Influence of photo-deposited Pt and Pd nanoparticles onto chromium doped TiO_2 nanotubes in photo-electrochemical water splitting for hydrogen generation

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Tables

Table S1. The total half-lives of photogenerated charge carriers calculated using bi-exponential function fitting of OCP decay profiles of Pt-CTs and Pd-CTs electrodes

Sample No	1	2	3	4	5	6
Pt-CT	2.27	1.54	1.84	1.84	1.74	2.17
Pd-CT	1.79	1.82	1.79	1.55	1.67	1.85

Figures

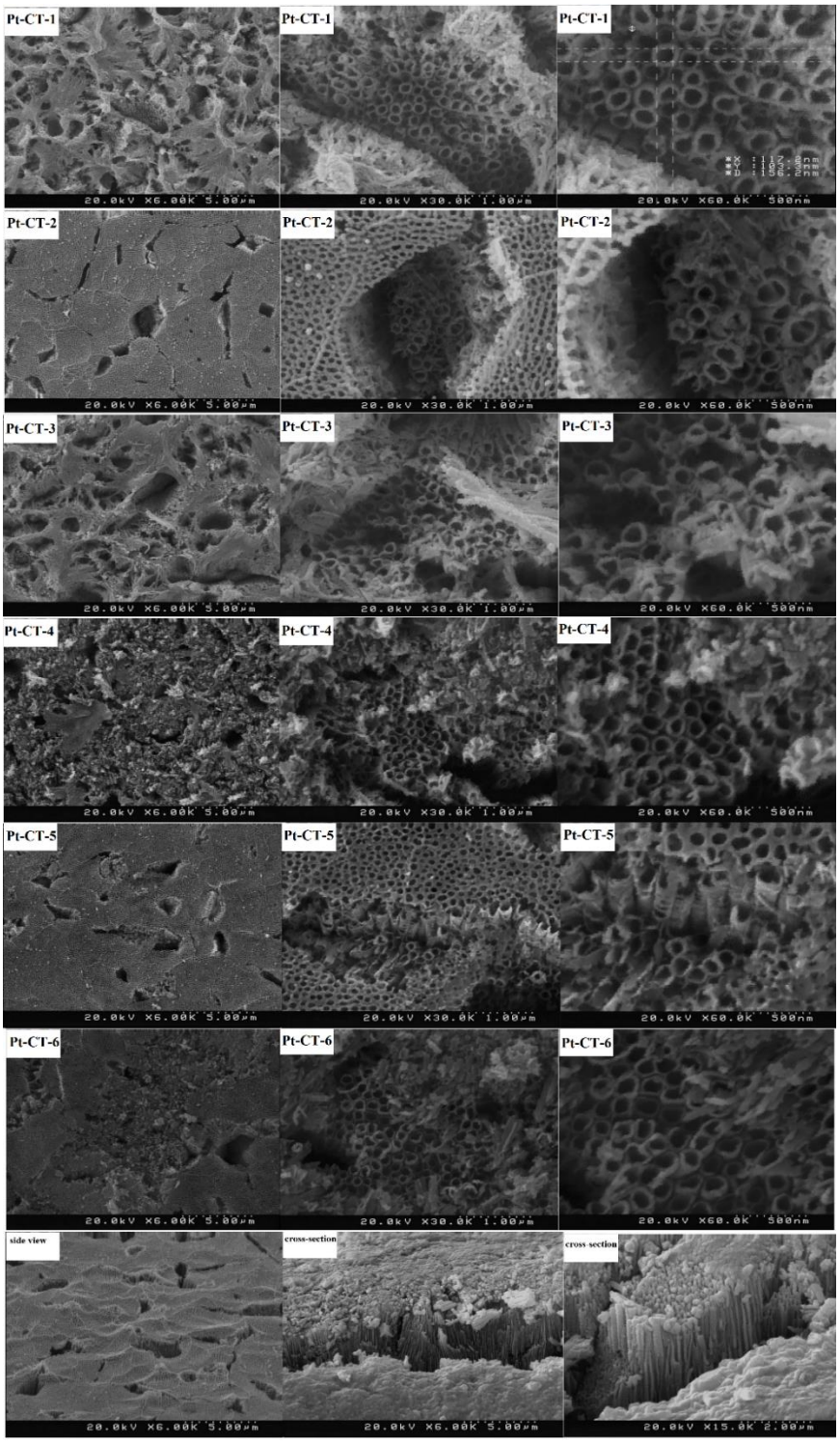

Fig S1. SEM images of Pt-CTs electrodes at different magnitude

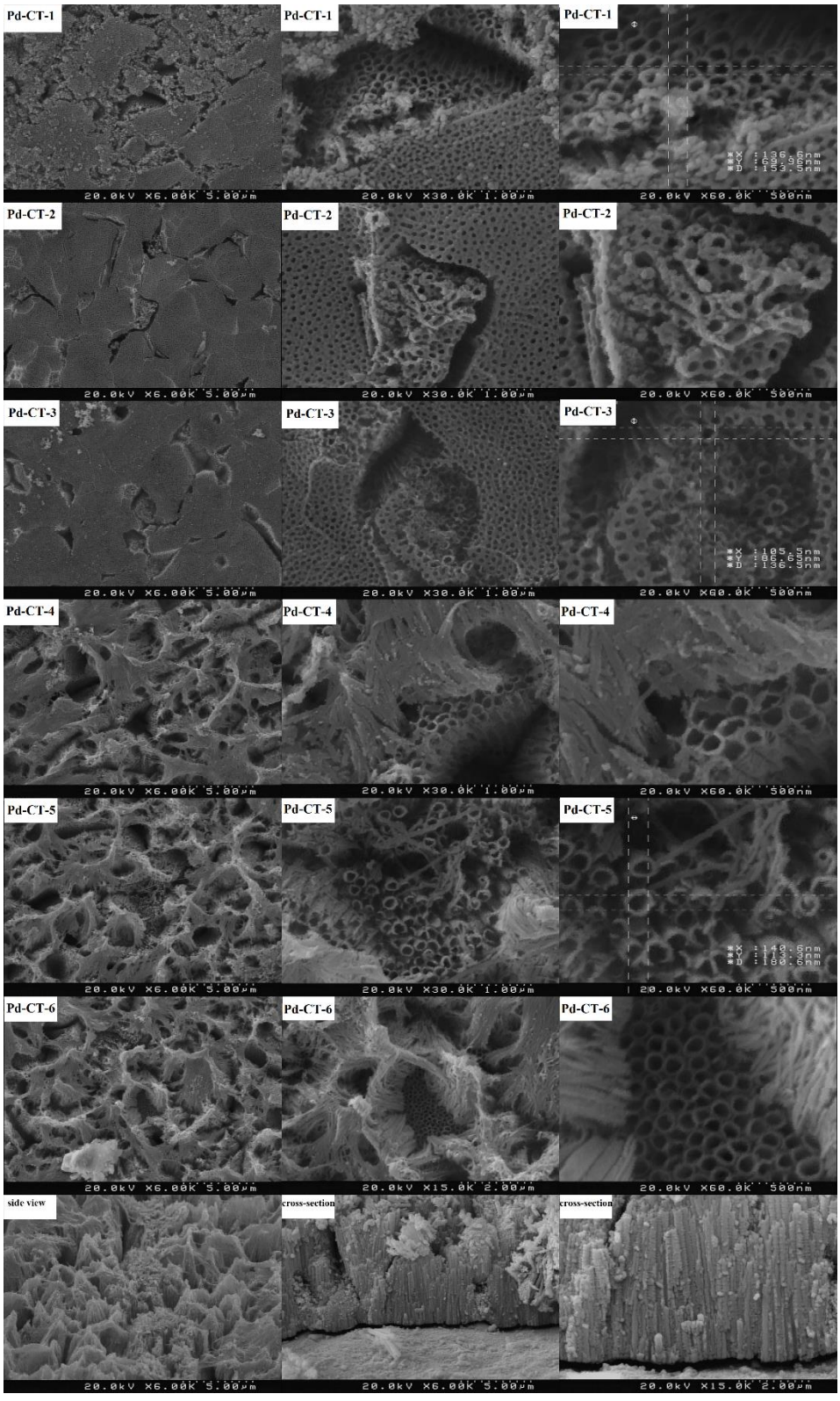

