Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

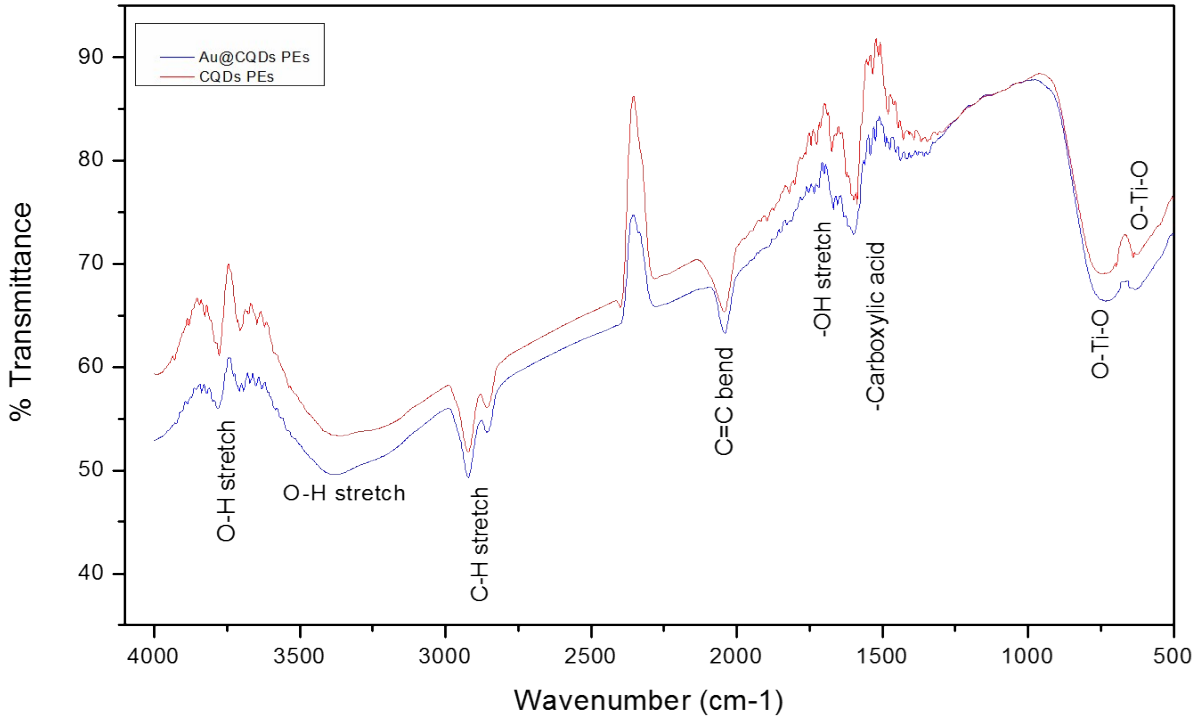


Fig. S1. FT-IR characteristics of CQDs and Au@CQDs PEs.

