Electronic Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting information

Facile fabrication of superhydropobic coatings with polyimide particles using a reactive electrospraying process

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Fig. S1 The cross-sectional TEM image of the microtoming epoxy resin containing dimpled PI particles.

Fig. S2 Optical microscope images of microdrops: (a) 0 min; (b) 5 min; (c) 30 min; (d) 50 min. Operating parameter : PAA concentration 10 wt%, flow rate 0.5 ml/h, applied voltage 8.0 kV, collector temperature 30 ^{o}C.

Fig. S3 IR spectrum of fully imidized PI film and PI particles prepared at each stage of thermal imidization:(a) reference PI film; (b) PI particles on heated substrate at 200 ^{o}C; (c) cured PI particles at 300 ^{o}C.

Fig. S4 SEM images of deposition of PI particles as coating on ITO glass with different particle size: (a, c) 0.2 mLh^{-1}; (b, d) 0.5 mLh^{-1}. Operation parameter: PAA concentration 10 wt%, applied voltage 12.8 kV and 14.0 kV, respectively.

Fig. S5 Dynamic contact angle of PI particles coating layer: (a, b, c) advancing contact angle; (d, e, f) receding contact angle.

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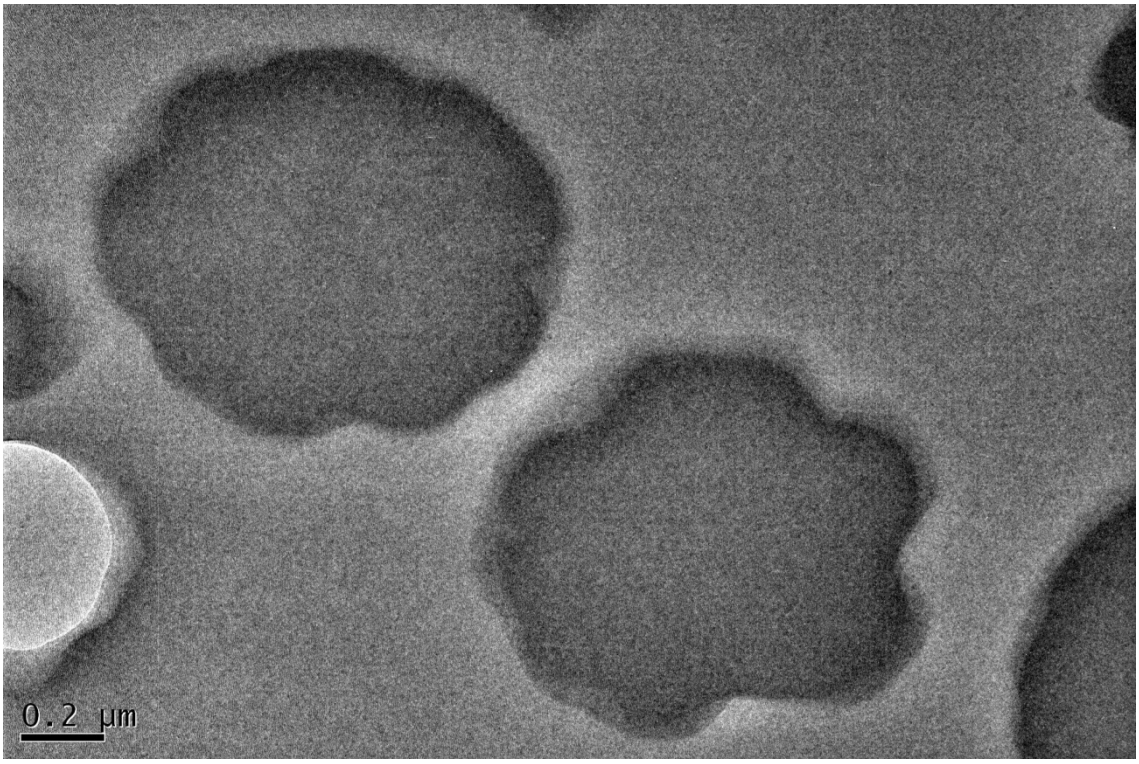
Fig. S1 TEM image of the cross-section of PI particles with dimple morphology.



