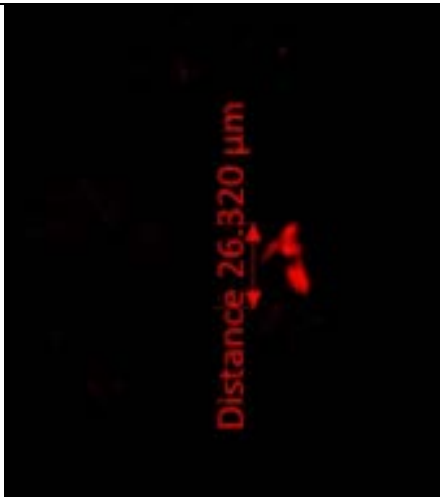
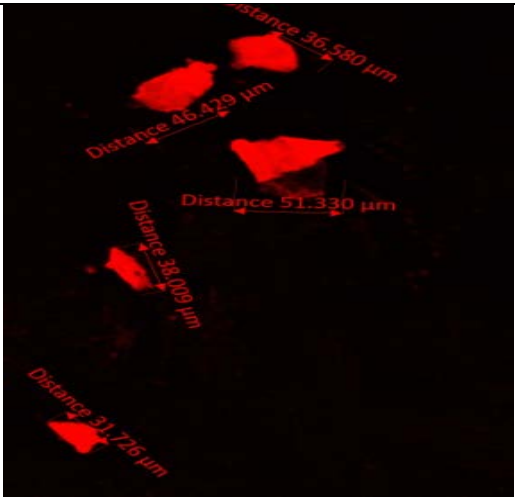
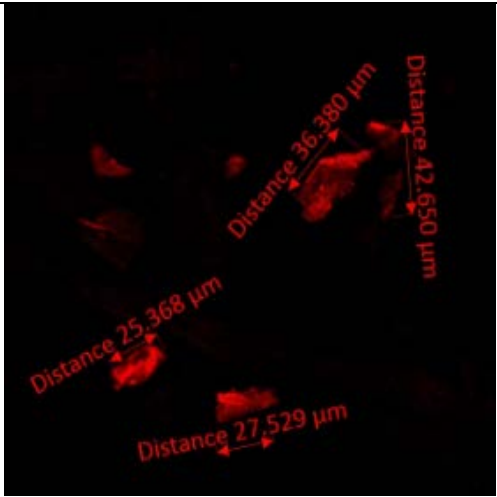

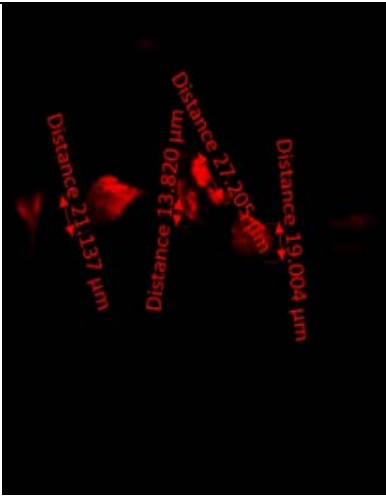
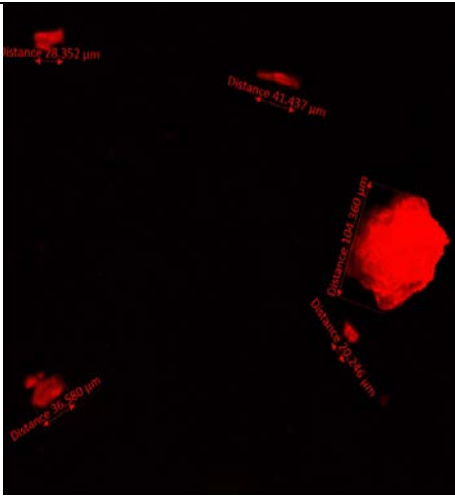

