

## Electronic Supplementary Information

### Development of Sol-gel processed Semi-transparent and Self-cleaning Superhydrophobic Coatings

Sanjay S. Latthe <sup>1)</sup>, C. Terashima <sup>1)</sup>, K. Nakata <sup>1)</sup> Munetoshi Sakai <sup>2)</sup>, Akira Fujishima <sup>\*1)</sup>

<sup>1)</sup> Photocatalysis International Research Center, Research Institute for Science & Technology, Tokyo University of Science, Noda, Chiba, 278-8510, Japan.

<sup>2)</sup> Photocatalyst group, Kanagawa Academy of Science and Technology, KSP East 412,  
3-2-1 Sakado, Takatsu-ku, Kawasaki, Kanagawa 213-0012, Japan.

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**Fig. S1** Surface roughness of the coatings prepared from different deposition times.

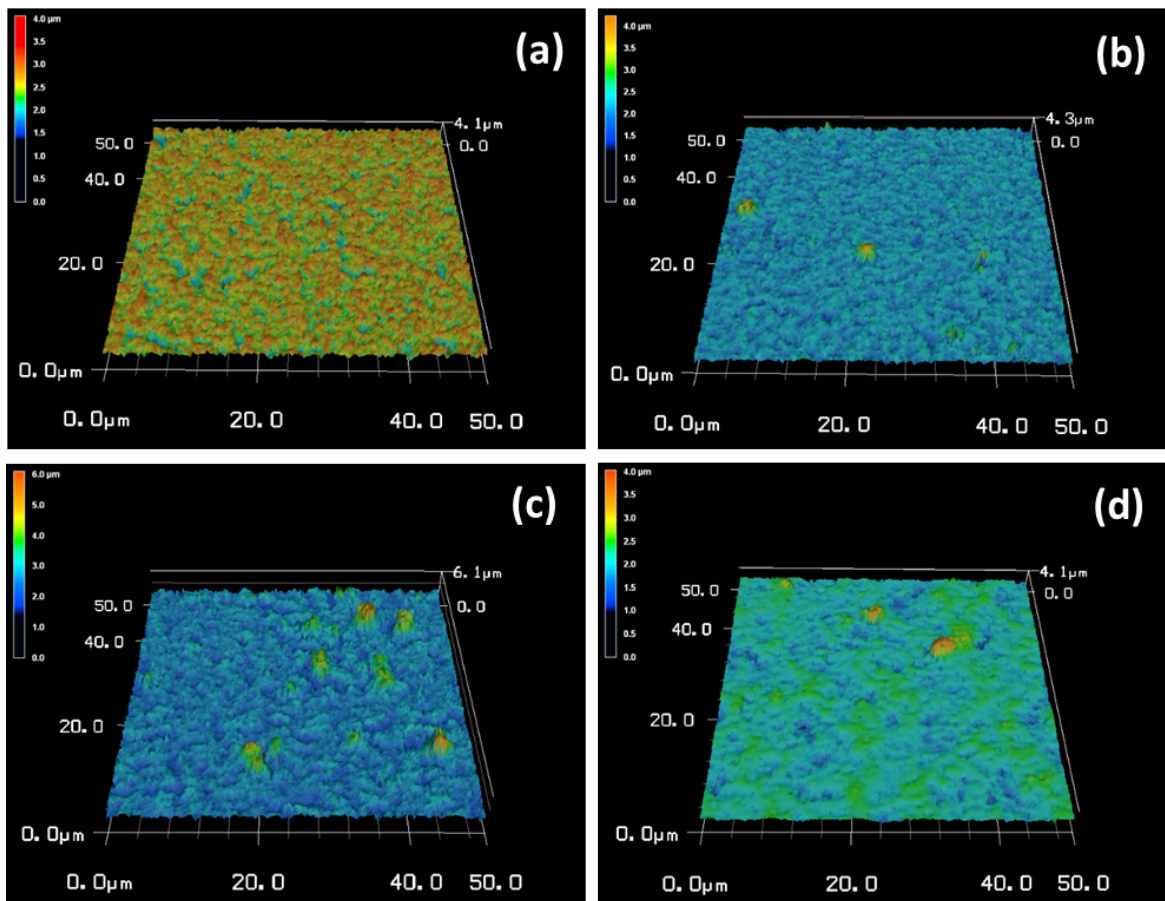
**Fig. S2** Surface roughness of the coatings prepared from different vol. % of PMMA in silica.

