

Dynamic enhancement in adhesion forces of truncated and nanosphere tips on substrates

Hongjun Zhou^{a, †}, Quan Xu^{a, †}, Shaowei Li^{a, †}, Yanjun Zheng^a, Xu Wu^a, Chaokang Gu^c, Yusheng Chen^d, Jian Zhong^{b, *}

^a State Key Laboratory of Heavy Oil Processing, China University of Petroleum (Beijing), 102249, China

^b College of Food Science & Technology, Shanghai Ocean University, Shanghai 201306, China

^c EnerVault Corporation, 1244 Reamwood avenue, Sunnyvale, California, 94089, USA

^d Department of Chemistry, University of Akron, Akron 44325, USA

[†] These authors contributed equally to this work.

*Corresponding authors: Jian Zhong

Jian Zhong, College of Food Science & Technology, Shanghai Ocean University, Shanghai 201306, China; E-mail: jzhong@shou.edu.cn, jianzhongpku@hotmail.com.

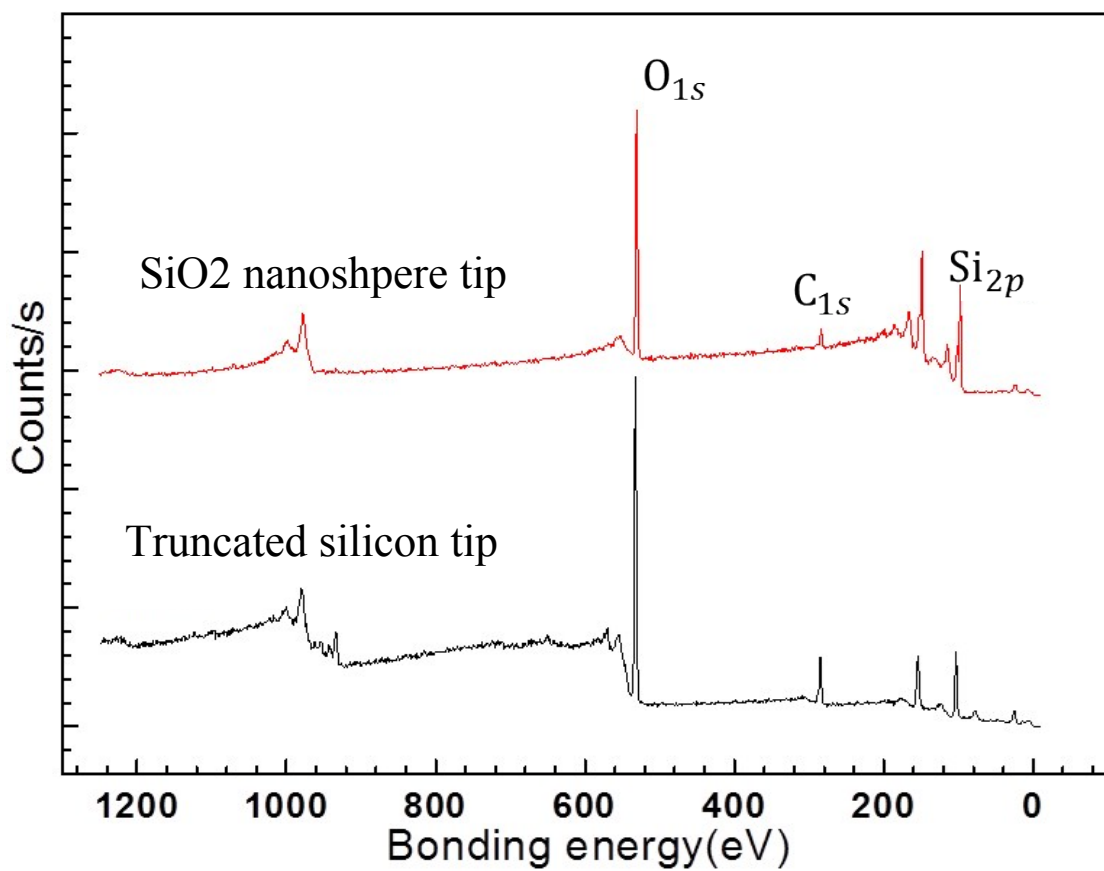


Figure S1: XPS spectra of AFM tips. Red line (top line) is obtained from the SiO₂ nanosphere tip. Black line (bottom line) is obtained from truncated silicon tip.