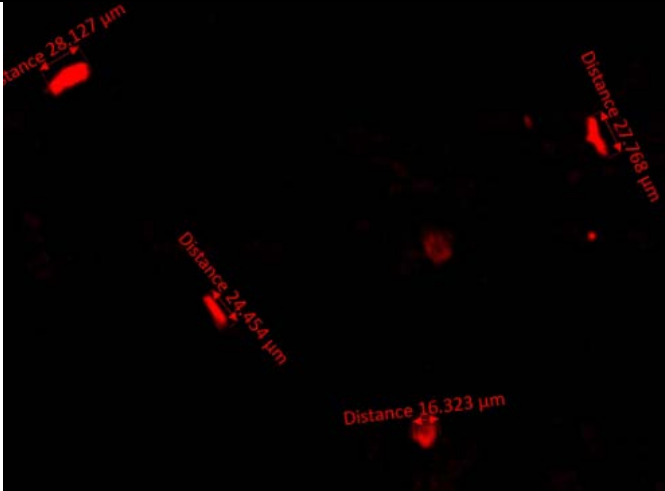
10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

Table S3. Nile red staining indicative of plastic leaching in samples 5–7 tested after 10 days at 70 °C.

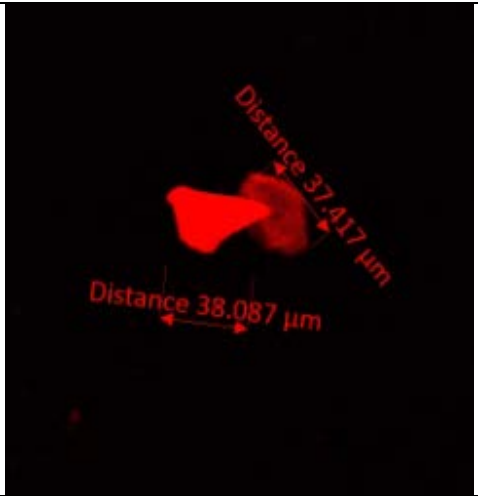
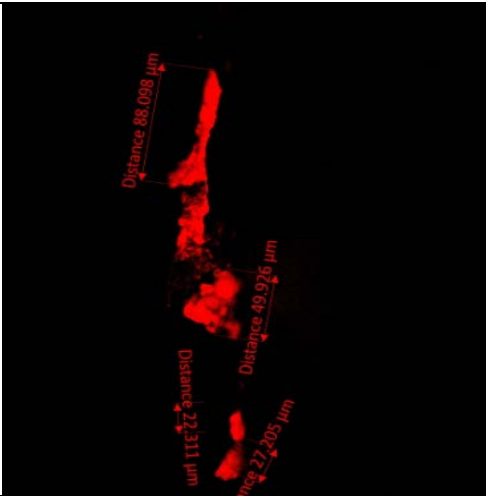

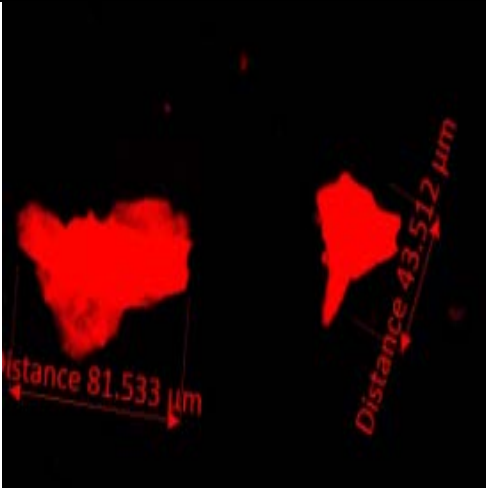
A: EPS polystyrene meat tray at 70 °C.