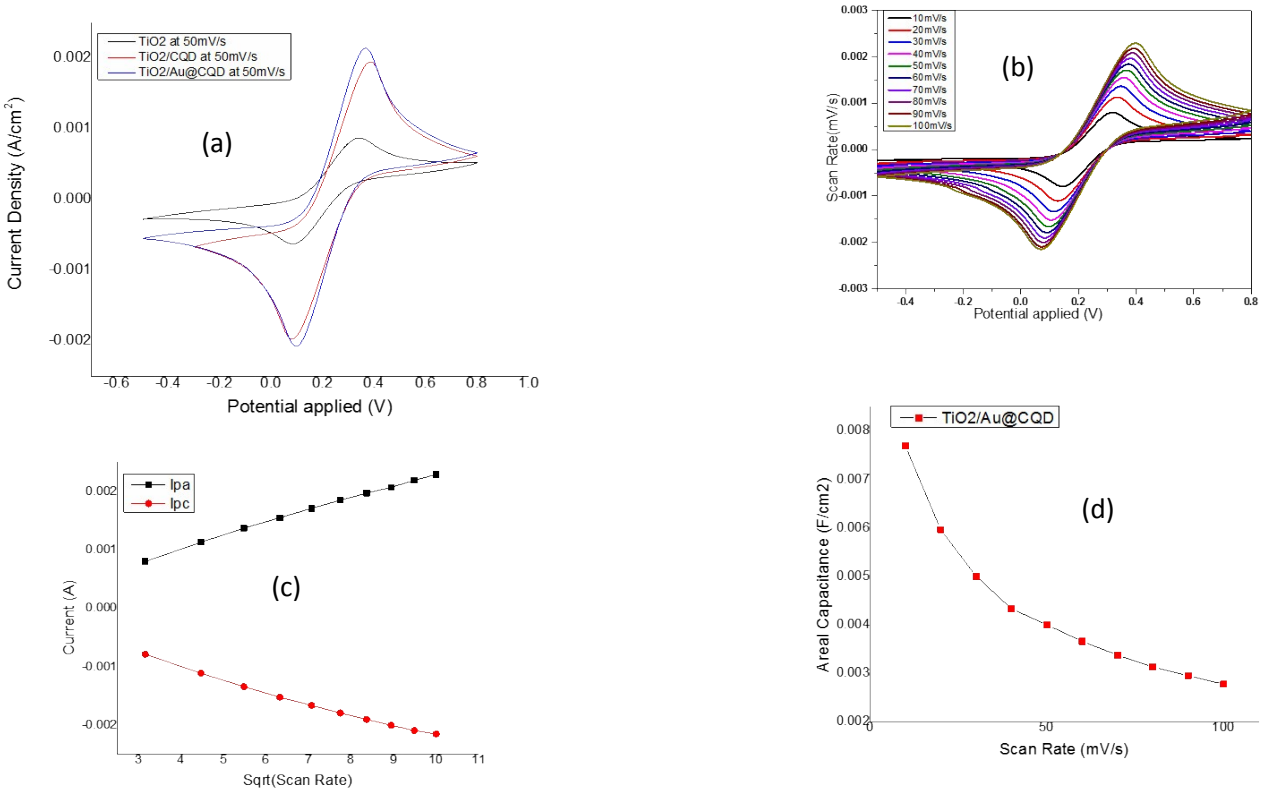


Fig.S2. (a) Cyclic voltammetric analysis (current density) of TiO_2, CQD/TiO_2 and Au@CQDs/TiO_2 PEs, (b) scan rate study, (c) current vs. (scan rate)$^{1/2}$ and (d) areal capacitance of Au@CQDs PEs towards ferri/ferro redox probe.

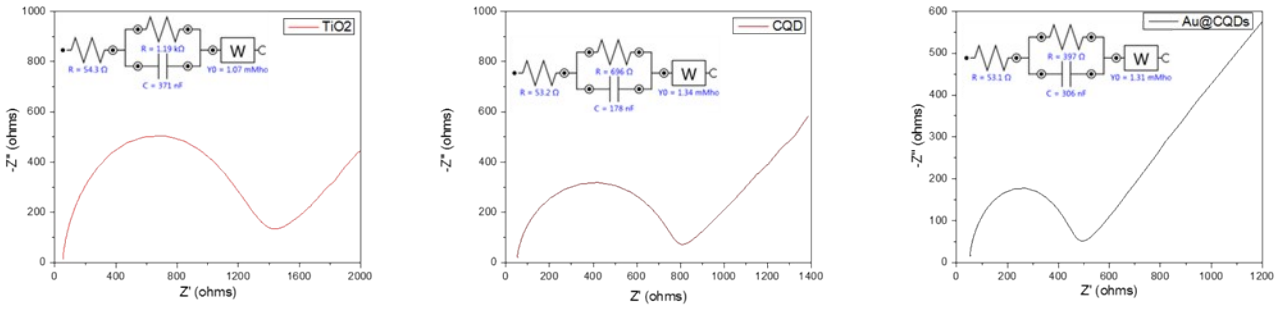
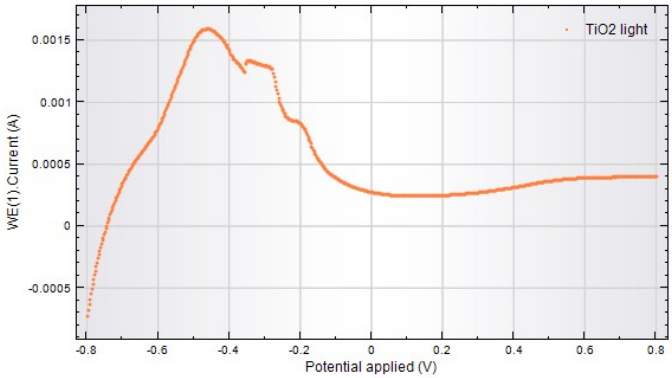
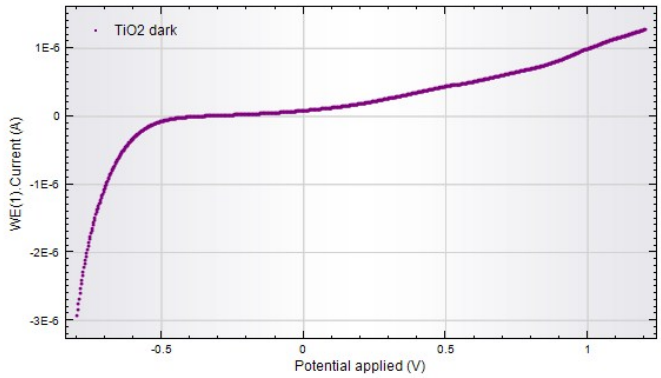
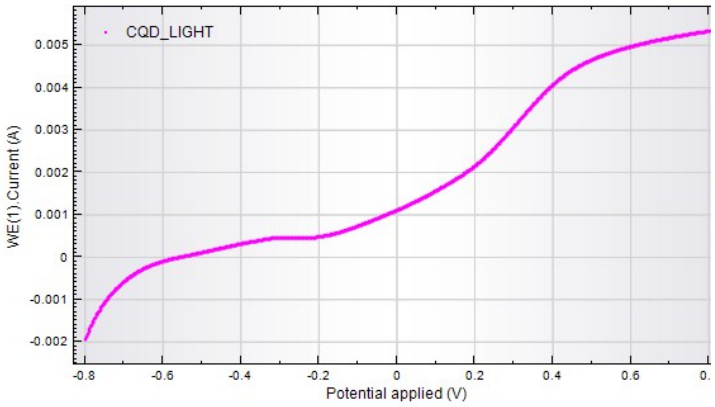


