

Supplementary Information

Erosion of plastics in turbid (sandy) water: Quantitative assessment for marine environments and formation of microplastics

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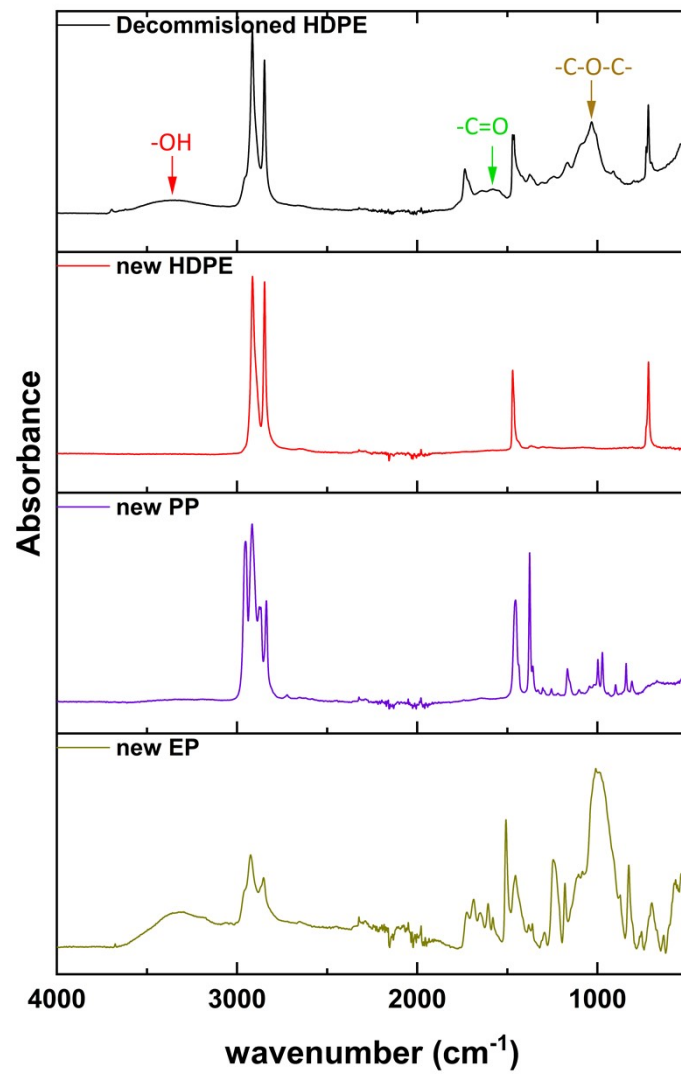


Figure S1. FTIR spectrum of the pristine synthetic polymers and selected decommissioned HDPE polymer specimens.