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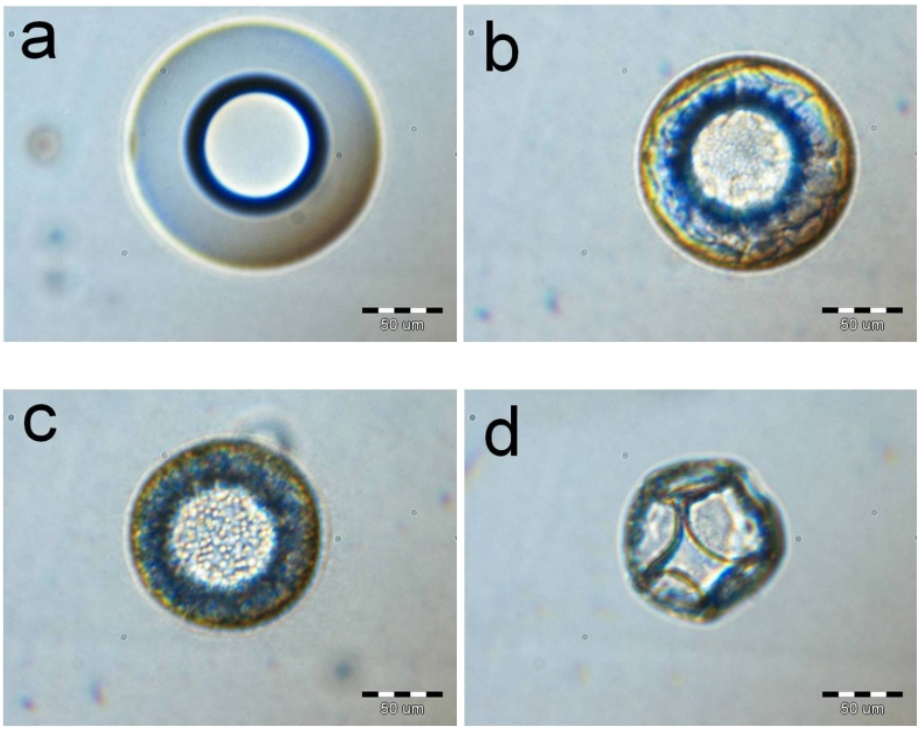

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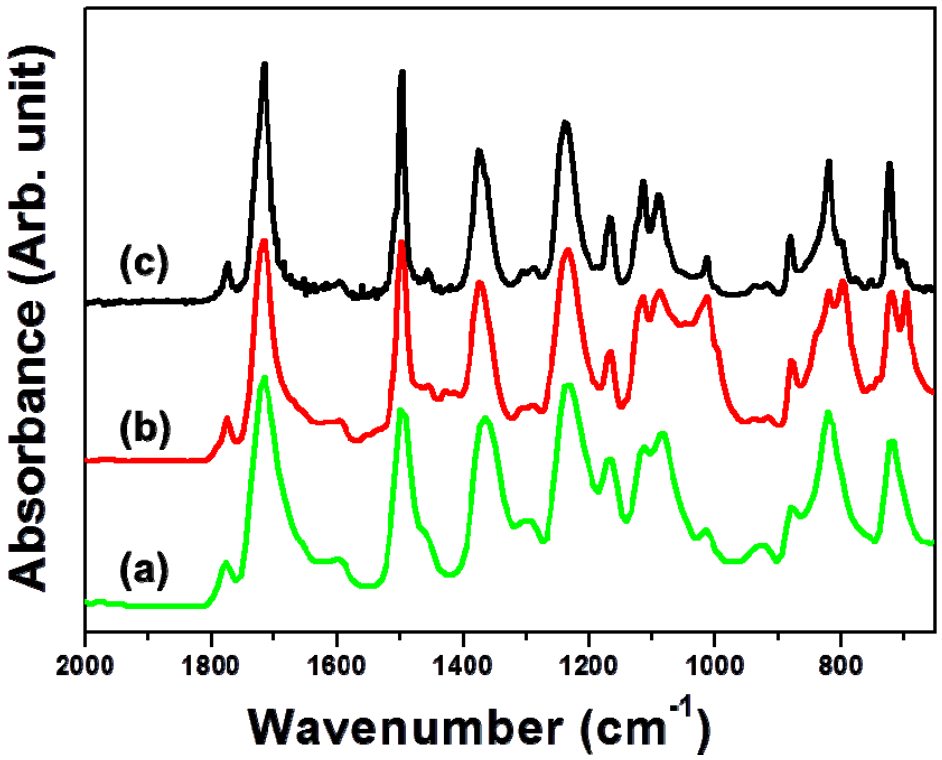