Fig S2. SEM images of Pd-CTs samples at different magnitude

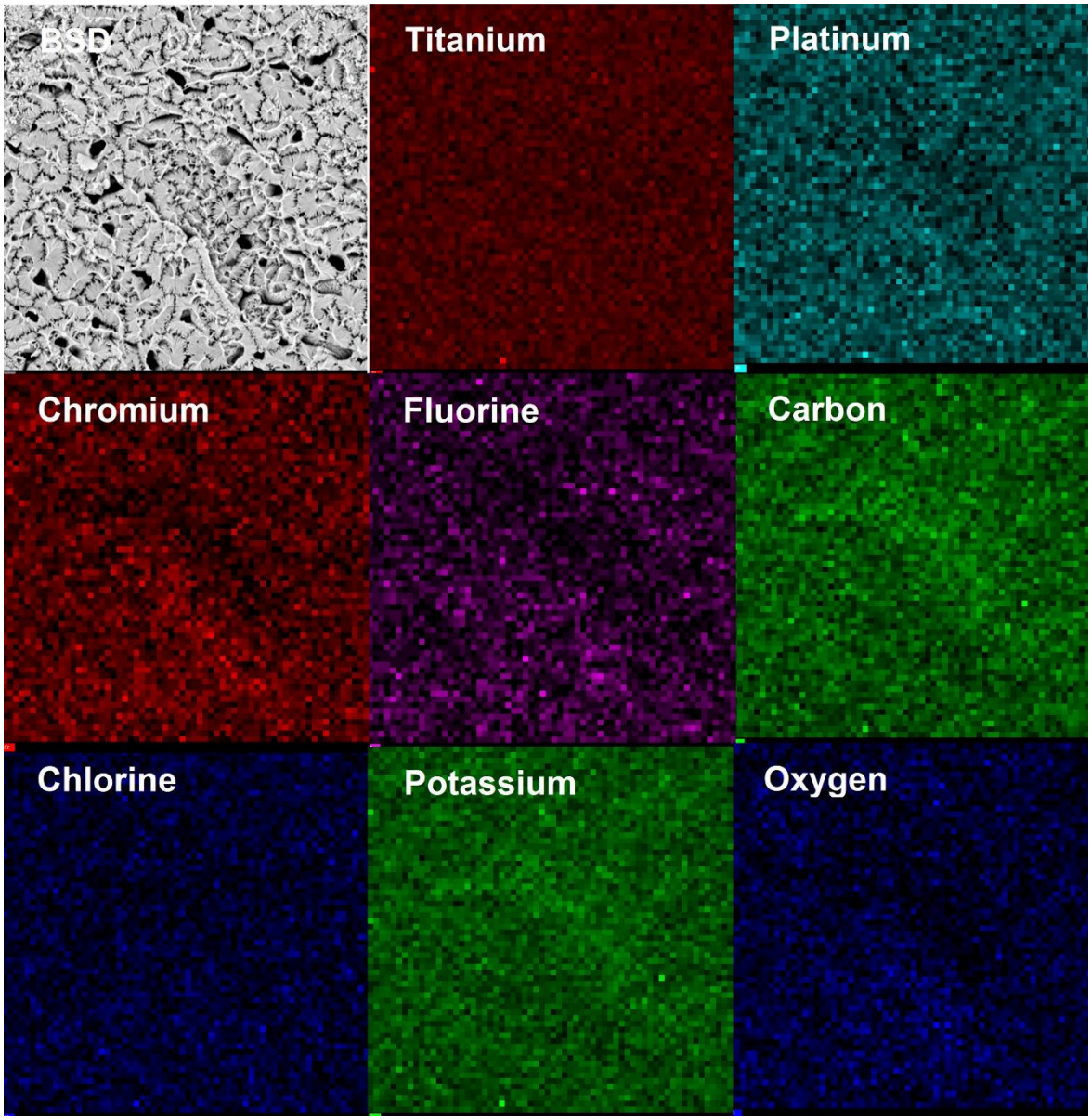

Fig S3. EDX-mapping of Pt-CT-6 electrode

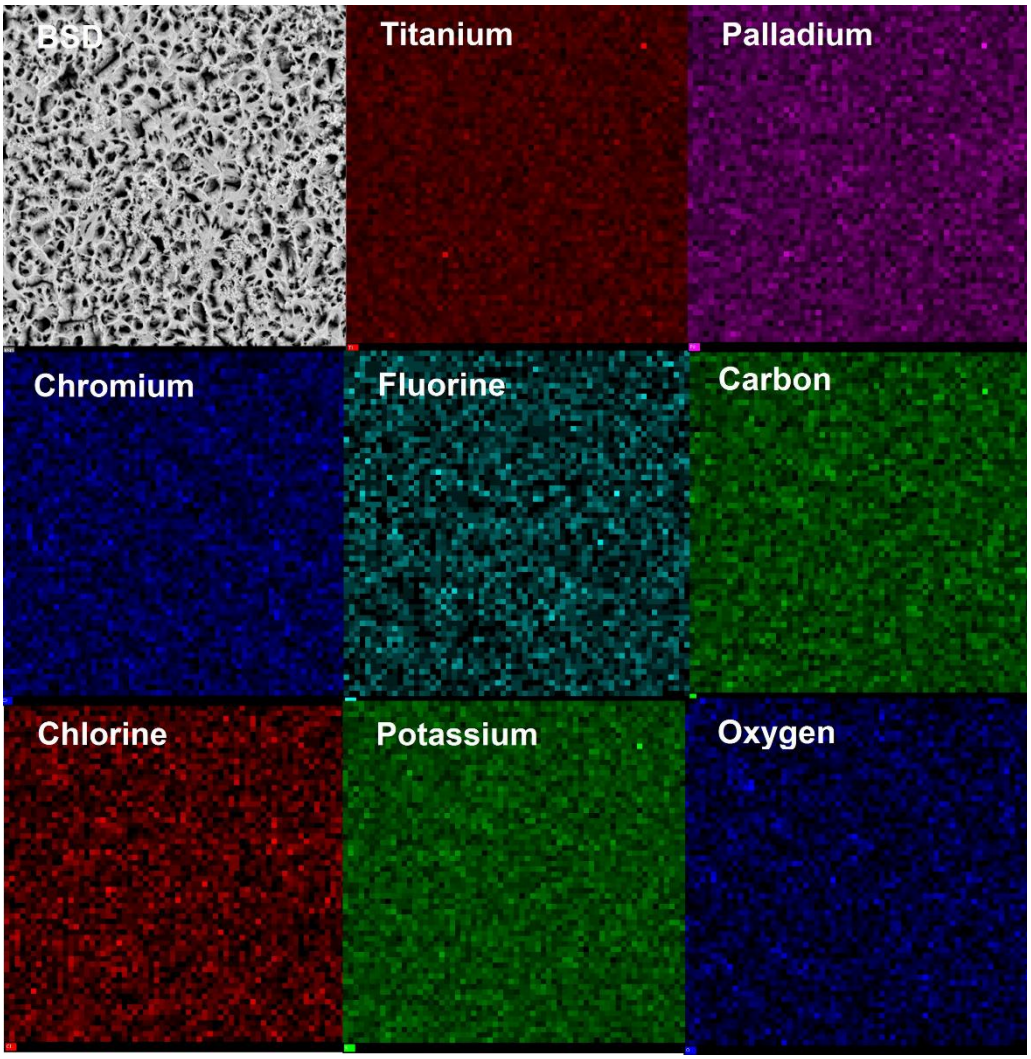

Fig S4. EDX-mapping of Pd-CT-6 electrode

