

Improvement of Load Bearing Capacity of Nanoscale Superlow Friction by Synthesized Fluorinated Surfactant Micelles

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1. Frictional force versus normal load measured in F-surfactant solution with a concentration of 0.75 CMC

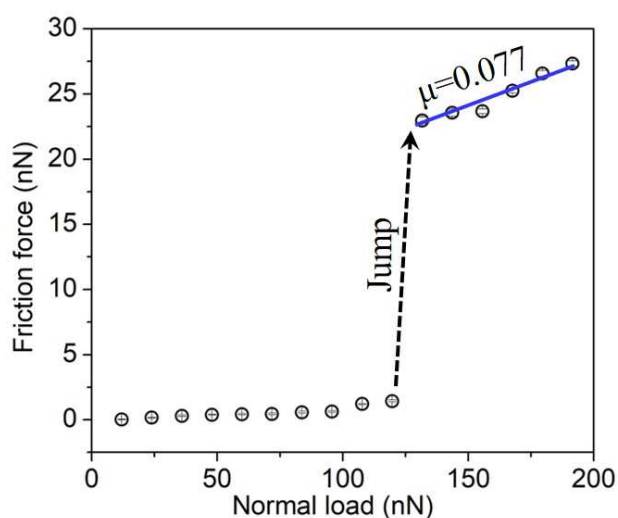


Figure S1 Friction force as a function of normal load between probe and mica substrate across fluorosurfactant solution (0.75 CMC). The scanning velocity was set as 5000 nm/s. The blue line is the linear fitting of these points when the normal load is greater than 125 nN.

2. Friction forces between bare probe and mica substrate measured across pure water

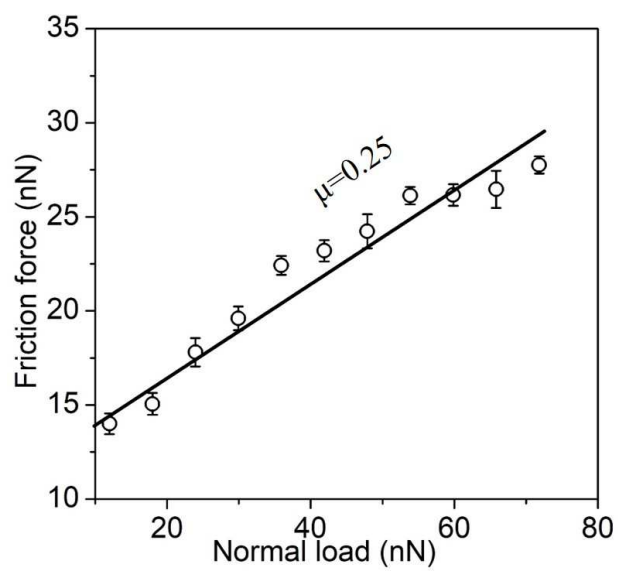


Figure S2 Friction force as a function of normal load between bare probe and mica across pure water with a scanning speed of 5000 nm/s. The black line is the linear fit of these points, giving a friction coefficient of $\mu = 0.25$.