

Supplementary Information

Microbial fuel cell assisted band gap narrowed TiO_2 for visible light-induced activities and power generation

Mohammad Ehtisham Khan¹, Mohammad Mansoob Khan^{2*}, Bong-Ki Min³, and Moo Hwan Cho^{1*}

¹School of Chemical Engineering, Yeungnam University, Gyeongsan-si, Gyeongbuk 38541, South Korea.

²Chemical Sciences, Faculty of Science, Universiti Brunei Darussalam, Jalan Tungku Link, Gadong, BE 1410, Brunei Darussalam.

³Materials Science Centre, Yeungnam University, Gyeongsan-si, Gyeongbuk 38541, South Korea.

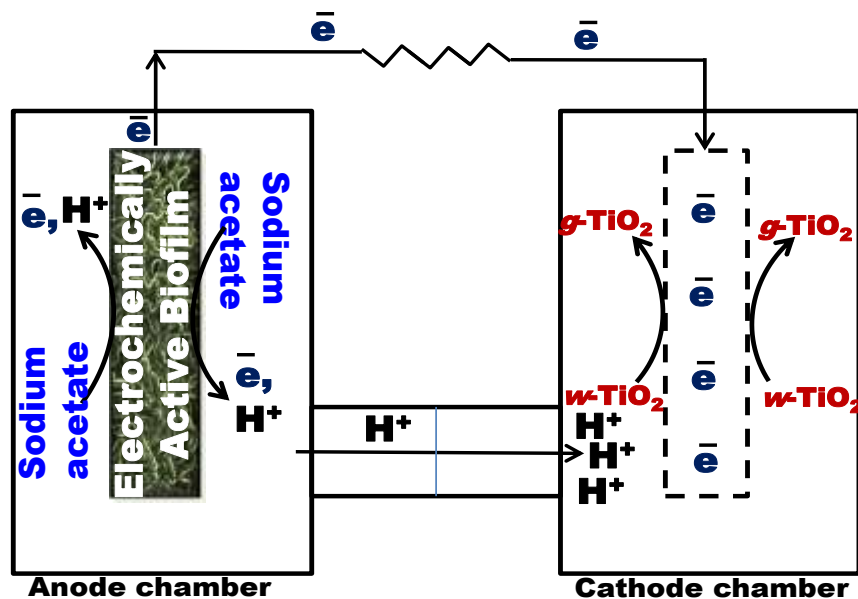


Fig. S1 Proposed schematic model for modification of the TiO_2 in MFC.

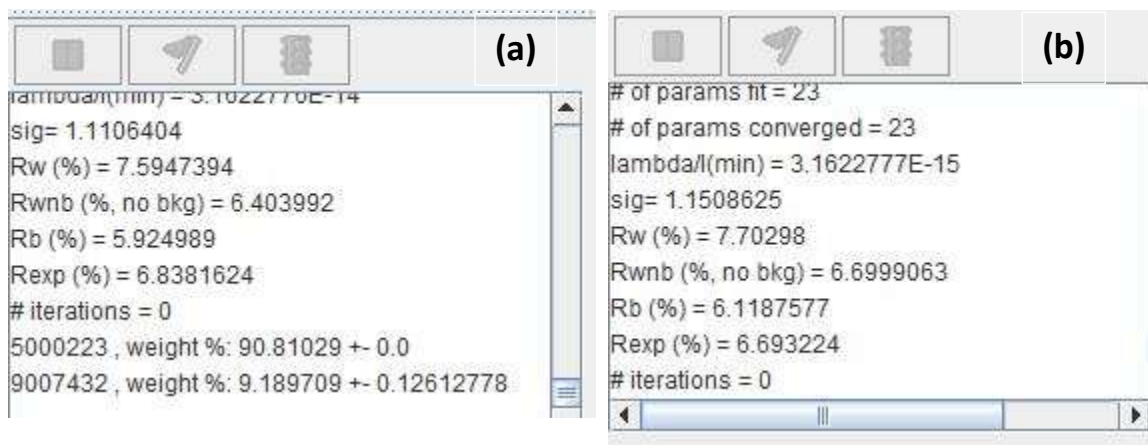


Fig. S2 Rietveld refinement indices for (a) *w*-TiO₂, and (a) *g*-TiO₂ nanoparticles.