**Fig. S3** FTIR spectra of MTMS, PMMA and MTMS-PMMA composite.

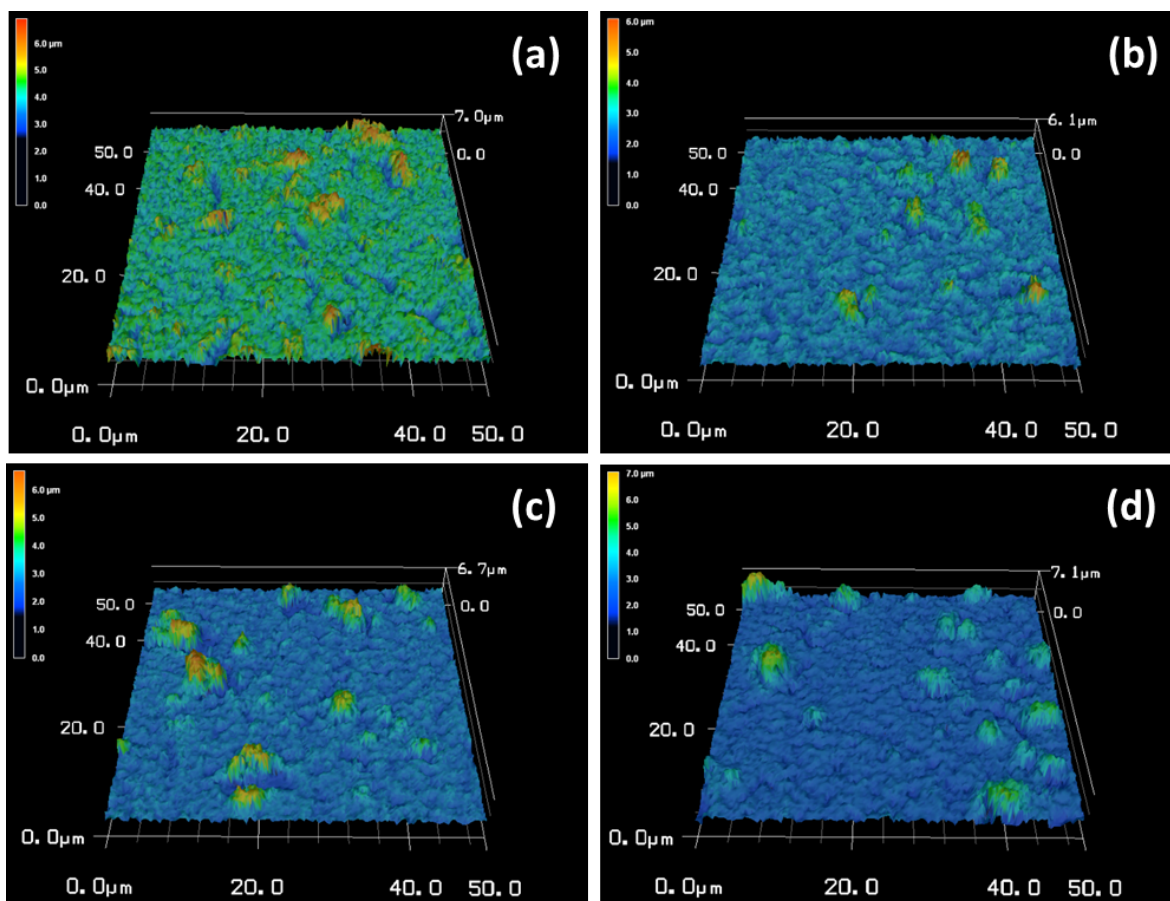
**Fig. S4** EDX spectra of the coating prepared from 2 vo. % of PMMA in silica.