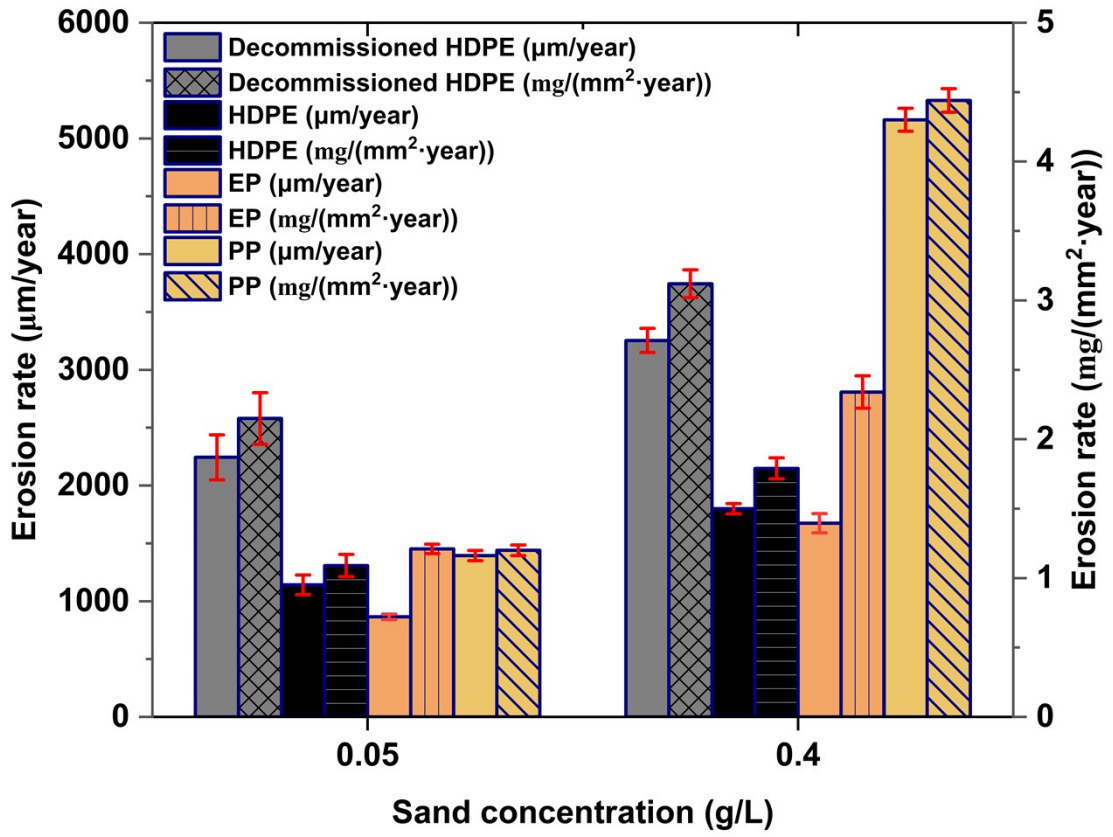


Figure S2. Experimentally measured erosion rates of the synthetic polymers (PP, HDPE, EP) and decommissioned HDPE

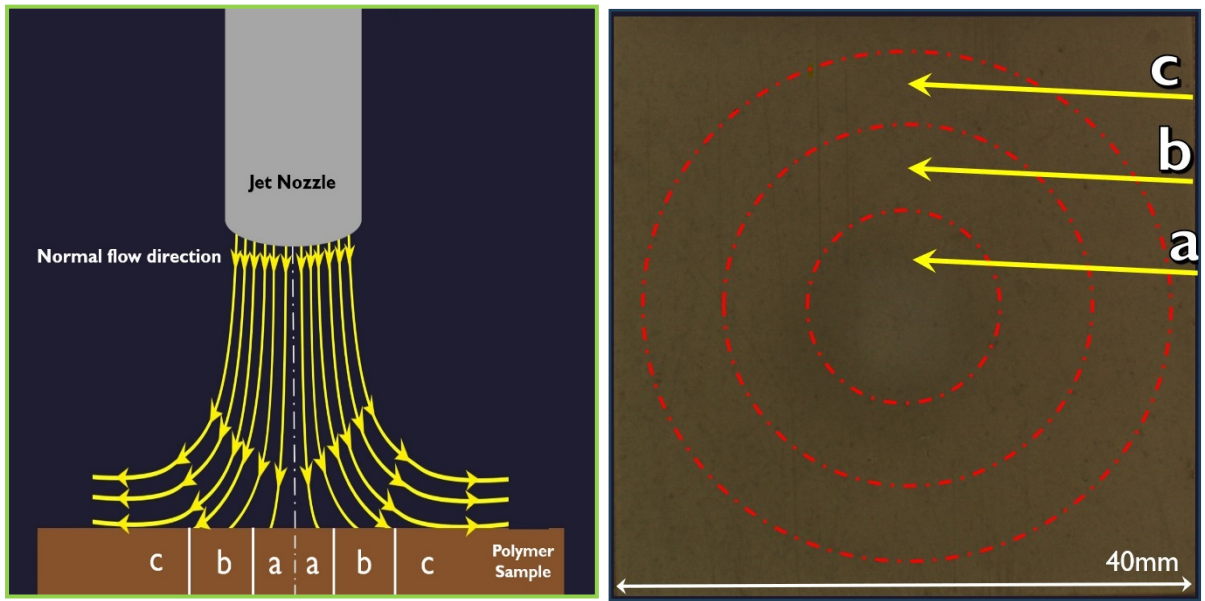


Figure S3. Flow trajectories while impacting a polymer sample at vertical angle (Left). Optical top view of an eroded surface of polymer sample showing the erosion zones.