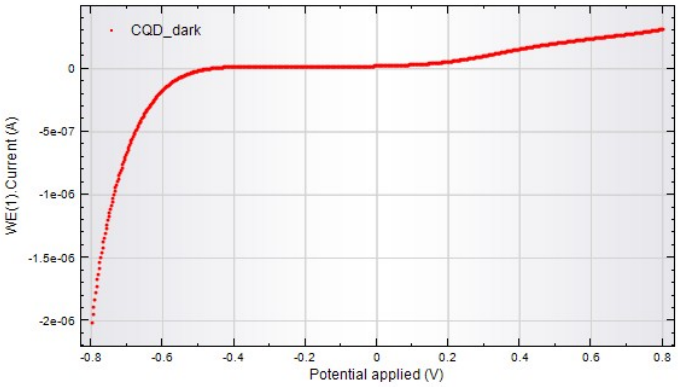
Fig. S3. Electrochemical impedance spectroscopy (EIS) and associated Nyquist plot for bare, CQDs and Au@CQDs PEs.

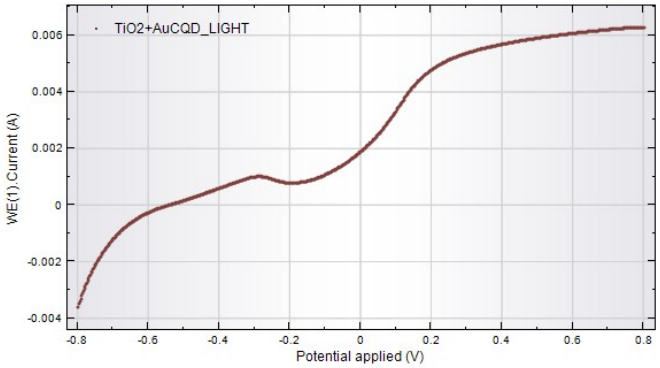
Original Results from system:

