Supporting information

Robust TiO_2/BDD heterojunction photoanodes for determination of chemical oxygen demand in wastewaters

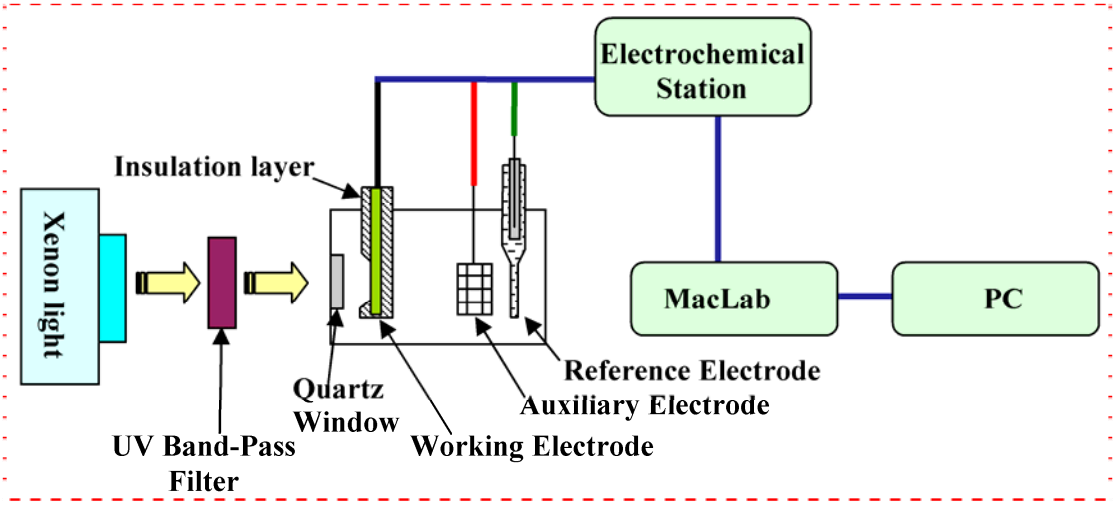

Figure S1. Schematic diagram of the three-electrode photoelectrochemical bulk cell for photoelectrochemical characterisation of the TiO_2/BDD electrode

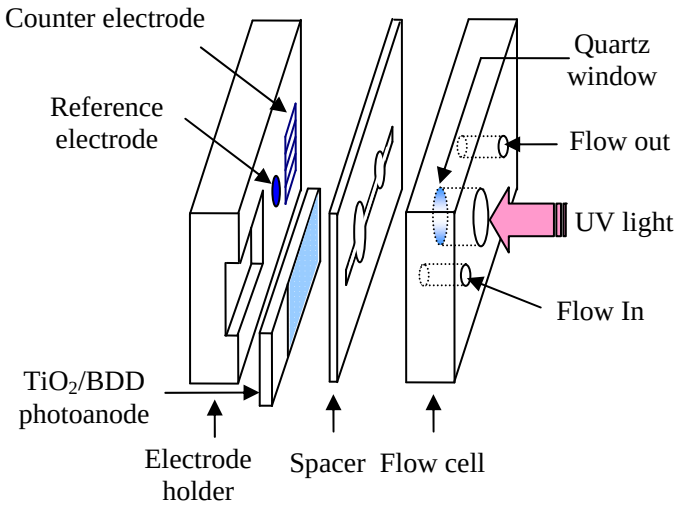

Figure S2. Schematic diagram of the design of the thin-layer photoelectrochemical cell.

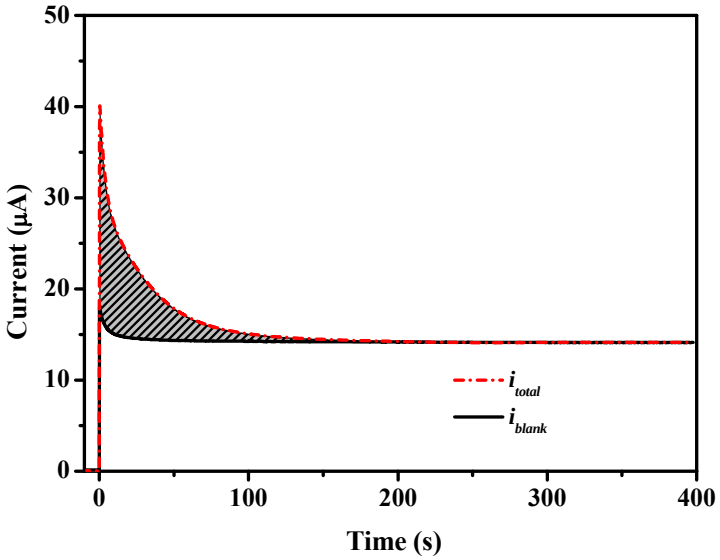

Figure S3. PeCOD analytical principle: Typical photocurrent responses of a blank solution containing 2.0M $NaNO_3$ (i_{blank}, solid line) and a sample containing 2.0M $NaNO_3$ and organic compounds solution (i_{total}, dash line). The shaded area indicates the charge originated from the complete oxidation of organic compounds in the thin-layer cell.

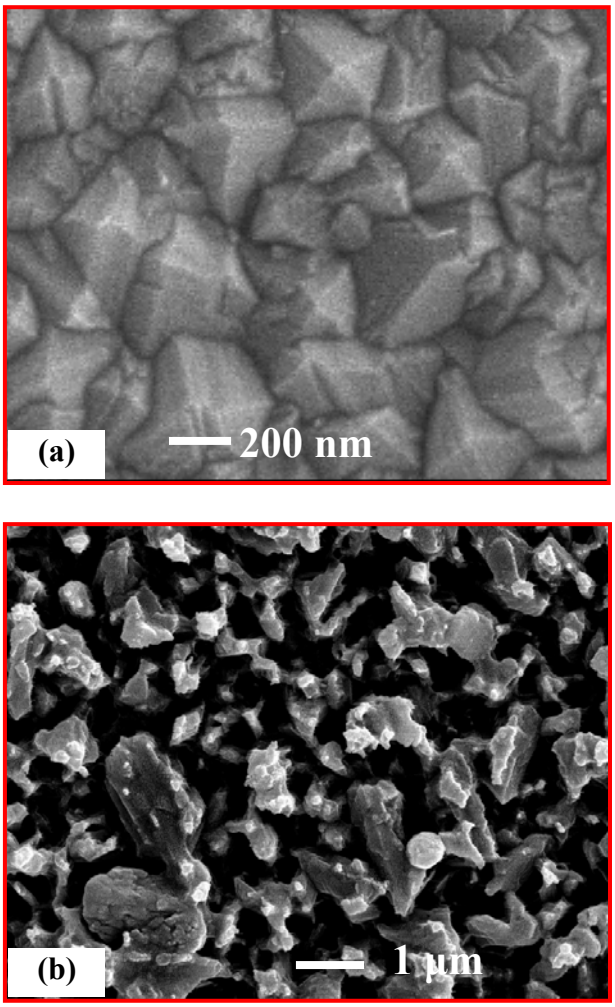

Figure S4. SEM images of original BDD after the aqua regia washing process (a), and sintered BDD electrodes after 700^{o}C calicination in air (b).