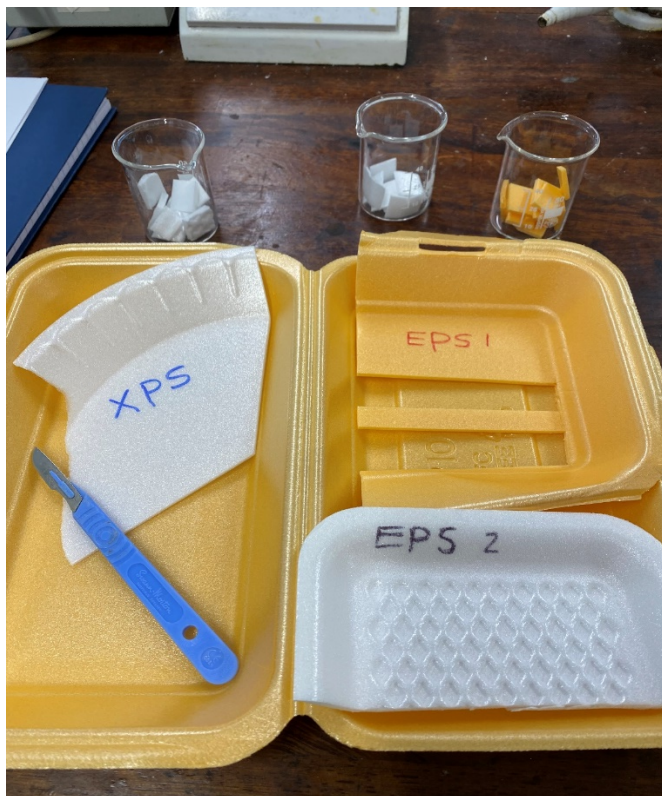
10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

B: EPS polystyrene take away at 70 °C.

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	

C: XPS polystyrene disposable plate at 70 °C.

10% Ethanol		95% Ethanol	
50% Ethanol		3% Acetic Acid	



Cutting process of samples



Control experiment

Figure S1. Control experiment.

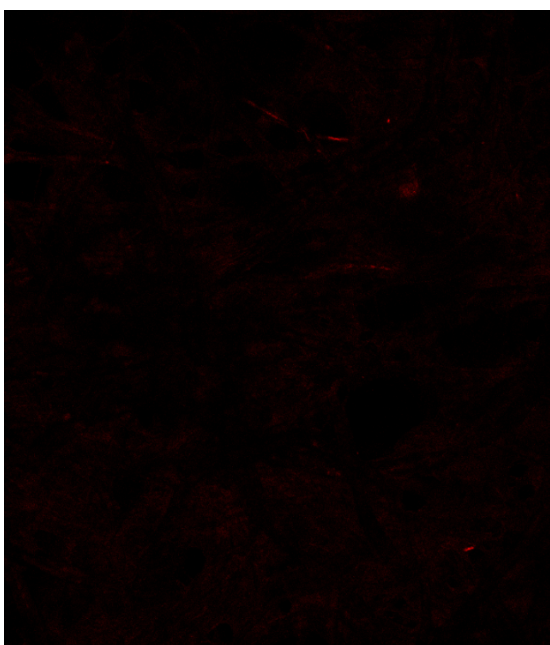


Image of polycarbonate track-etch membranes with Nile Red stain

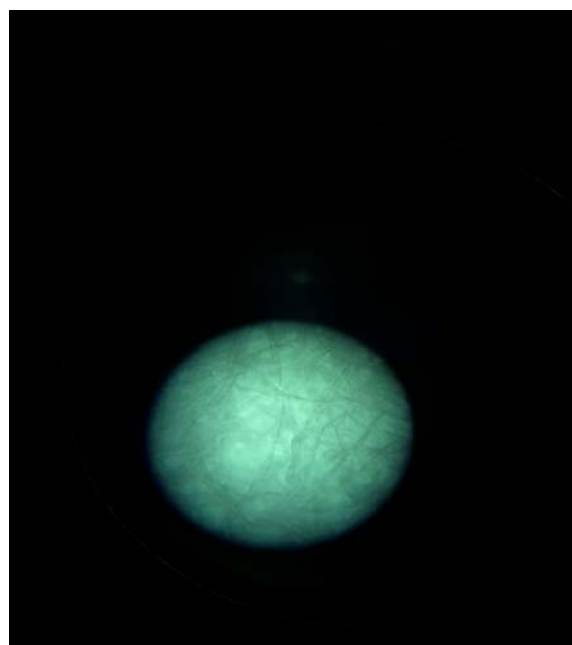


Image of polycarbonate track-etch membranes without Nile Red stain

Figure S2. Images of clear of PCTE membrane from the microplastics-control experiment using Axio Observer Z1/7 microscope with an EC Plan Neofluar 10 × 0.30 m27 objective lens at an emission of 636 nm and an excitation of 559 nm; using an LSM800 MA Pmt2 imaging device.

