Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting information：

Robust Multi-functional Slippery Surface with Hollow ZnO Nanostructures

Haifeng Fan,[a,b] Zhiguang Guo*[a,b]

[a]*Hubei Collaborative Innovation Centre for Advanced Organic Chemical Materials and Ministry of Education Key Laboratory for the Green Preparation and Application of Functional Materials, Hubei University, Wuhan 430062, People's Republic of China*

[b]*State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, People's Republic of China.*

**E-mail: zguo@licp.cas.cn; Fax: +86-931-8277088; Tel.: +86-931-4968105*

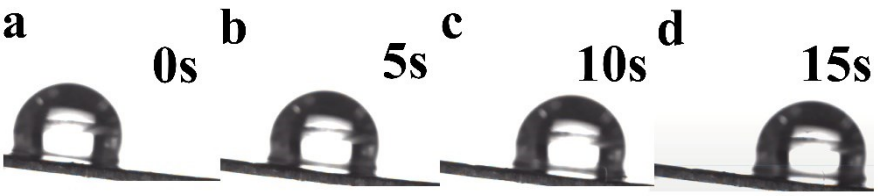

Fig. S1 (a-d) Dynamic behavior of a water droplet on the slippery Zn surface with a low sliding angle (<10°).

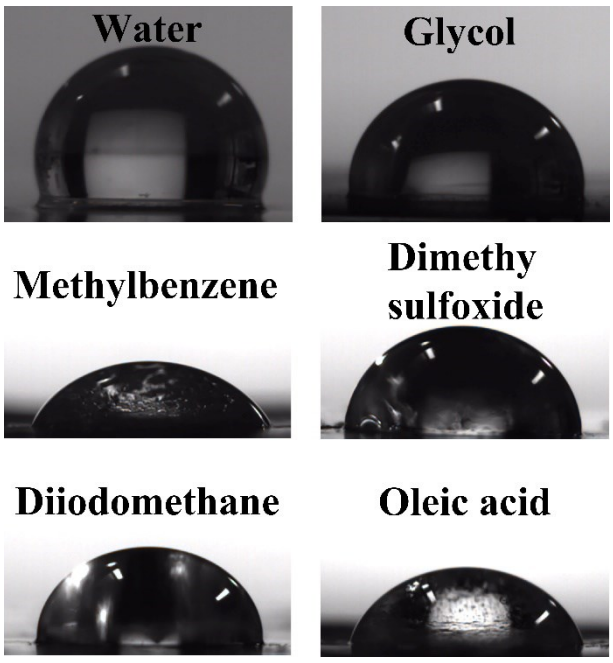

Fig. S2 Contact angles (CA) six liquid droplets (water, glycol, methylbenzene, dimethyl sulfoxide, diiodomethane and oleic acid) on the slippery Zn surface.

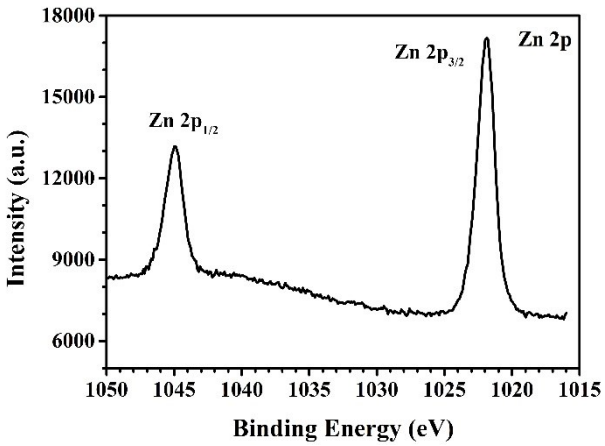

Fig. S3 XPS results of Zn 2p of the FAS modified zinc surface.

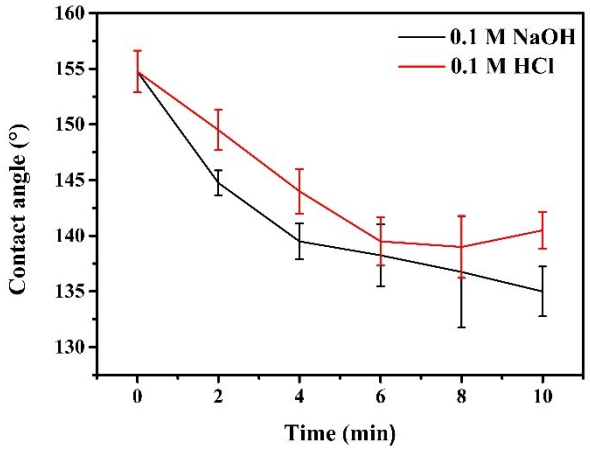

Fig. S4 Contact angle of water droplet on the superhydrophobic Zn surface after immersing in 0.1 M HCl and NaOH solution.

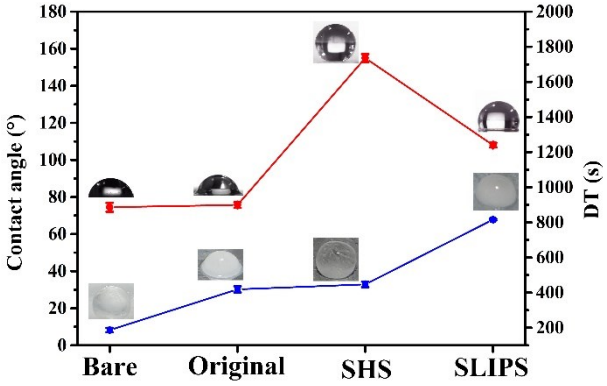

Fig. S5 Contact angle of water on the bare, original covered with a uniform oil layer, superhydrophobic surface (SHS) and slippery Zn surface (SLIPS) and delay time (DT) of ice formation on these surfaces.

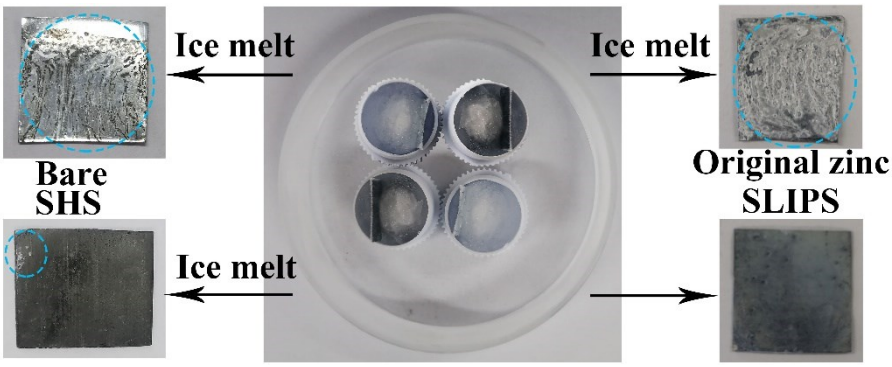

Fig. S6 Corrosion degree of bare, original covered with a uniform oil layer, superhydrophobic surface (SHS) and slippery zinc surface (SLIPS) after ice melt.