**Fig. S5** SEM images of the coatings from two different regions after water jet impact test.

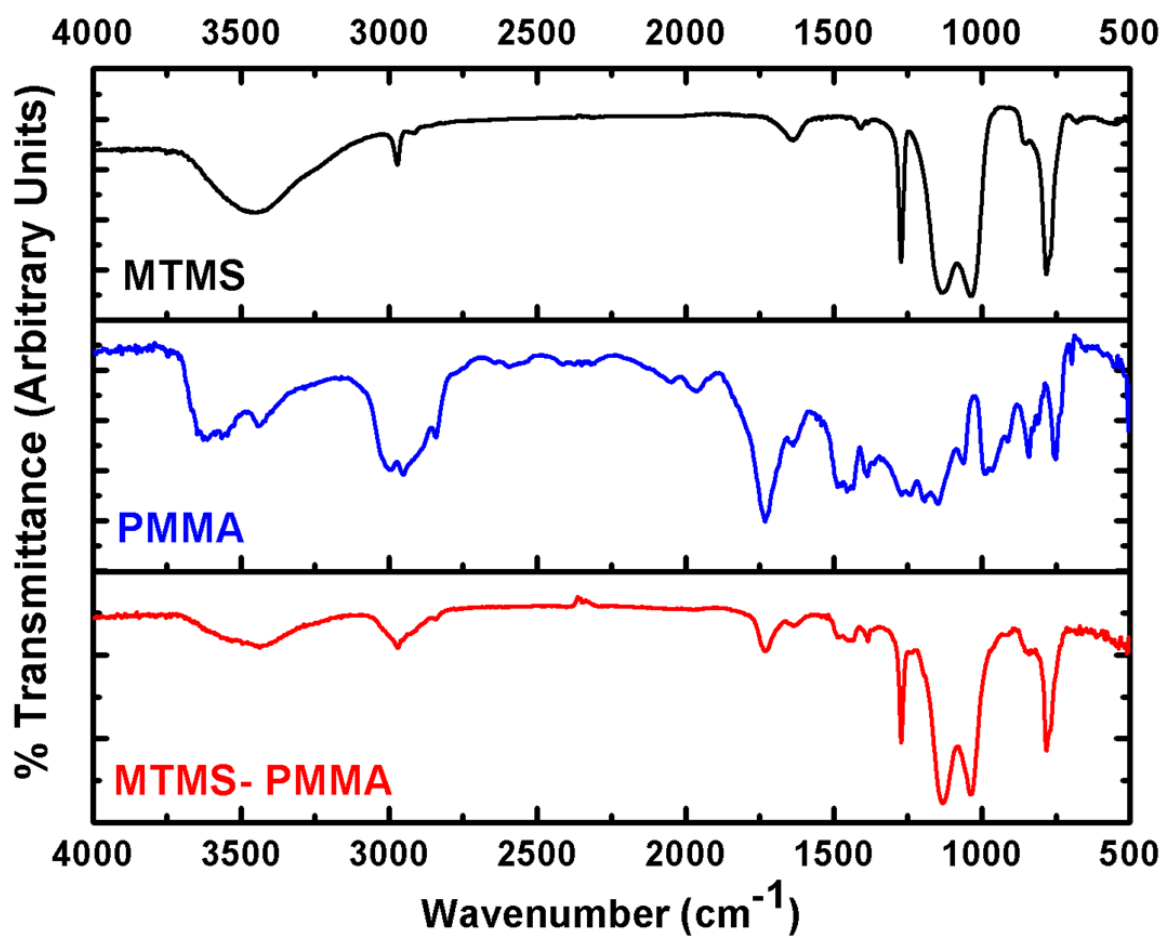
**Fig. S6** Scratch resistance of the coatings prepared from different vol. % of PMMA in silica.



