Electronic Supplementary Material (ESI) for Analyst.

Supplementary Information

A novel integrated biosensor based on co-immobilizing mediator and microorganism for water biotoxicity assay

Jiuming Li [a,b], Yuan Yu [a]*, Jun Qian[a], Yu Wang[c], Jinghua Zhang[c] , Jinfang Zhi [a]*

[a] Key Laboratory of Photochemical Conversion and Optoelectronic Materials, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, 100190, P. R. China,

[b] University of Chinese Academy of Sciences, Beijing, 100190, P. R. China,

[c] Beijing Centre for Physical and Chemical Analysis, Beijing, 10089, P.R. China

*Author to whom correspondence should be addressed:

E-mail: yyu@mail.ipc.ac.cn ; zhi-mail@mail.ipc.ac.cn

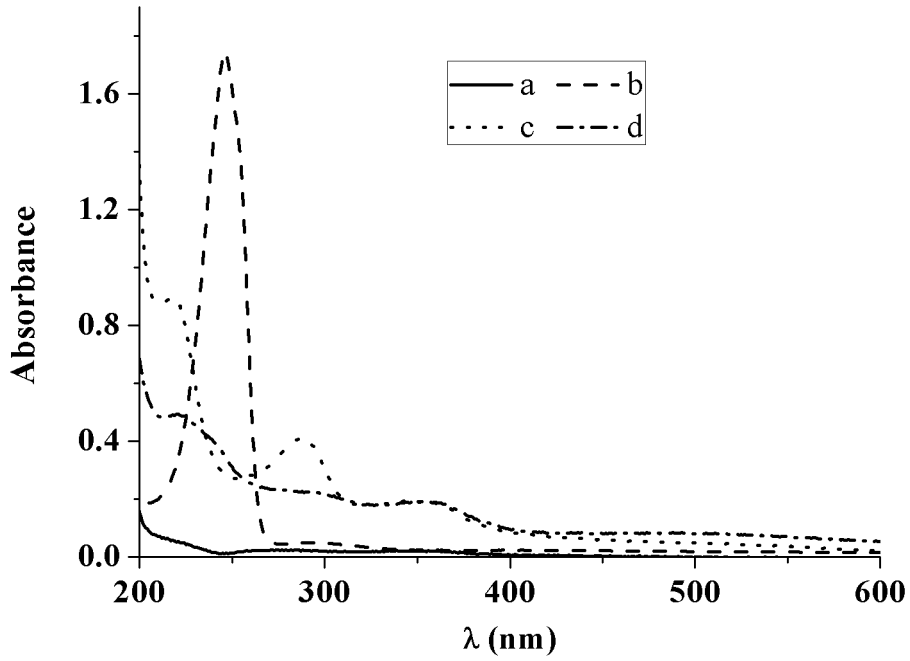


Fig. S 1. UV-Vis spectra of PAPS (a), BQ (b), PAPS-BQ of 6 h (c), and the washed PAPS-BQ of 6h (d)