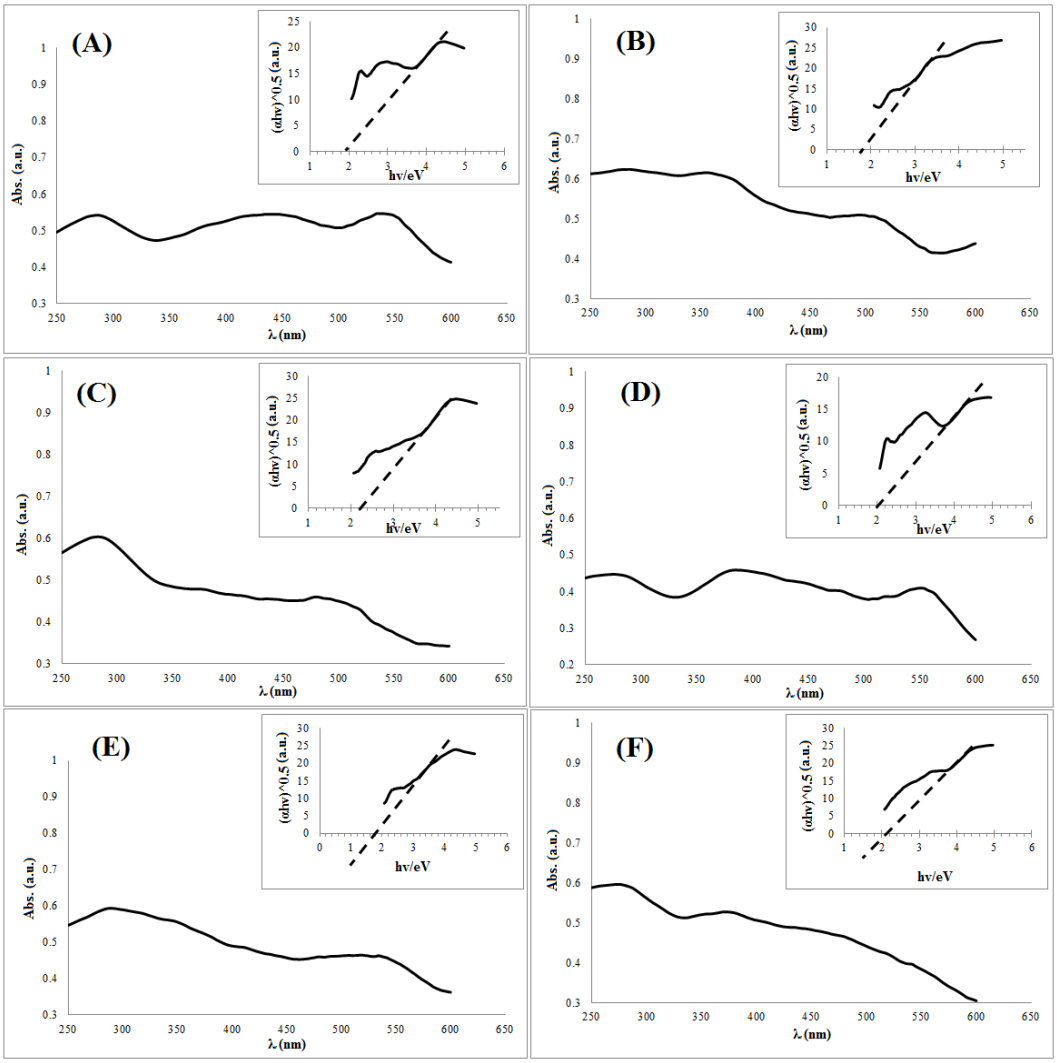

Fig S5. UV-Vis spectra of Pt-CT electrodes (A-F: Pt-CT-1 to Pt-CT-6), inset figs are Tauc plot of UV-Vis absorption data for calculation of band gap