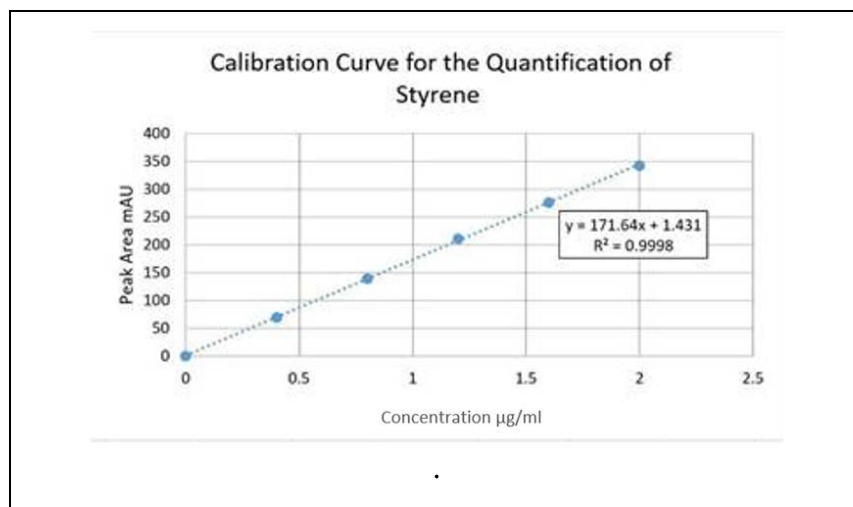


Figure S3. Calibration curve for styrene 0–2µg/mL.

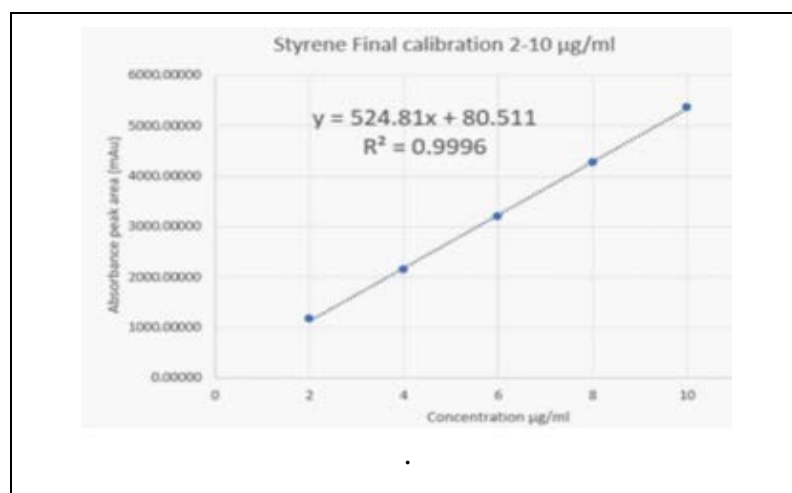


Figure S4. Calibration curve for styrene 2–10µg/mL.

Selective HPLC are presented below. The peak eluting in minutes being represented on the X-axis and the peak areas represented in *mAU* on the Y-axis).