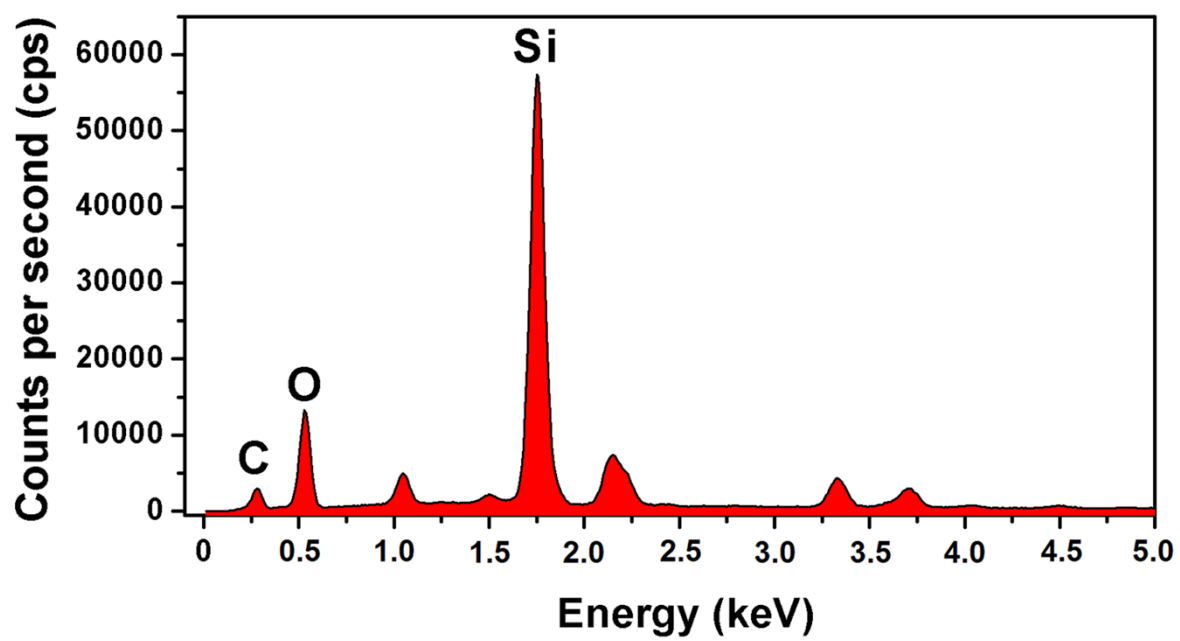
**Figure S1:** Surface roughness (R) of the coatings prepared from 2 vol. % of PMMA in silica at deposition time of (a) 1 min (R~ 166 nm), (b) 15 min (R~ 201 nm), (c) 30 min (R~ 376 nm), and (d) 45 min (R~185 nm).



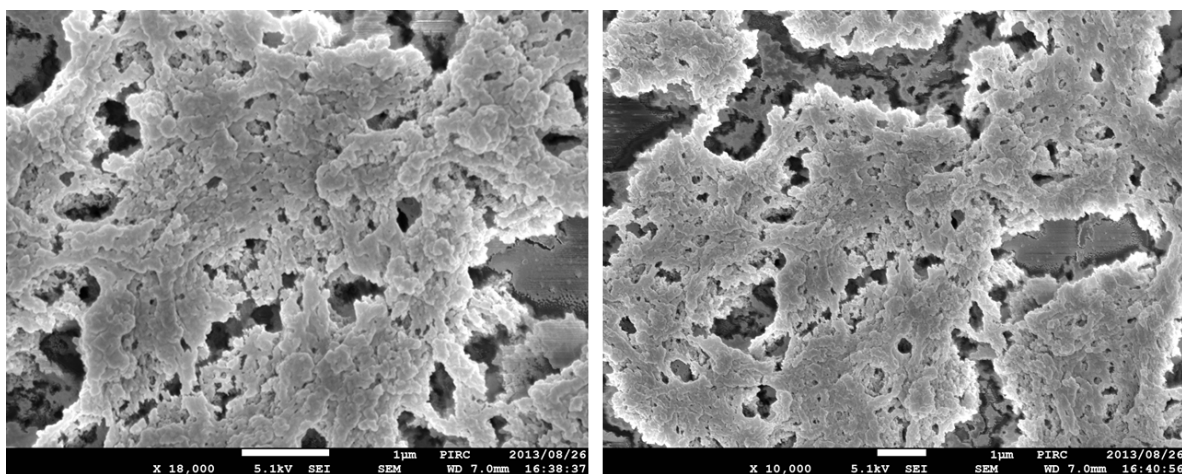
**Figure S2:** Surface roughness (R) of the coatings prepared at 30 minutes of deposition time from (a) 0 vol. % (R~ 318 nm), (b) 2 vol. % (R~ 376 nm), (c) 4 vol. % (R~ 345 nm), and (d) 6 vol. % (R~ 310nm) of PMMA in silica.