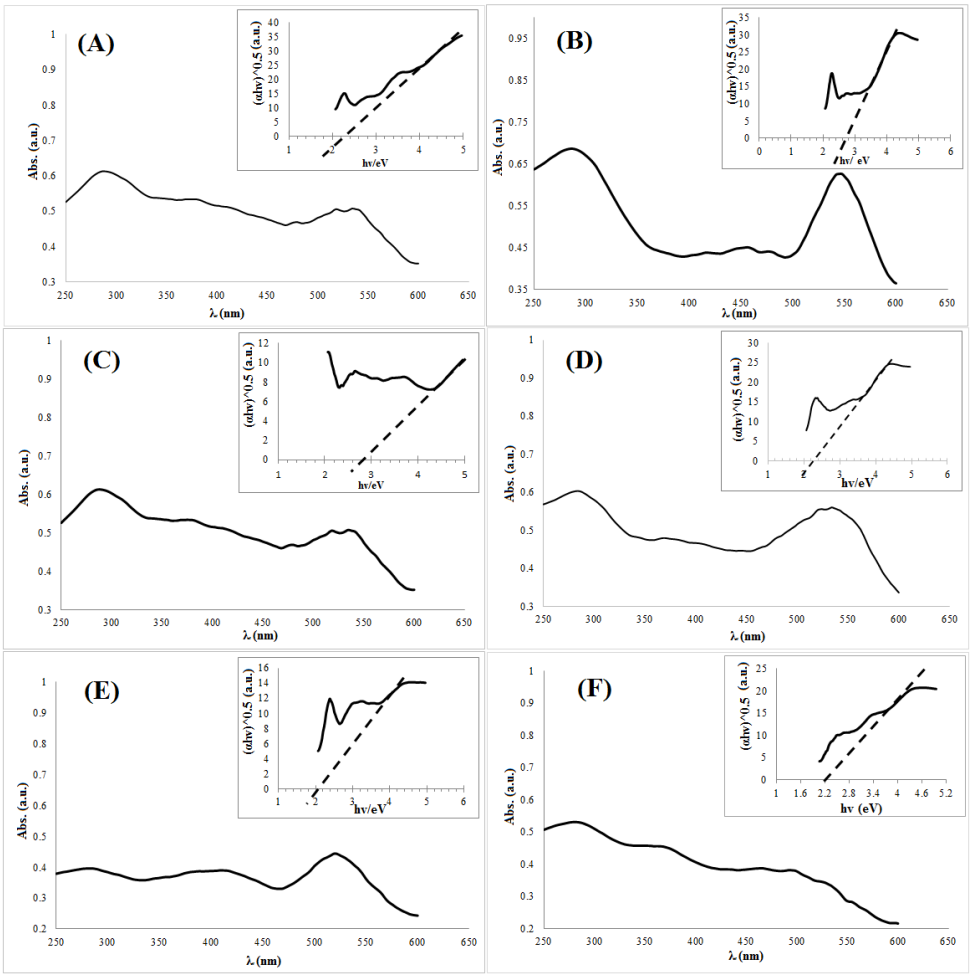

Fig S6. UV-Vis spectra of Pd-CT electrodes (A-F: Pd-CT-1 to Pd-CT-6), inset figs are Tauc plot of UV-Vis absorption data for calculation of band gap

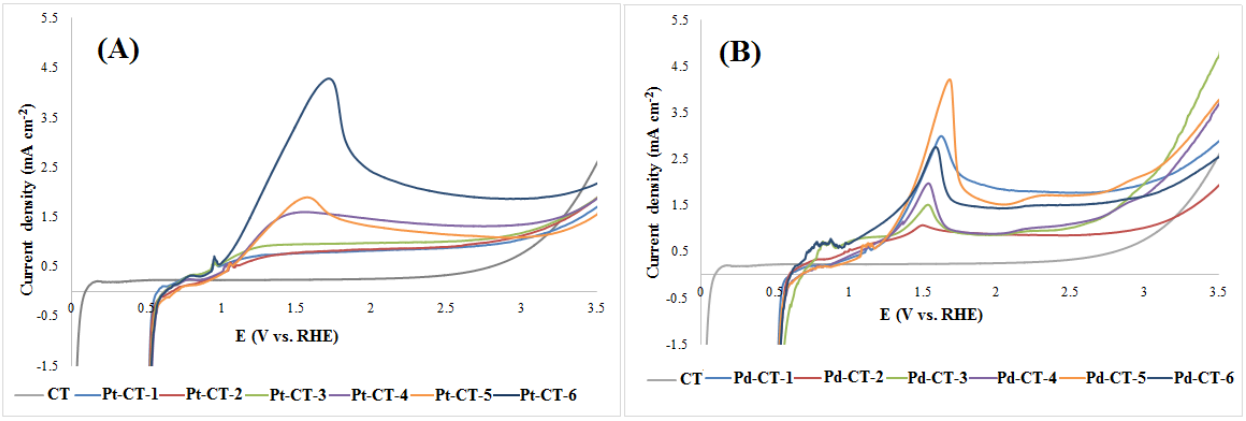

Fig S7. LSV of Pt-CT (A) and Pd-CT (B) electrodes in under illumination of Xe lamp in a solution of KOH (1M) with 5 vol% EG

