

# Novel calibration approach for particle size analysis of microplastics by Laser Ablation Single Particle-ICP-MS

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Table S1: LA and ICP-MS measurement parameters

| ImageGEO193                        |                                                                                                 | Nexion5000             |                              |
|------------------------------------|-------------------------------------------------------------------------------------------------|------------------------|------------------------------|
| Laser Fluence (J/cm <sup>2</sup> ) | 1.4                                                                                             | RF power (W)           | 1600                         |
| Spot size (square shape) (µm)      | 15 x 15 for MPs<br>10 x 10 , 12 x 12,<br>14 x 14, 16 x 16,<br>18 x 18, 20 x 20<br>for standards | Ar make-up gas (L/min) | 1.25                         |
| Chamber He flow (ml/min)           | 200                                                                                             | Cool-gas flow (L/min)  | 16                           |
| Sniffer He flow (ml/min)           | 250                                                                                             | Detected Isotopes      | <sup>13</sup> C <sup>+</sup> |
| Shots per position                 | 1                                                                                               | Dwell time (µs)        | 500                          |



Figure S1: PS 4.5 µm particles on the substrate



*Figure S2: PS 3  $\mu\text{m}$  particles on the substrate*



*Figure S3: PS 2  $\mu\text{m}$  particles on the substrate*