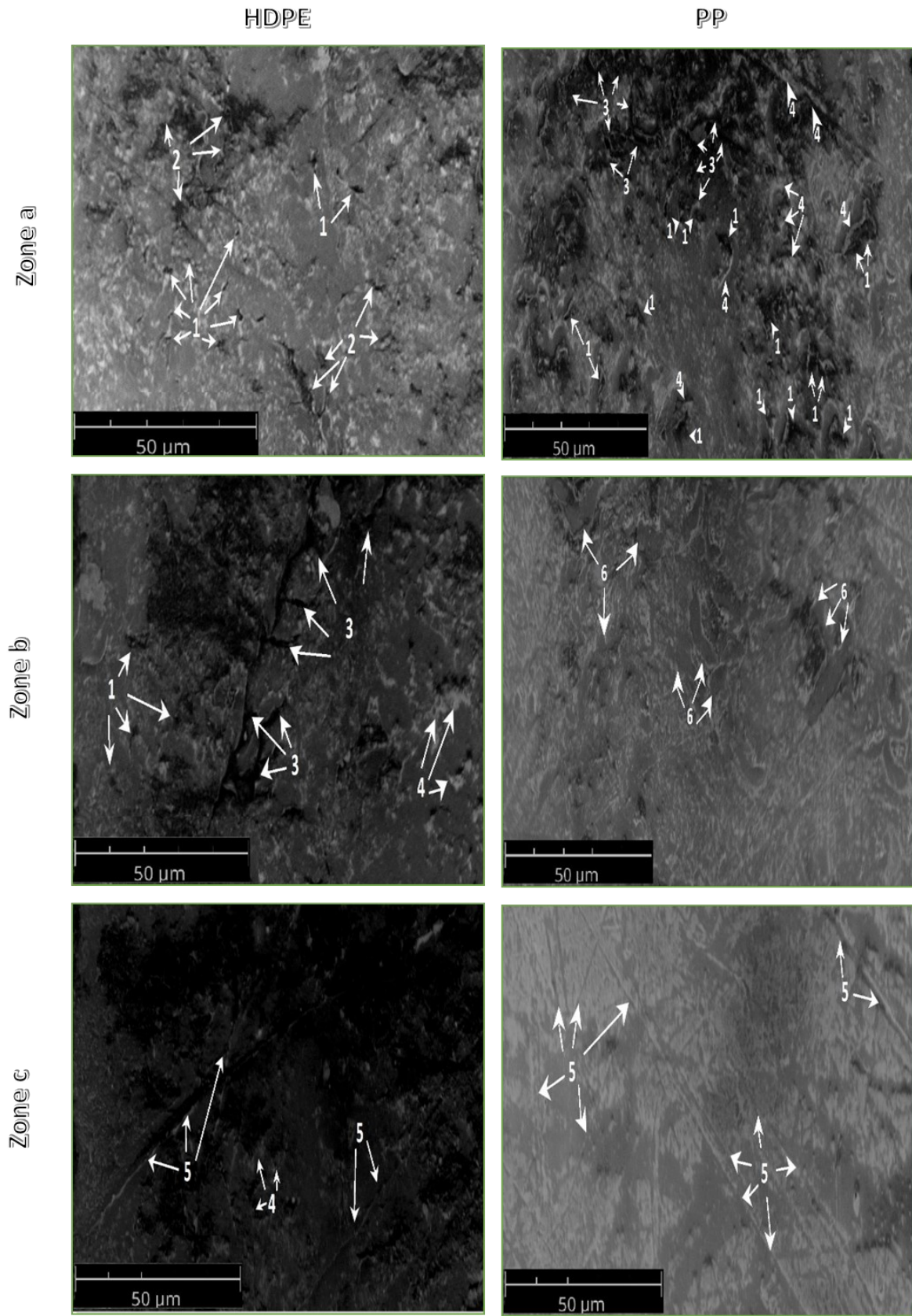


Figure S4. SEM images of high-density polyethylene and polypropylene.