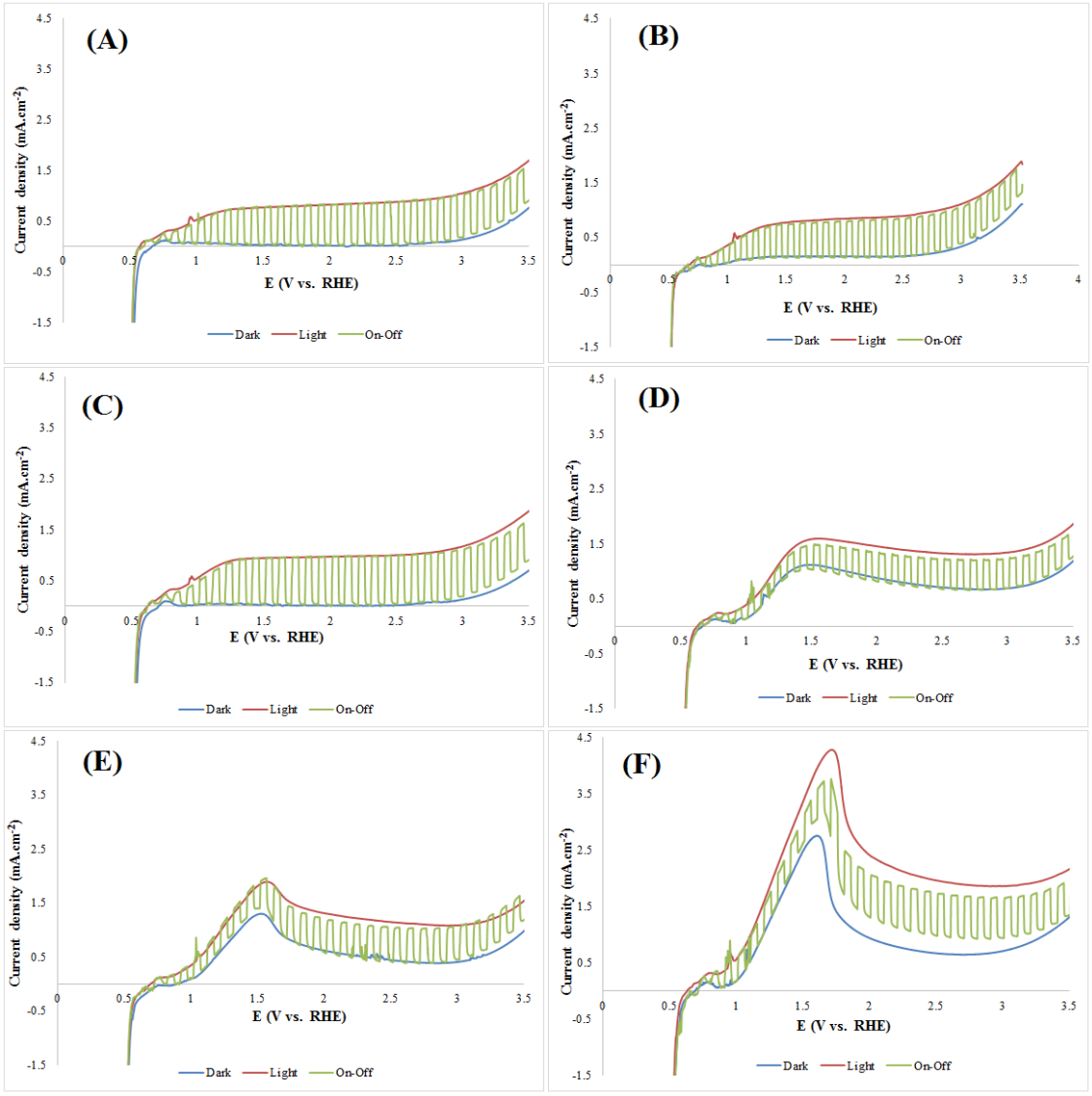

Fig S8. LSV of Pt-CT electrodes (A-F: Pt-CT-1 to Pt-CT-6), in the dark, under illumination, and chopped light of Xe lamp in a solution of KOH (1M) with 5 vol% EG