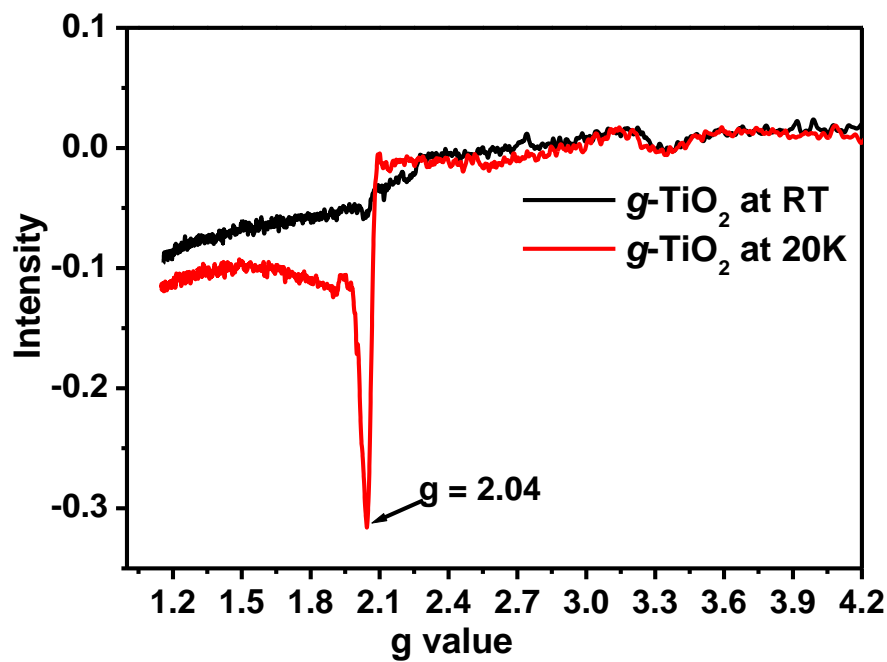


Fig. S3 g value of the *w*-TiO₂ and *g*-TiO₂ nanoparticles at RT and 20 K.