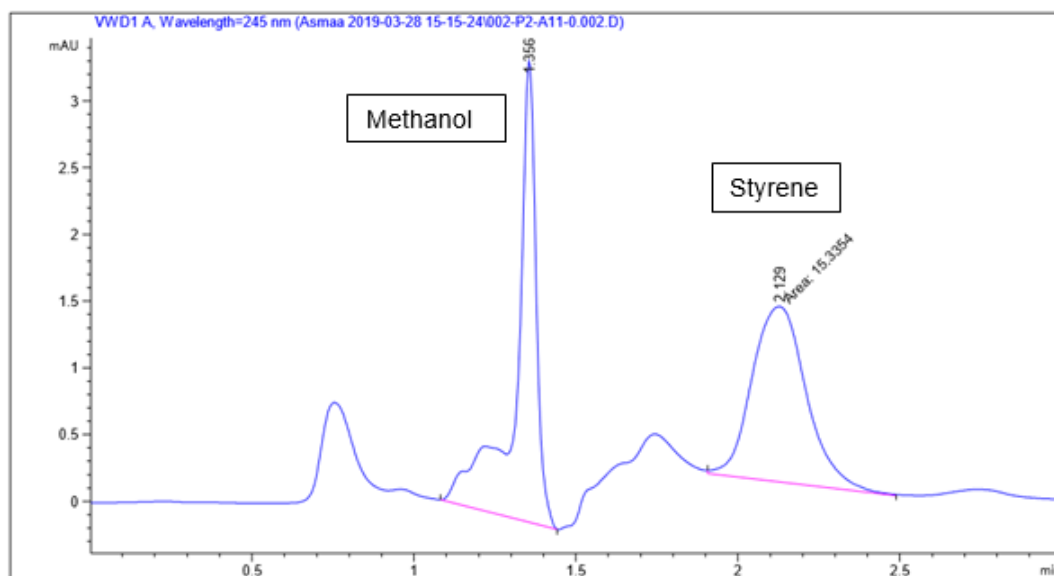


Figure S5. Chromatogram of a standard styrene solution with concentration 0.8 µg/mL.

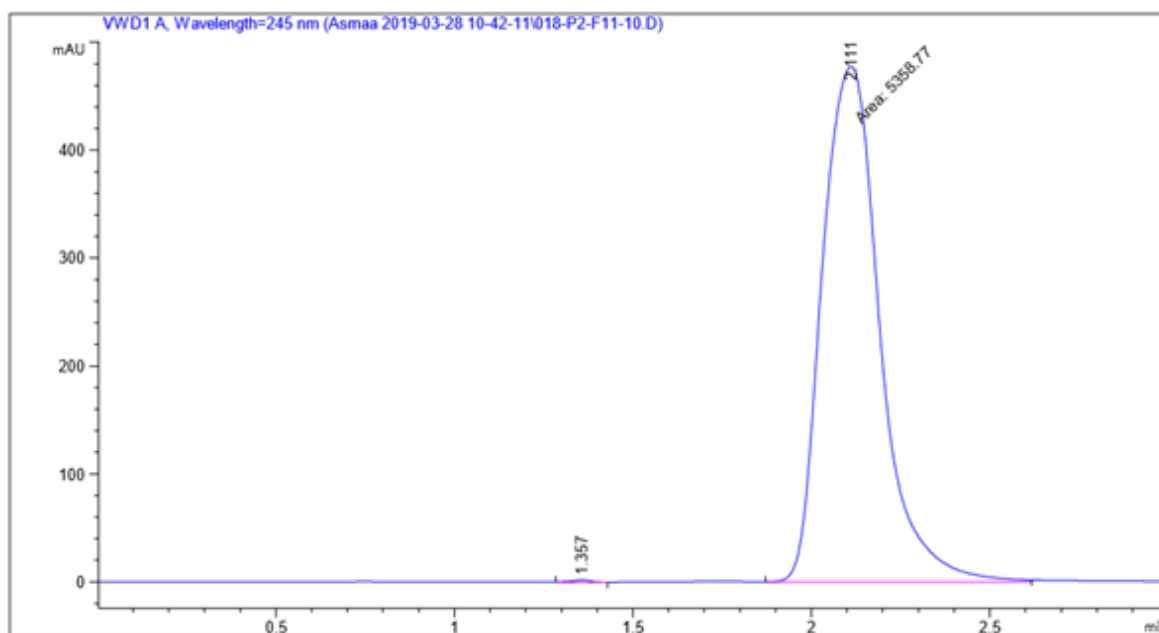


Figure S6. Chromatogram of a standard styrene solution with concentration 10 µg/mL.