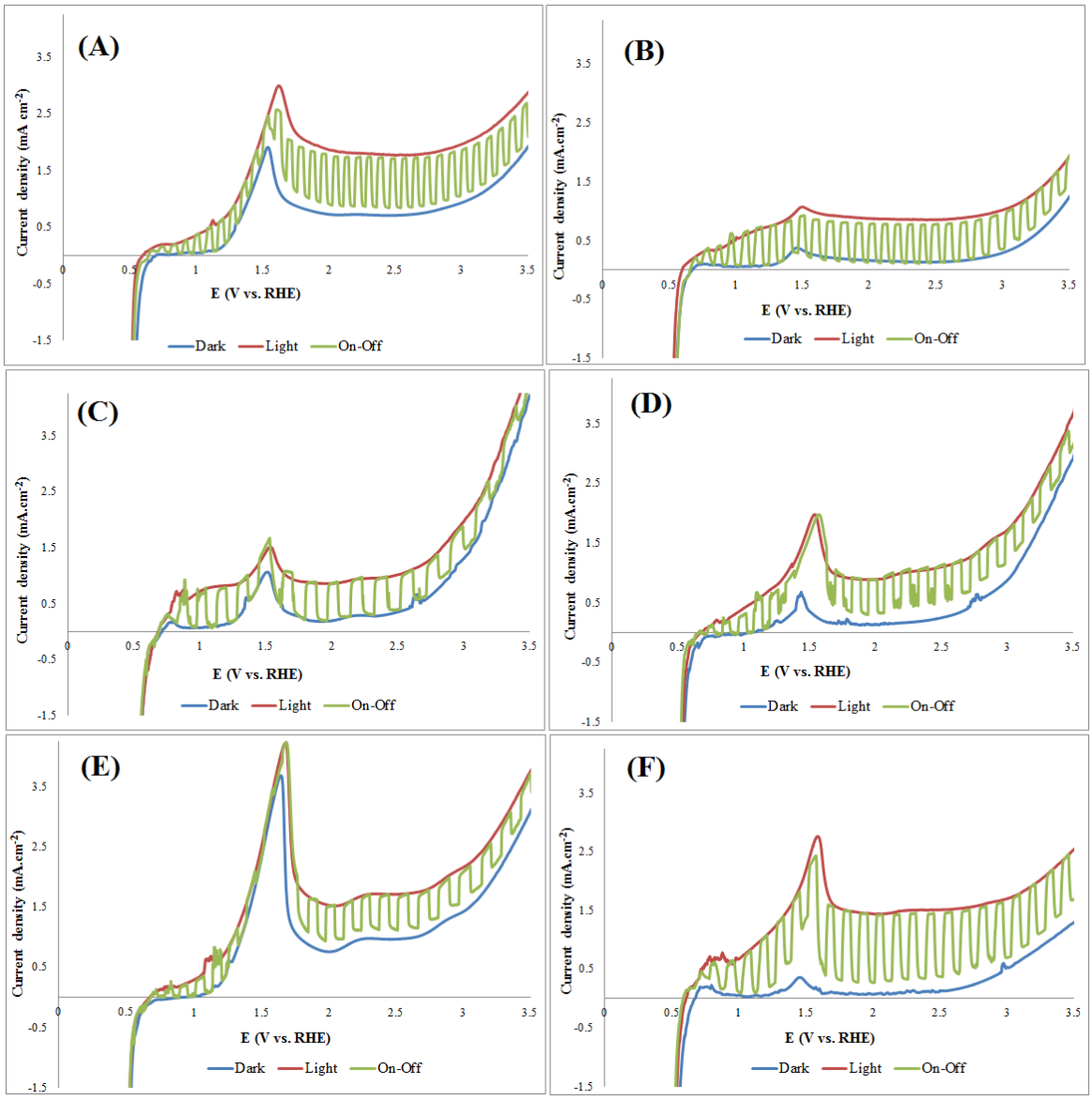

Fig S9. LSV of Pd-CT electrodes (A-F: Pd-CT-1 to Pd-CT-6), in the dark, under illumination, and chopped light of Xe lamp in a solution of KOH (1M) with 5 vol% EG

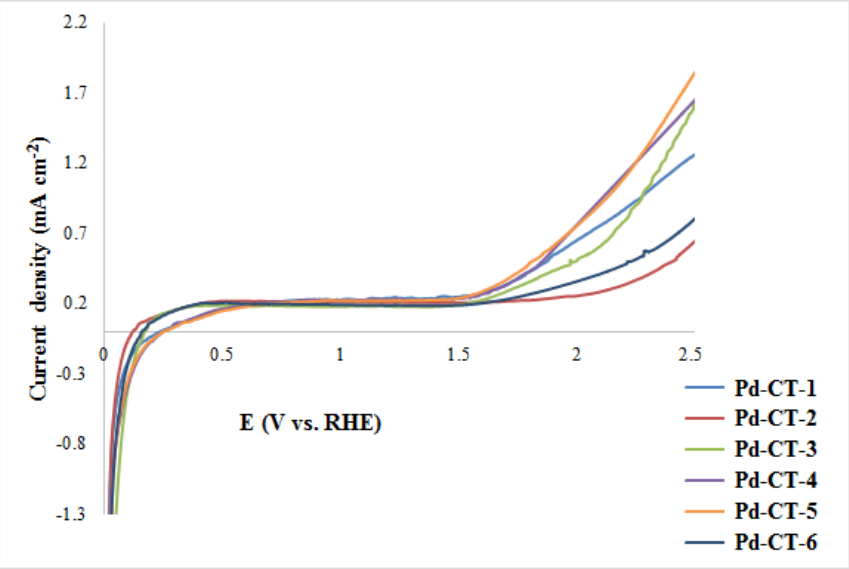

Fig S10. LSV of Pd-CT electrodes under illumination of Xe lamp in a solution of KOH (1M) without EG