

Sampling, Identification and Characterization of Microplastics Release from Polypropylene Baby Feeding Bottle during Daily Use

Dunzhu Li^{1,2}, Luming Yang^{*1,2}, Rachel Kavanagh¹, Liwen Xiao^{2,3}, Yunhong Shi^{1,2}, Daniel K. Kehoe¹, Emmet D. Sheerin^{1,4}, Yurii K. Gun'ko^{4,5}, John J. Boland^{1,4}, Jing Jing Wang¹

¹AMBER Research Centre and Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN), Trinity College Dublin ²Department of Civil, Structural and Environmental Engineering, Trinity College Dublin ³TrinityHaus, Trinity College Dublin ⁴School of Chemistry, Trinity College Dublin ⁵BEACON, Bioeconomy SFI Research Centre, University College Dublin

* These authors contributed equally

Corresponding Authors

Liwen Xiao **John J. Boland** **Jing Jing Wang**
 liwen.xiao@tcd.ie jboland@tcd.ie jjwang@tcd.ie

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Materials

Name	Company	Catalog Number	Comments
AFM cantilever	NANOSENSORS	PPP-NCSTAUd-10	To obtain three-dimensional topography of PP MPs
Atomic force microscope	Nova	NT-MDT	To obtain three-dimensional topography of PP MPs
Detergent	Fairy Original	1015054	To clean the brand-new product
Gold-coated polycarbonate-PC membrane filter-0.8 um	APC, Germany	0.8um25mmGold	To collect microplastics in water and benefit for Raman test
Gwyddion software	Gwyddion	Gwyddion2.54	To determine MPs topography
ImageJ software	US National Institutes of Health	No, free for use	To determine MPs size
Microwave oven	De'longhi, Italy	815/1195	Hot water preparation
Optical microscope, x100	Mitutoyo, Japan	46-147	To find and observe the small MPs
Raman spectroscopy	Renishaw	InVia confocal Raman system	To chemically determine the PP-MPs
Shaking bed-SSL2	Stuart, UK	51900-64	To mimic the mixing process during sample preparation
Standard polystyrene microplastic spheres	Polysciences, Europe	64050-15	To validate the robustness of current protocol
Transfer pipette with glass tip	Macro, Brand	26200	To transfer water sample to glass filter
Ultrasonic cleaner	Witeg, Germany	DH.WUC.D06H	To clean the glassware
Vacuum pump	ILMVAC GmbH	105697	To filter the water sample