

Electronic Supplementary Information (ESI)

Local structural changes in graphene oxide layers induced by silver nanoparticles

Prompong Pienpinijtham,^{a,b,c,} Oraporn Wong-u-ra,^b Sanpon Vantasin,^a Yasutaka Kitahama,^a Sanong Ekgasit^b and Yukihiro Ozaki^{a,*}*

^aDepartment of Chemistry, School of Science and Technology, Kwansai Gakuin University, Sanda, Hyogo 669-1337, Japan. E-mail: ozaki@kwansai.ac.jp

^bSensor Research Unit (SRU), Department of Chemistry, Faculty of Science, Chulalongkorn University, Pathumwan, Bangkok 10330, Thailand. E-mail: prompong.p@chula.ac.th

^cNanotec-CU Center of Excellence on Food and Agriculture, Department of Chemistry, Faculty of Science, Chulalongkorn University, Bangkok, 10330, Thailand.

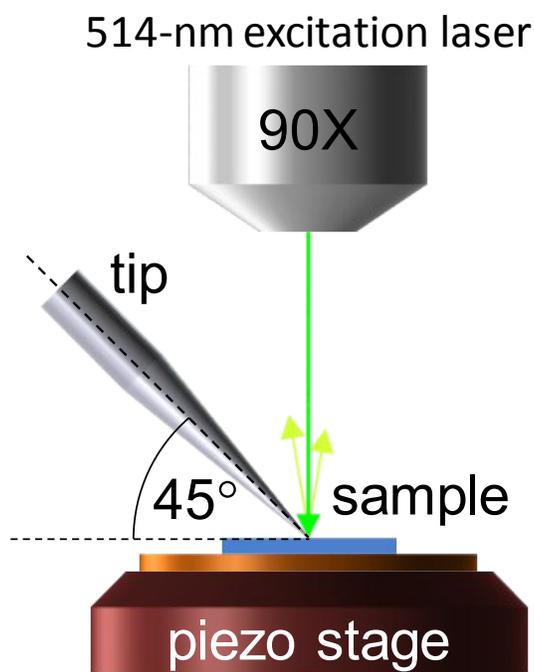


Fig. S1 TERS measurement setup.

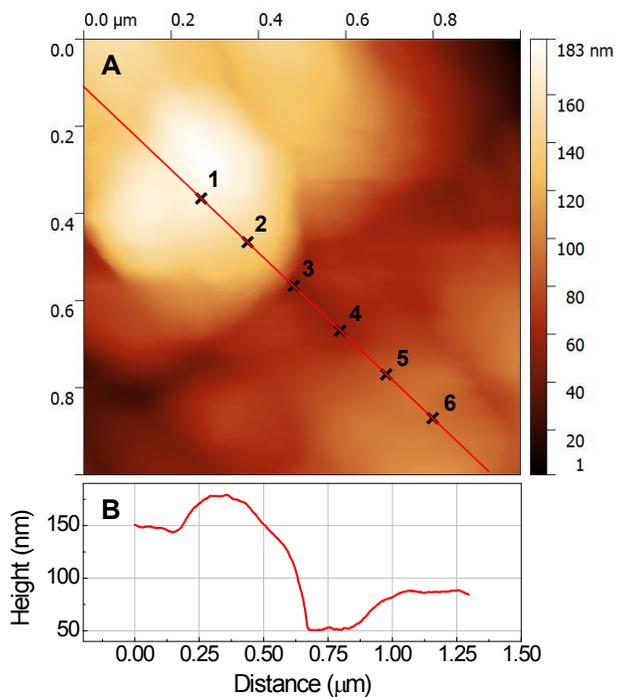


Fig. S2 (A) An AFM image of AGO in Fig. 5A. (B) A cross-section line profile corresponding to a red line in Fig. S2A.