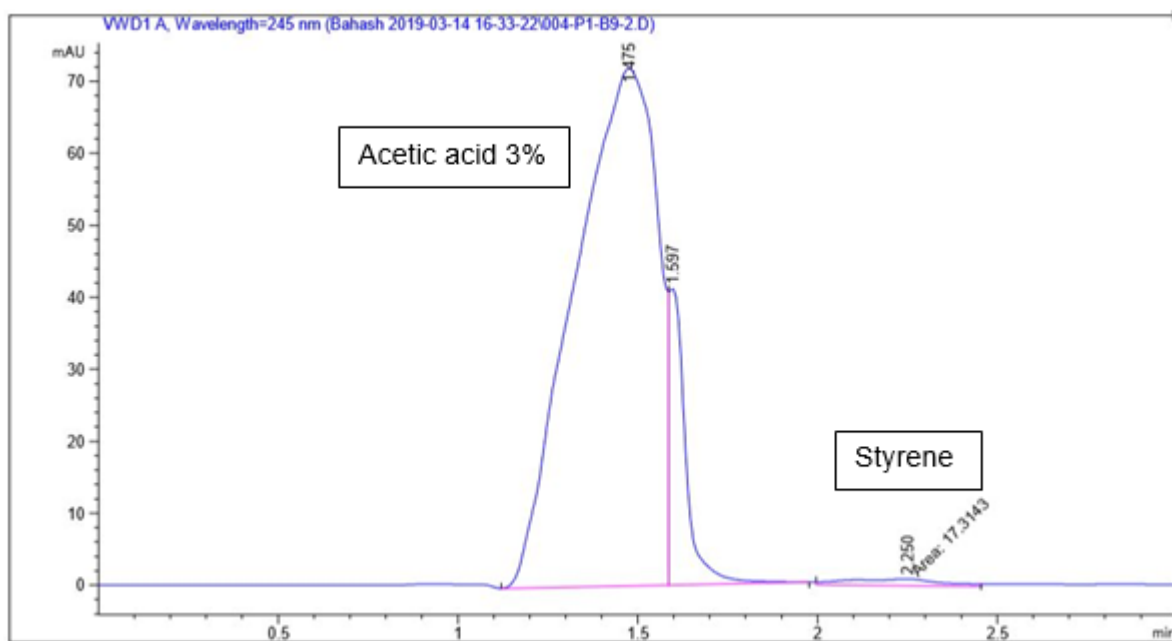


Figure S7: HPLC Migration of styrene in 3% acetic acid for 2 hours at 70 °C.

