

## Supporting Information

### **Harnessing Superhydrophobic Coatings for Enhancing Surface Corrosion**

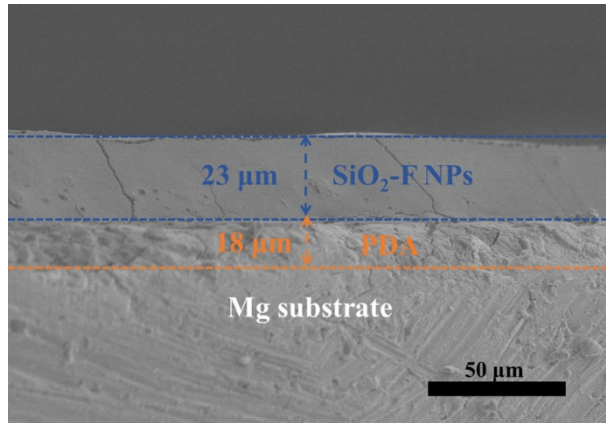
#### **Resistance of Magnesium Alloys**

*Rong Gu,<sup>a</sup> Jie Shen,<sup>a</sup> Qing Hao,<sup>a</sup> Jinghong Wang,<sup>a</sup> Dan Li<sup>a,b,\*</sup>, Liang Hu<sup>c,\*</sup> and Hong Chen<sup>a</sup>*

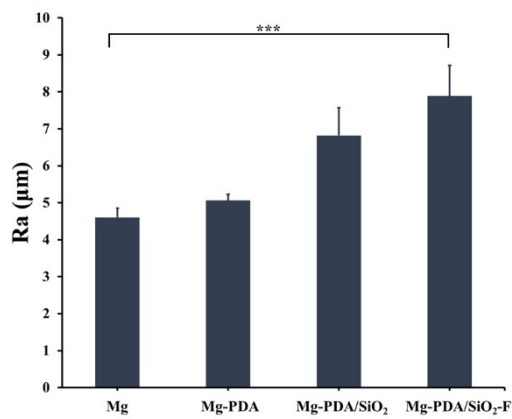
<sup>a</sup> State and Local Joint Engineering Laboratory for Novel Functional Polymeric Materials, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou 215123, P. R. China.

<sup>b</sup> Jiangsu Biosurf Biotech Co., Ltd. Suzhou 215123, P. R. China

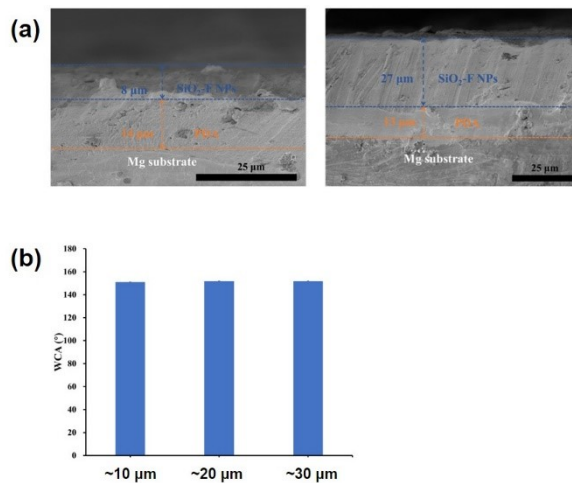
<sup>c</sup> State Key Laboratory of Radiation Medicine and Protection, School for Radiological and Interdisciplinary Sciences (RAD-X) and Collaborative Innovation Center of Radiation Medicine of Jiangsu Higher Education Institutions, Suzhou 215123, P. R. China



**Figure S1.** Cross-sectional SEM image of the Mg-PDA/SiO<sub>2</sub>-F



**Figure S2.** The roughness of specimens. Statistical analysis was performed using the Excel t-test to confirm significant differences. \*\*\*P<0.001.



**Figure S3.** (a) The SEM images, (b) water contact angle of specimens with different thickness of SiO<sub>2</sub> layers.