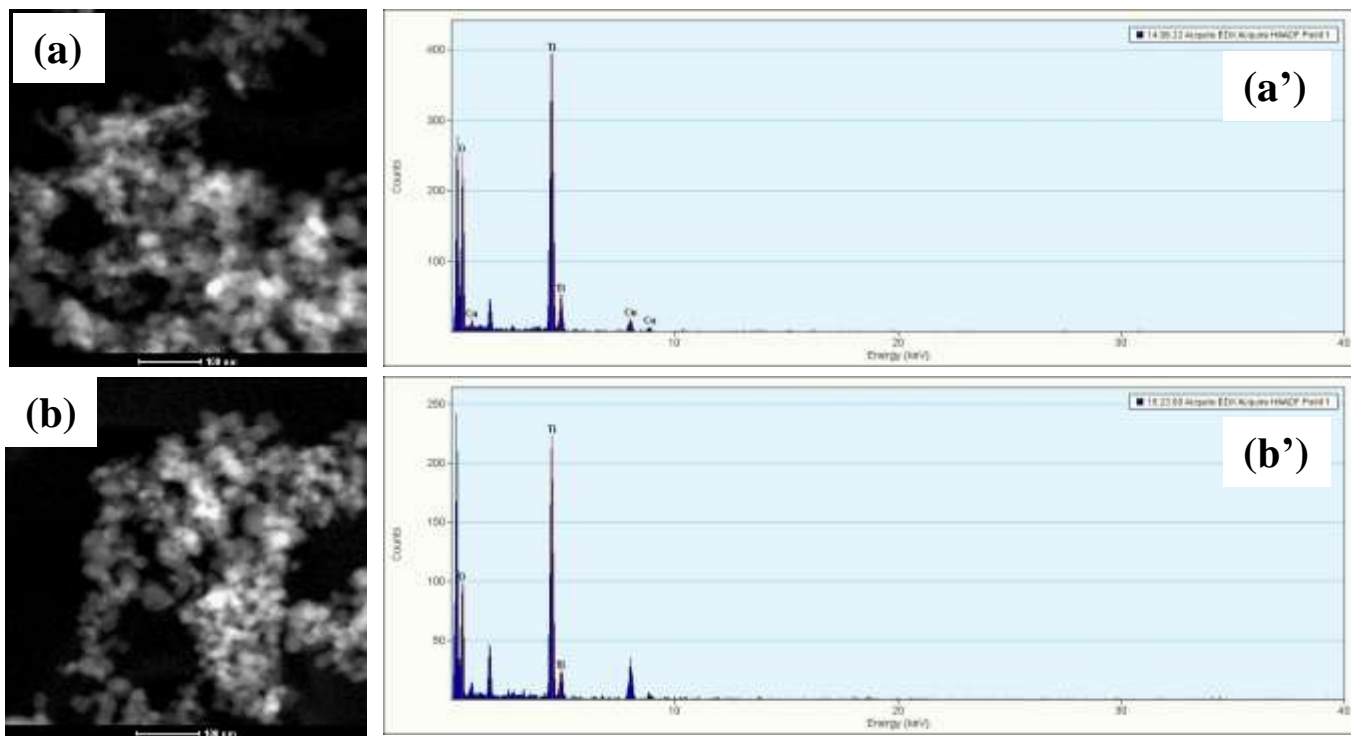


Fig. S4 Acquire HAADF (a and b) and EDX (a' and b') of *w*-TiO₂ and *g*-TiO₂ nanoparticles.

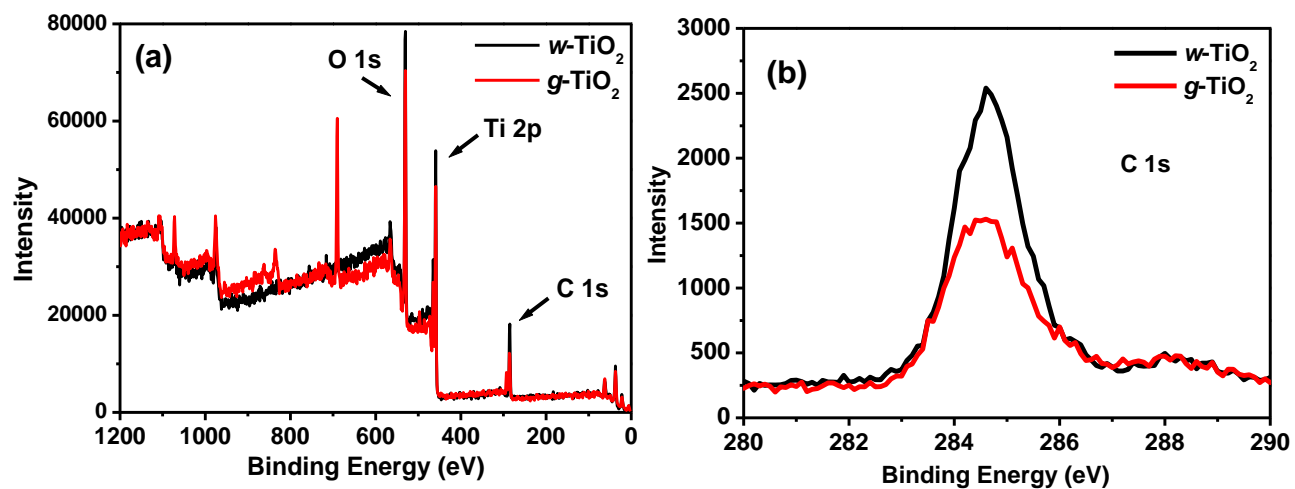


Fig. S5 XPS survey spectra of the *w*-TiO₂ and *g*-TiO₂ nanoparticles.