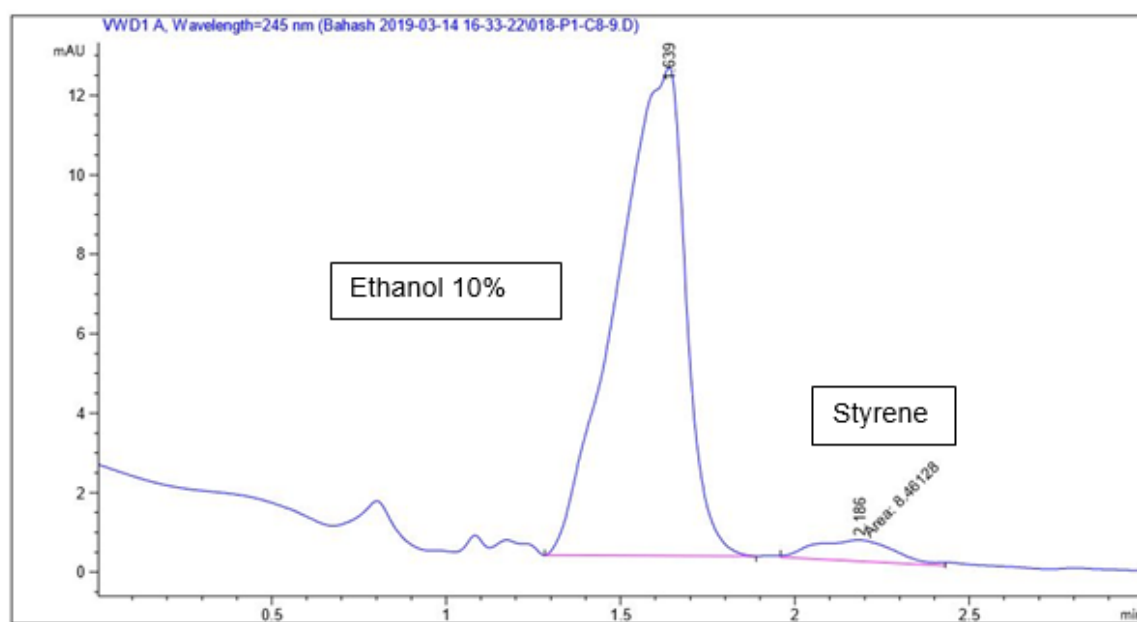


Figure S8: HPLC Migration of styrene in 10% ethanol for 240hours at 5 °C

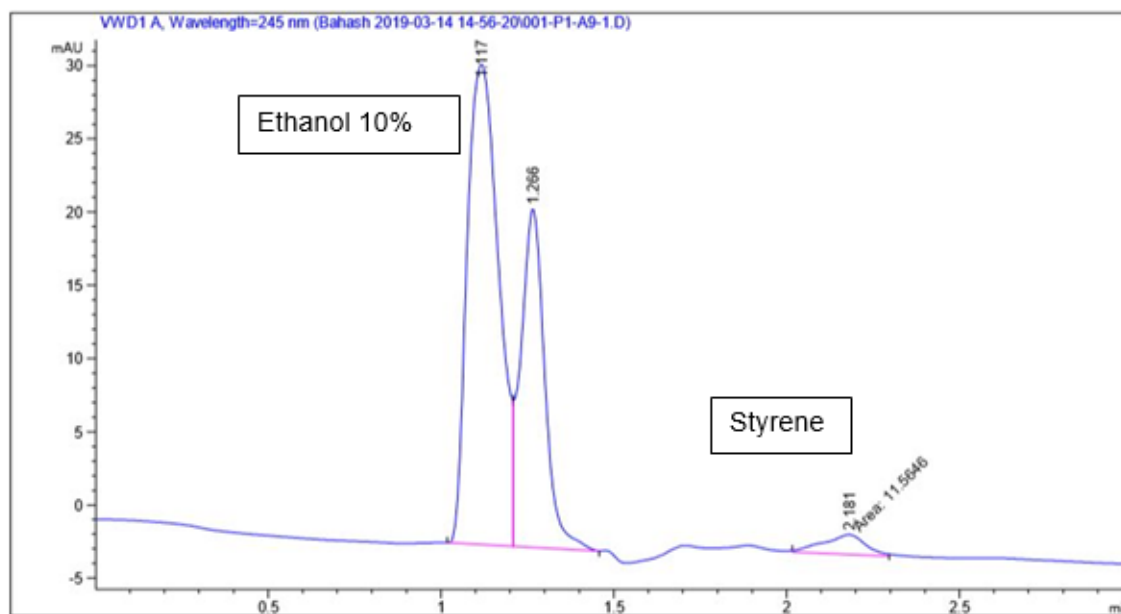


Figure S9: HPLC Migration of styrene in 10% ethanol for 2 hours at 70 °C.

