

Support Information

Daheng Wang^{1,3} and Zhiguang Guo^{1,2*}

a. State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou, People's Republic of China

b. 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, People's Republic of China.

c. University of Chinese Academy of Sciences, Beijing 100049, People's Republic of China

*. Author. Tel.: 0086-931-4968105; Fax: 0086-931-8277088. Email address: zguo@licp.cas.cn (Guo)

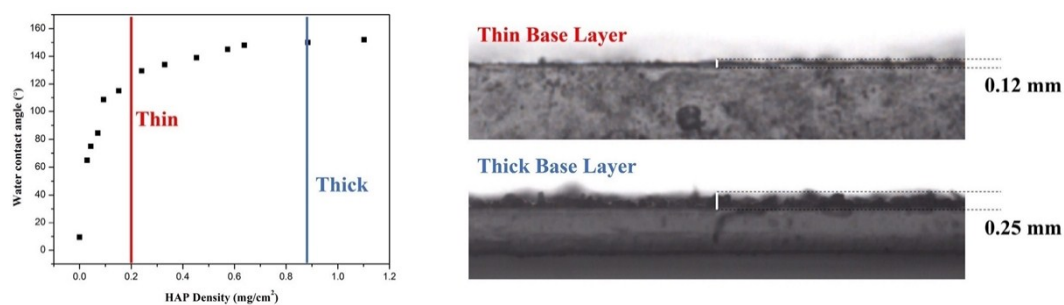


Fig. S1: The water contact angles of different densities for HAP base layer were measured. The thicknesses of the chosen density samples were measured

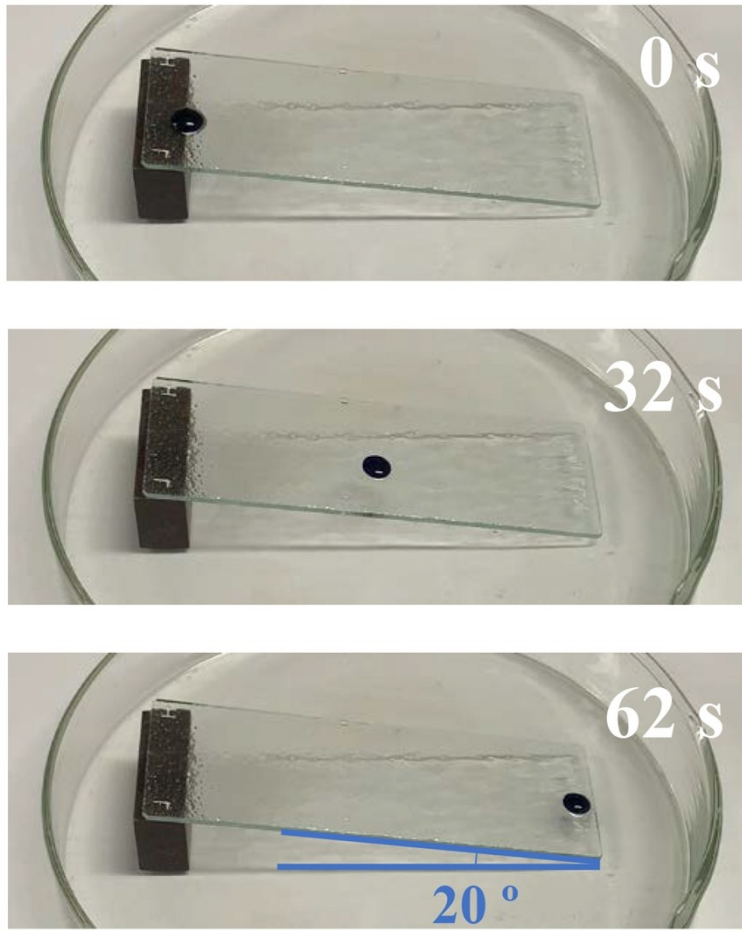


Fig. S2: The slippery tests performed on the thick base layer LIS sample (sliding speed = 1.21 mm/s) with 20 ° tilt.

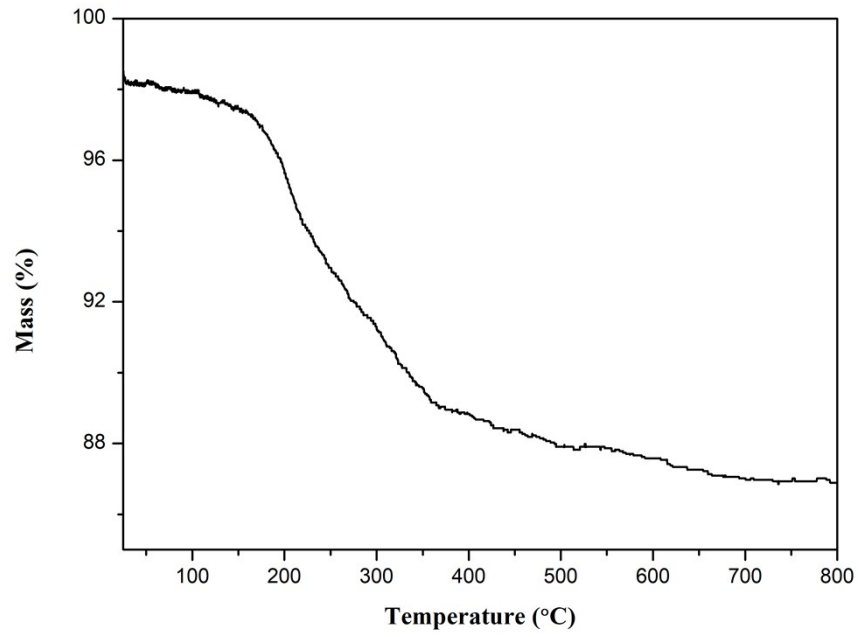


Fig. S3: The TG analyses of content form HAP base layer.

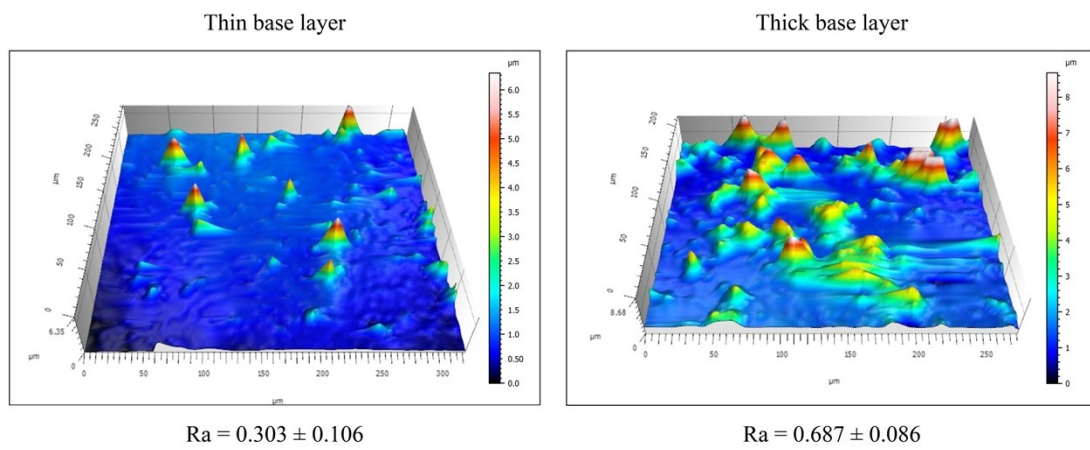


Fig. S4: The roughness experiment of thin and thick HAP base layer LIS coatings.