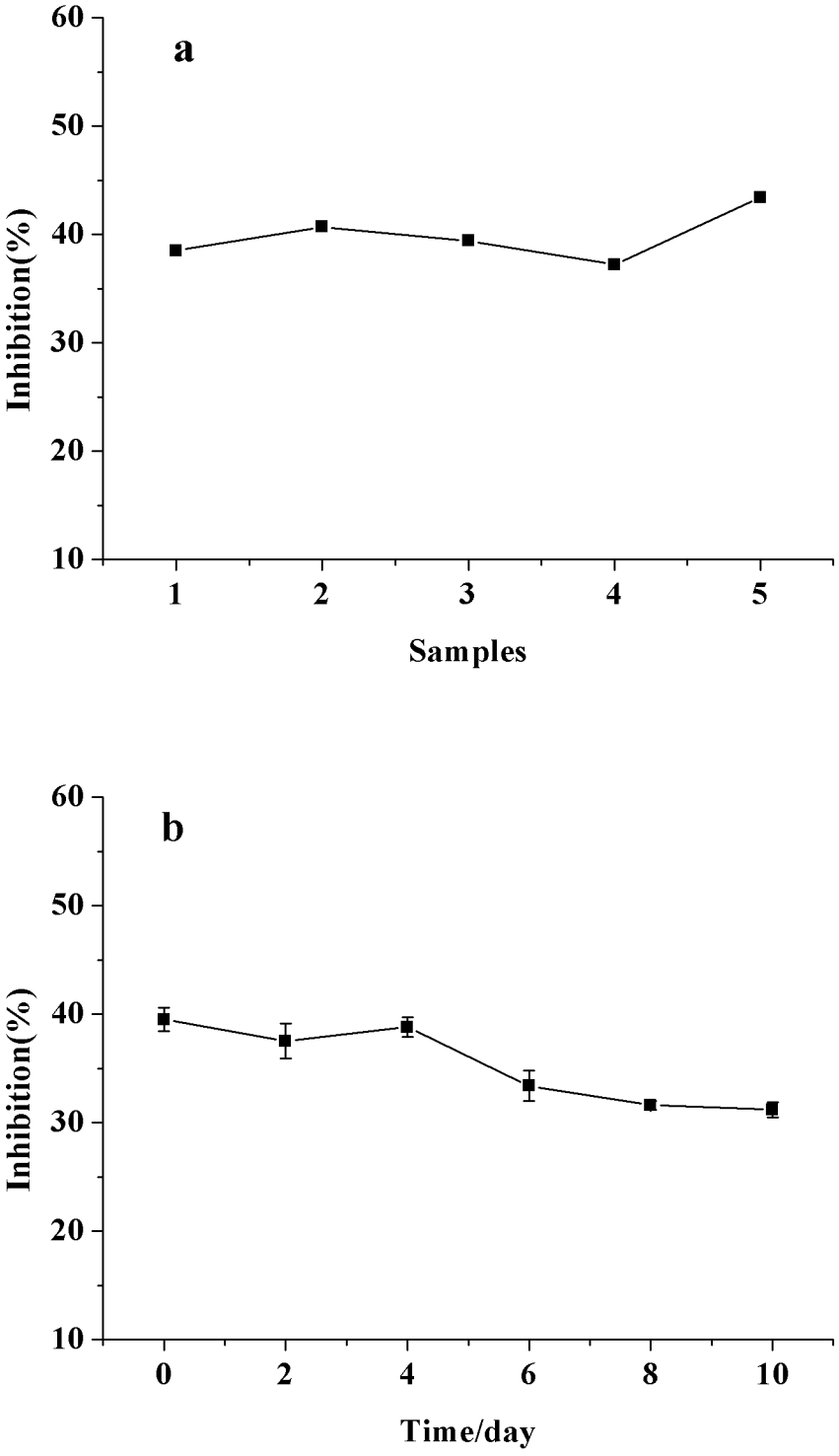
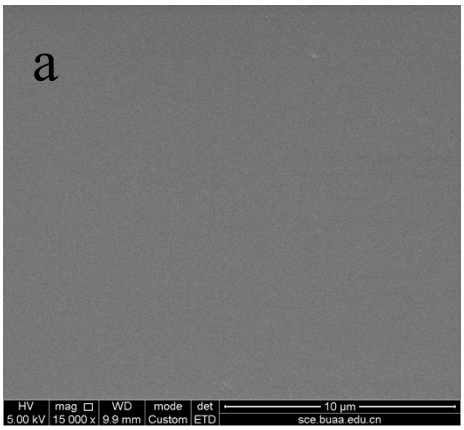
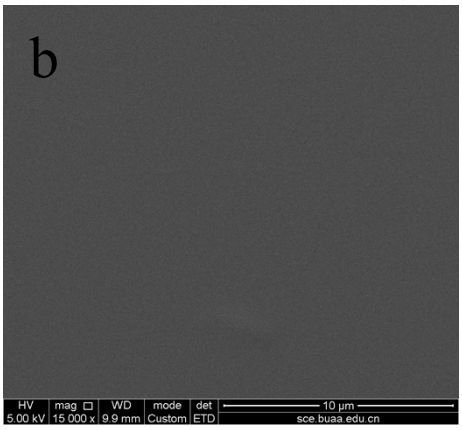


Fig. S2. (a) Reproducibility of the integrated microbial biosensors of five replicates and (b) storage stability for ten days. Data points in (b) represent the average of three replicates.





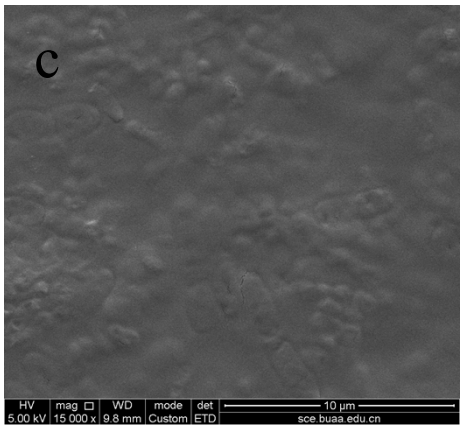


Fig. S3. SEM images of gelatin/GC electrode (a); BGSH/GC electrode (b) and *E.coli*/BGSH/GC electrode (c)