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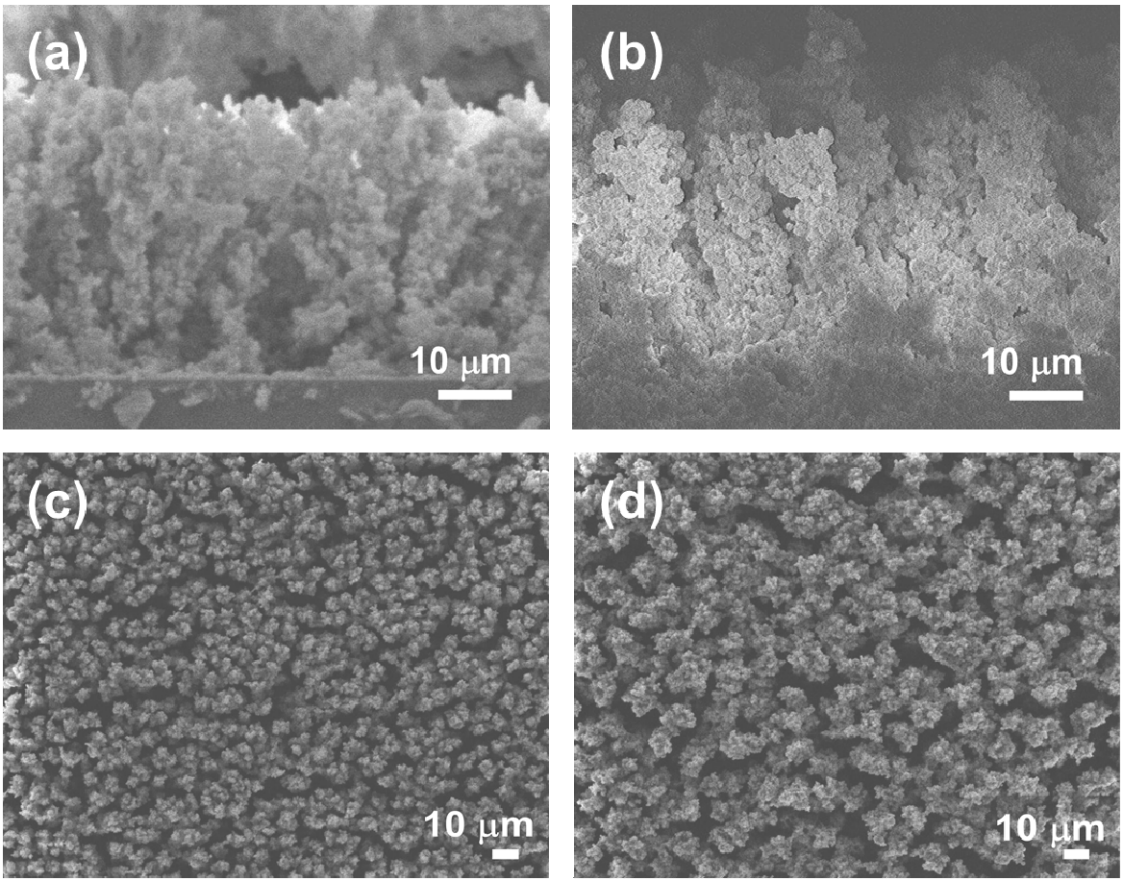

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