**Figure S3:** FTIR spectra of MTMS, PMMA and MTMS-PMMA composite.

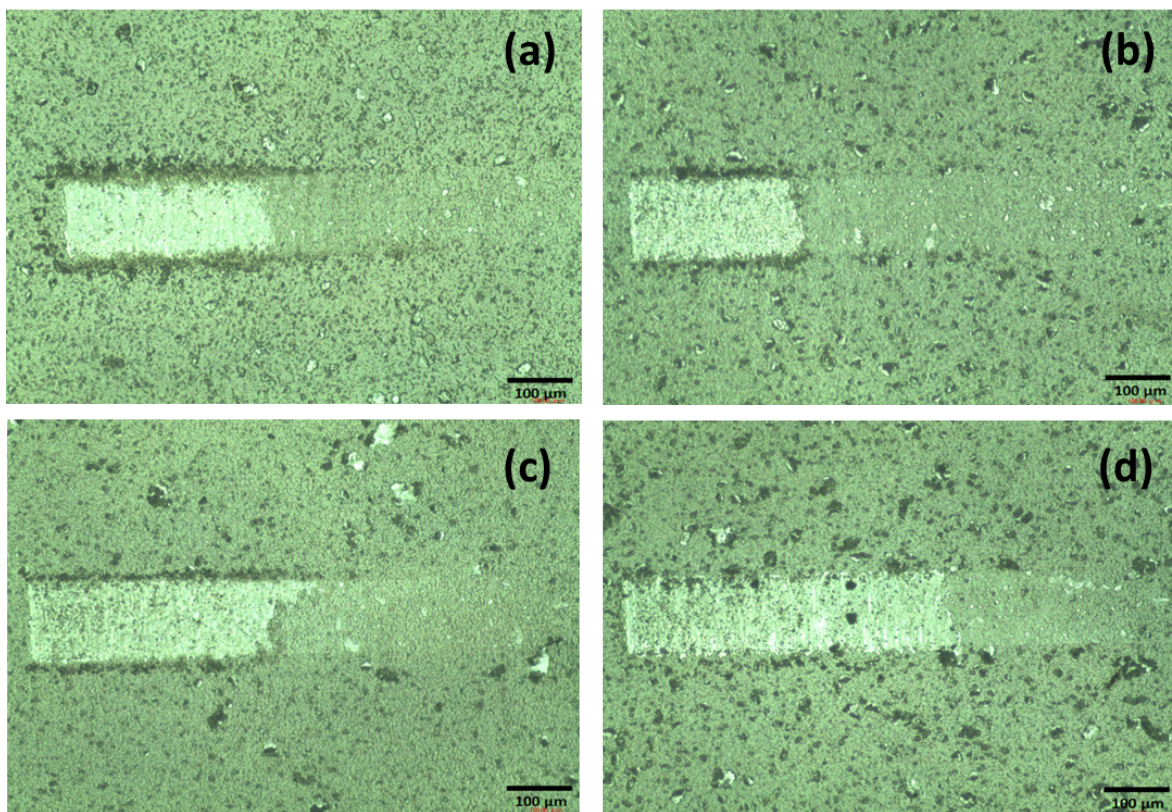


**Figure S4:** EDX spectra of the coating prepared from 2 vo. % of PMMA in silica.



**Figure S5:** SEM images of the coatings from two different regions after water jet impact test, which showed no substantial change in surface morphology.





**Figure S6:** Scratch resistance of the coatings prepared at 30 minutes of deposition time from (a) 0 vol. % ( $F \sim 1.1$  mN), (b) 2 vol. % ( $F \sim 2.8$  mN), (c) 4 vol. % ( $F \sim 1.9$  mN), and (d) 6 vol. % ( $F \sim 1.6$  mN) of PMMA in silica.