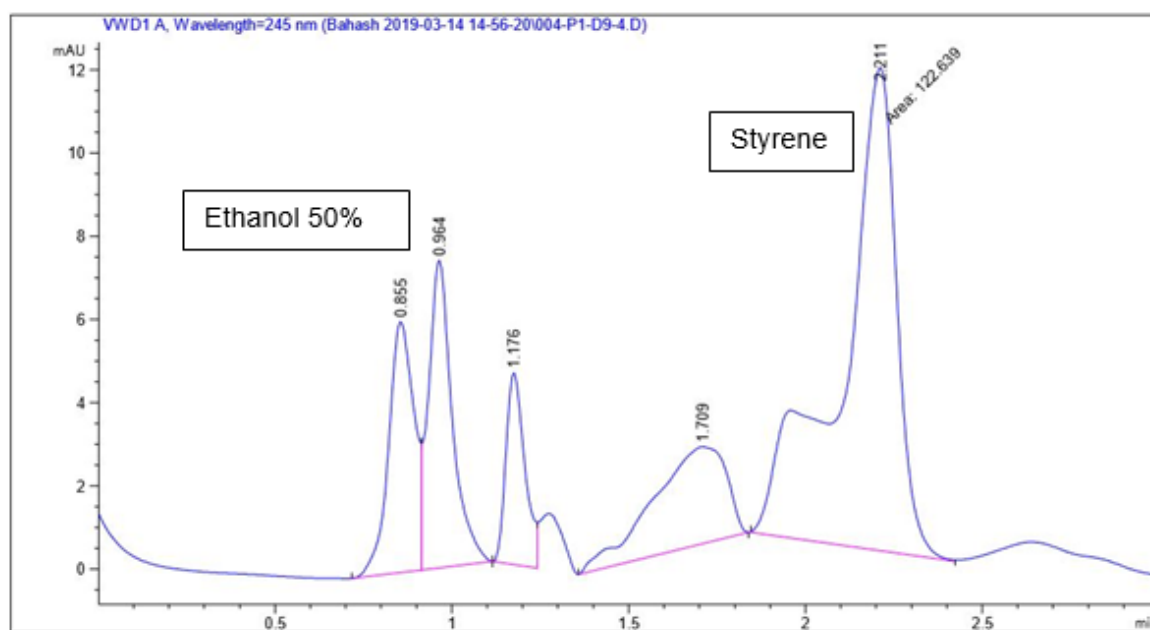


Figure S10: HPLC Migration of styrene in 50% ethanol for 2 hours at 70 °C.

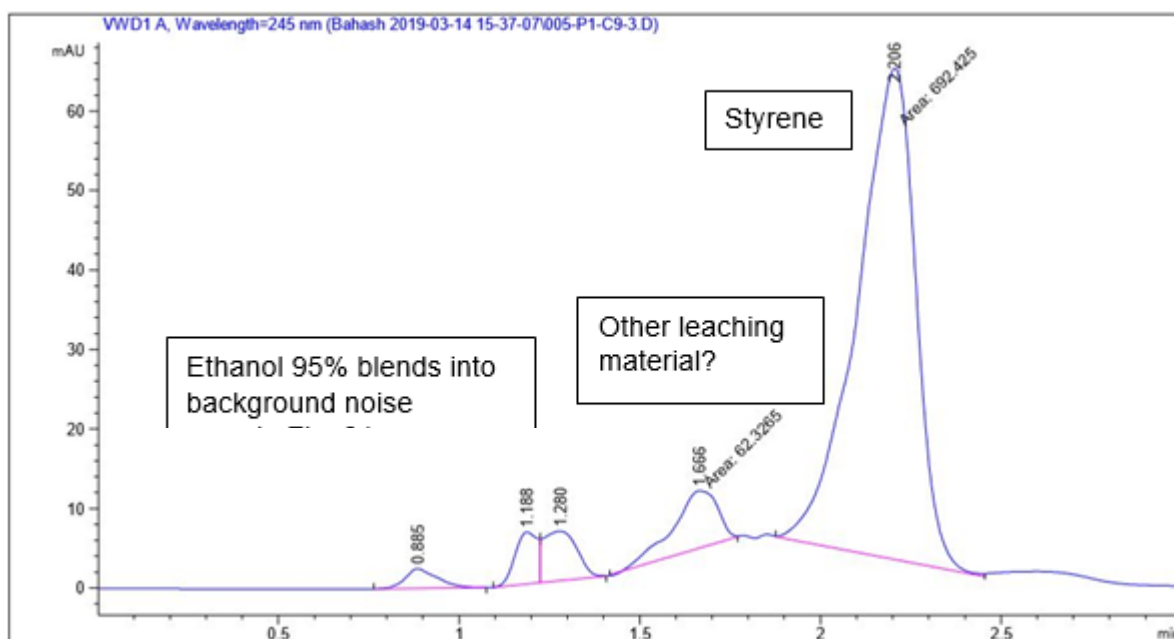


Figure S11: HPLC Migration of styrene in 95% ethanol for 2 hours at 70 °C.