For hexane and isopropanol samples, 2 g of plastic were cut into 1x1 cm pieces. For each SFE experiment, cut pieces (roughly 1x1 cm) of material were loaded into 10 mL vials for supercritical fluid extraction (SFE) was performed using a Waters MV System.

Convergence Chromatography (UPC²) plasma bag (EVA), and polyvinyl chloride blister pack (PVC). Following extraction, the resulting waste disposal is considered, microwave and SFE offer cost saving benefits in terms of solvent consumption and waste disposal.

In the application, four different types of packaging material were extracted: high density polyethylene (HDPE), low density polyethylene (LDPE), polyvinyl chloride (PVC), and polyethylene terephthalate (PET). Following extraction, the resulting waste disposal is considered, microwave and SFE offer cost saving benefits in terms of solvent consumption and waste disposal.

In terms of solvent used, Soxhlet required up to 175 mL of solvent which was followed up with evaporation to reduce sample volume. Microwave used up to 25 mL of solvent and took about 5 minutes. When improvements in sensitivity are needed, SFE offered the greatest flexibility in sample pre-concentration. Under low IPA extraction conditions, the final volume collected was about 25 mL, which was brought up to volume accordingly. Under high IPA extraction conditions, the final volume collected was about 5 mL, which was brought up to volume accordingly.

Comparing the duration of the extraction processes, Soxhlet was done one sample at a time for 8 hours. Microwave was done one sample at a time for 1.5 hours. SFE was run simultaneously, the final total extraction time would still be significantly longer than microwave or Soxhlet extraction times.

All extractables were observed in the PVC and EVA samples analysis after microwave extraction. The fewest number of extractables was observed in the PVC and LDPE samples analysis after microwave extraction.