Bacterial Resistance Control on Mineral Surfaces of Hydroxyapatite and Human Teeth via Surface Charge-Driven Antifouling Coatings

Antoine Venault[a, ‡], *Hui-Shan Yang*[a, ‡], *Yen-Che Chiang*[a], *Bor-Shuinn Lee*[b], *Ruoh-Chyu Ruaan*[a,c], *and Yung Chang*[a,*]

[a]R&D Center for Membrane Technology and Department of Chemical Engineering, Chung Yuan Christian University, Chung-Li, Taoyuan 320, Taiwan

[b]Graduate Institute of Clinical Dentistry, School of Dentistry, National Taiwan University, Taipei, Taiwan

[c]Department of Chemical and Materials Engineering, National Central University, Chung-Li, Taoyuan 320, Taiwan

Corresponding Author

*Yung Chang, E-mail: ychang@cycu.edu.tw, Phone: 886-3-265-4122, Fax: 886-3-265-4199.

ASSOCIATED CONTENT

Stability tests. Figure S1-S3 presents XPS analysis performed after immersing the coated surfaces 3 days (Figure S1), 5 days (Figure S2) and 7 days (Figure S3) in PBS at 37°C. Comparison of spectra highlight that coatings are stable over the period tested.

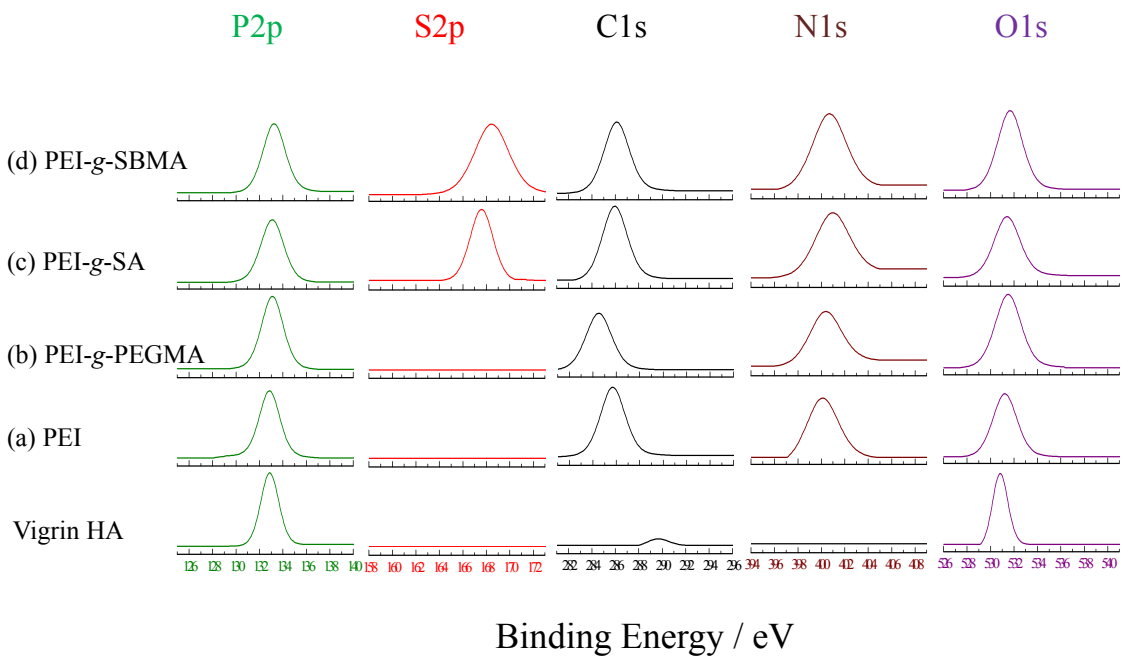

Figure S1. XPS analysis performed after immersing the coated surfaces 3 days in PBS at 37°C.