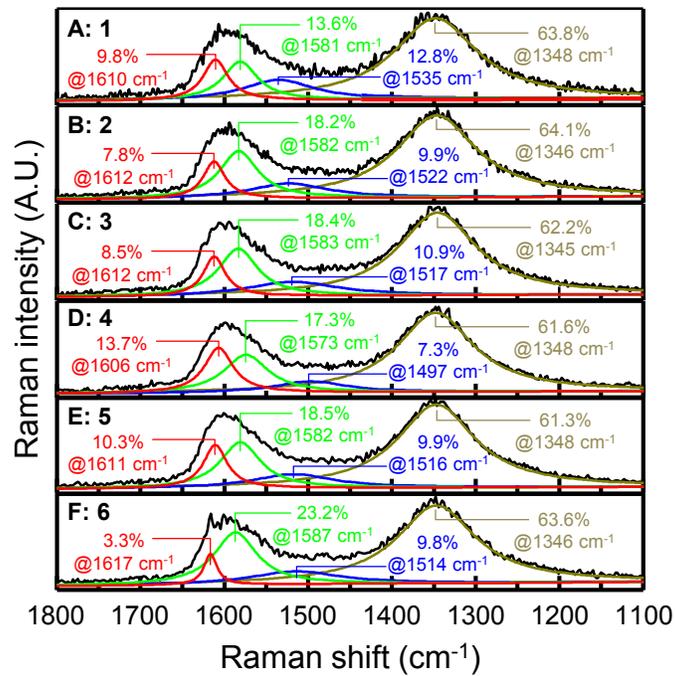


Fig. S3 (A–F) TERS spectra and their four component peaks of AGO obtained from corresponding positions (×) in Fig. 5A.

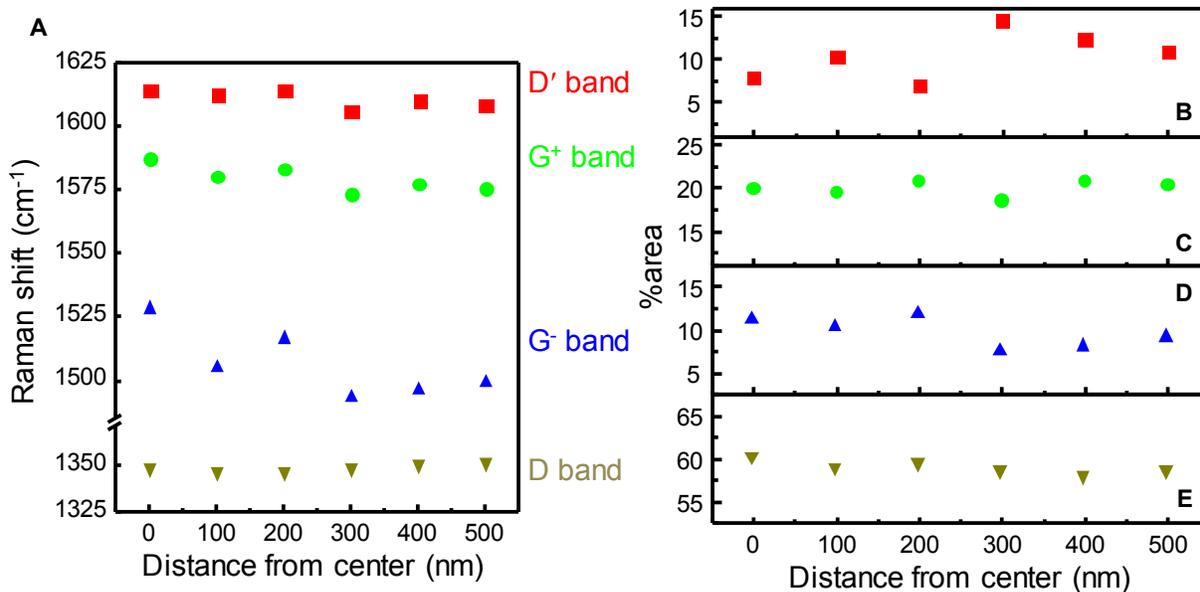


Fig. S4 (A) Plot of the peak positions of D', G⁺, G⁻, and D bands versus distances from the center of AgNP. Plots of the peak area percentages of (B) D', (C) G⁺, (D) G⁻, and (E) D bands versus distances from the center of AgNP. Line profiles of TERS spectra were collected from AGO with 50-nm AgNP.