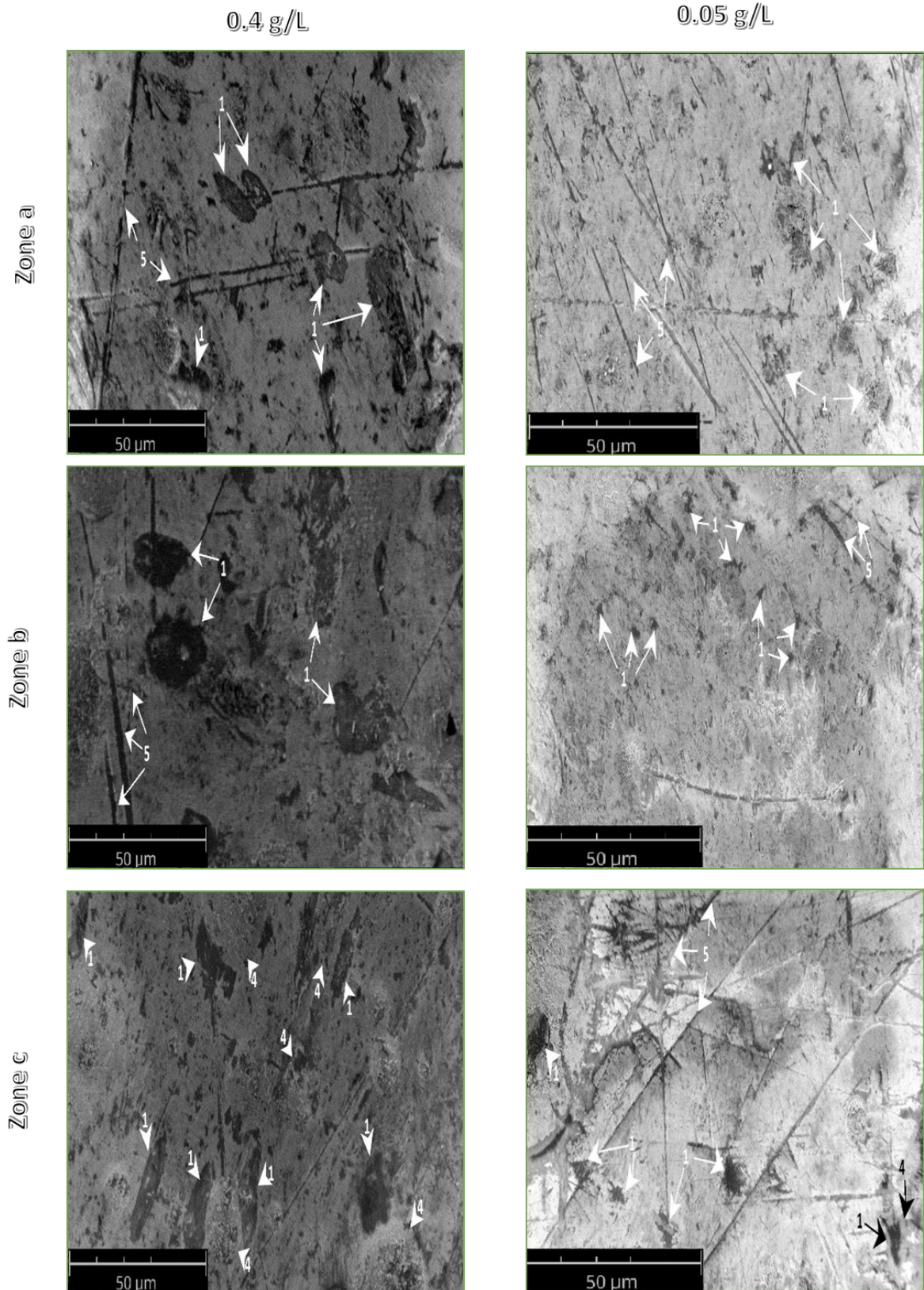


Figure S5. SEM images of high-build amine-cured epoxy thermoset (EP). Sand= 0.4 and 0.05 g/L, shape: Rounded + sub angular, $V=2$ m/s, Angle= 90° . 1-craters, 2- micro-cracks, 3- interlinked cracks, 4-rims, 5- long scratches, 6- detached fragment.