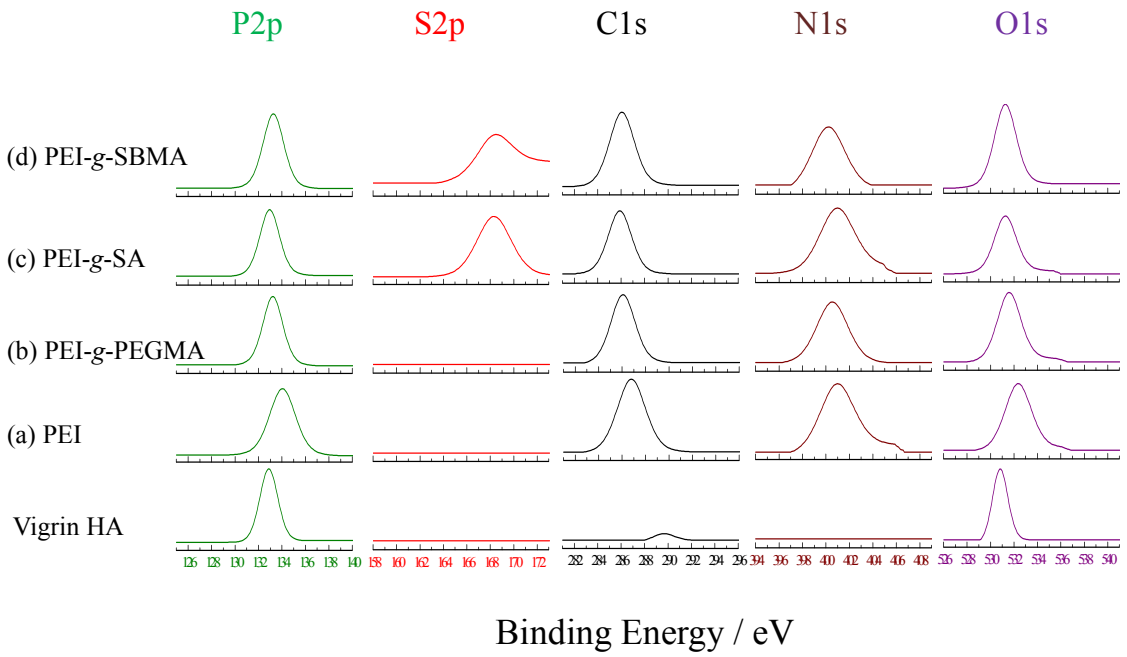

Figure S2. XPS analysis performed after immersing the coated surfaces 5 days in PBS at 37°C.

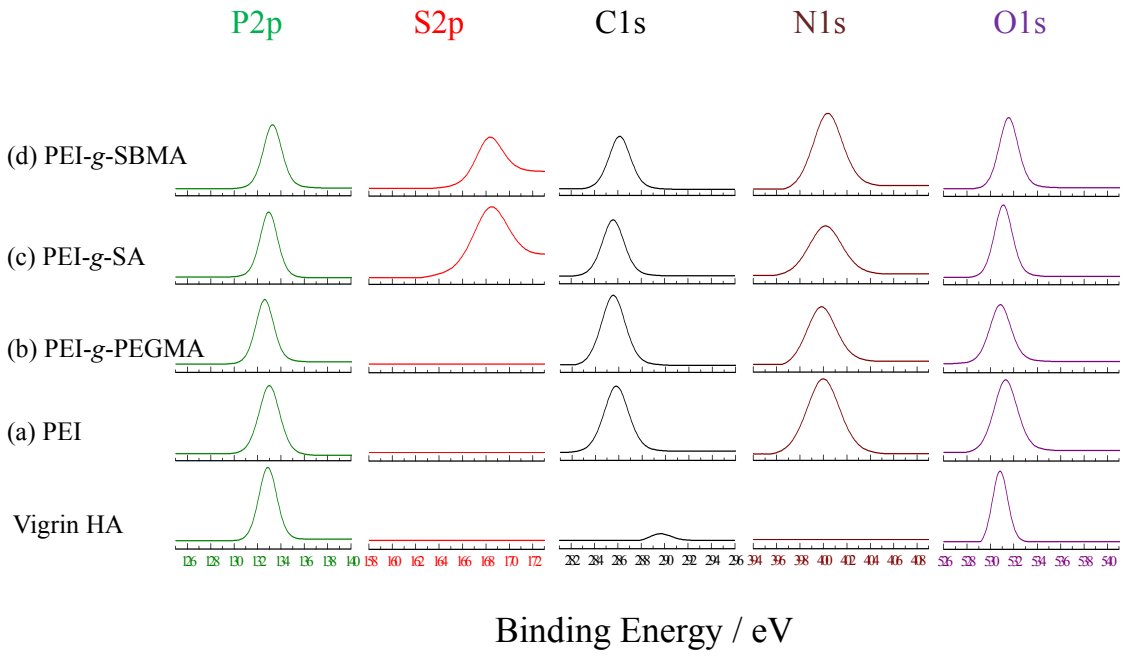

Figure S3. XPS analysis performed after immersing the coated surfaces 7 days in PBS at 37°C.