Electronic Supplementary Material (ESI) for Polymer Chemistry

Supporting Information for

Magnetically Driven Super Durable Superhydrophobic Polyester Materials for Oil/Water Separation

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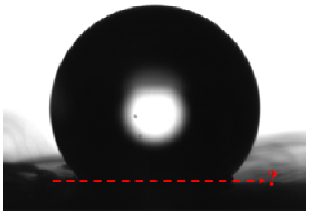

Figure S1. Typical image of a water drop on the superhydrophobic polyester materials.

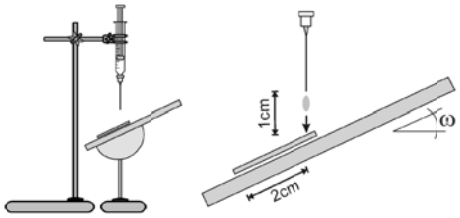

Figure S2. Principle setup employed for measuring WSA (ω).

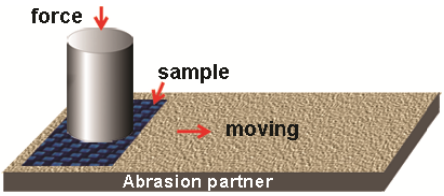

Figure S3. Schematic illustration of the abrasion test employed to evaluate the mechanical durability of the felts.

Movie S1. Wettability of uncoated and coated polyester material. A video illustrated interactions of water (7 μL) and petrol (7 μL) drops with uncoated and coated polyester materials, respectively.

Movie S2. Water drops bounce off the superhydrophobic polyester material after 200 cycles of abrasion using sandpaper as the abrasion partner, water jet test, scratching with a scalpel and adhesion with tape. This video highlights the excellent superhydrophobicity after various mechanical stability tests.

Movie S3. Oil/water separation of the superhydrophobic polyester materials. This video highlights the high oil/water separation efficiency and the magnetically driven process. Water and oil were colored with methylene blue and oil red O, respectively.

Movie S4. Superhydrophobicity and oil/water separation of a piece of the coated polyester material in larger size (20 × 50 cm). This video highlights the excellent superhydrophobicity and high oil/water separation efficiency of the larger samples.