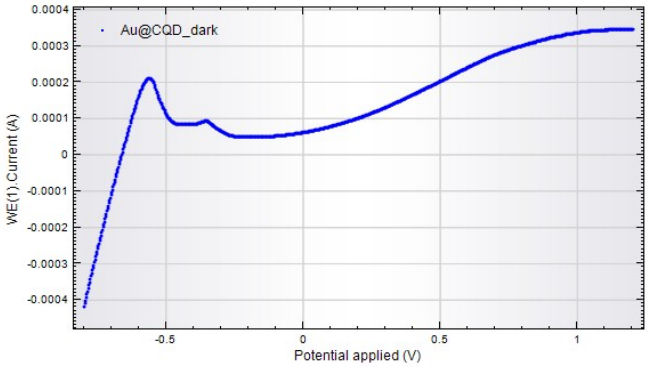


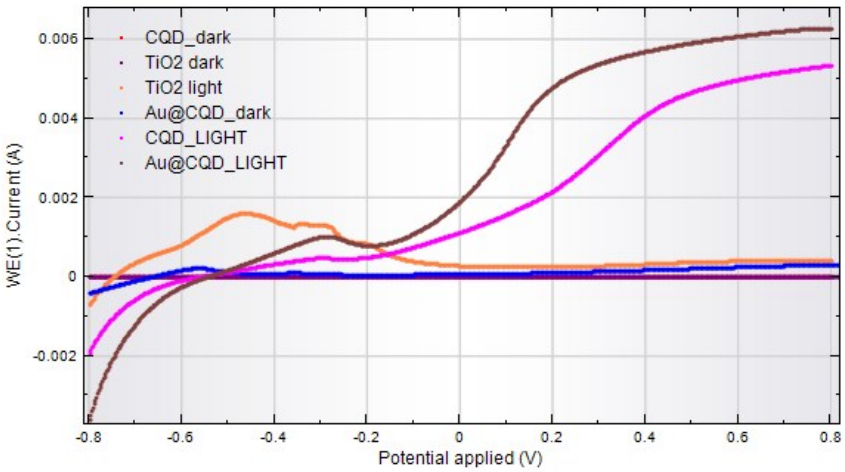



CQD_LIGHT
WE(1).Current (A)
Potential applied (V)

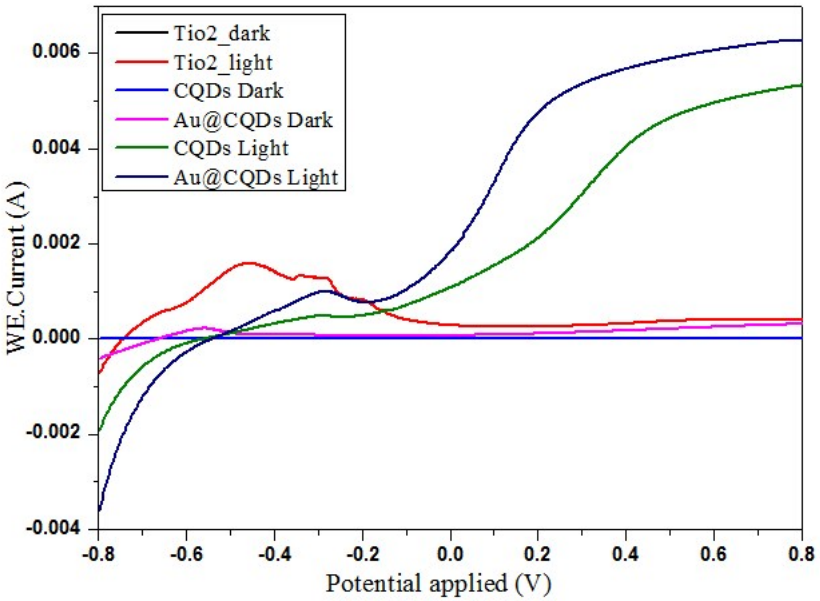

CQD_dark
WE(1).Current (A)
Potential applied (V)


TiO2+AuCQD_LIGHT
WE(1).Current (A)
Potential applied (V)

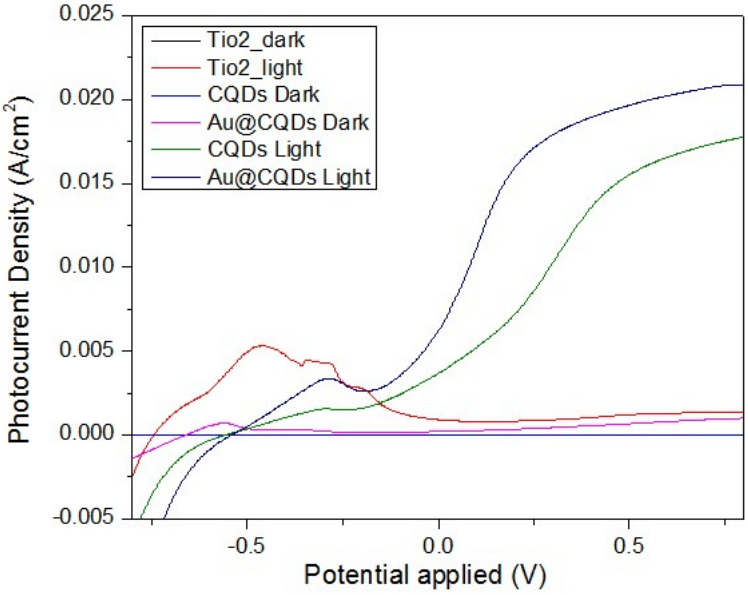

Au@CQD_dark
WE(1).Current (A)
Potential applied (V)


CQD_dark
TiO2 dark
TiO2 light
Au@CQD_dark
CQD_LIGHT
Au@CQD_LIGHT
WE(1).Current (A)
Potential applied (V)

LSV Comparison Plots in terms of Current



LSV comparison plots in terms of current density



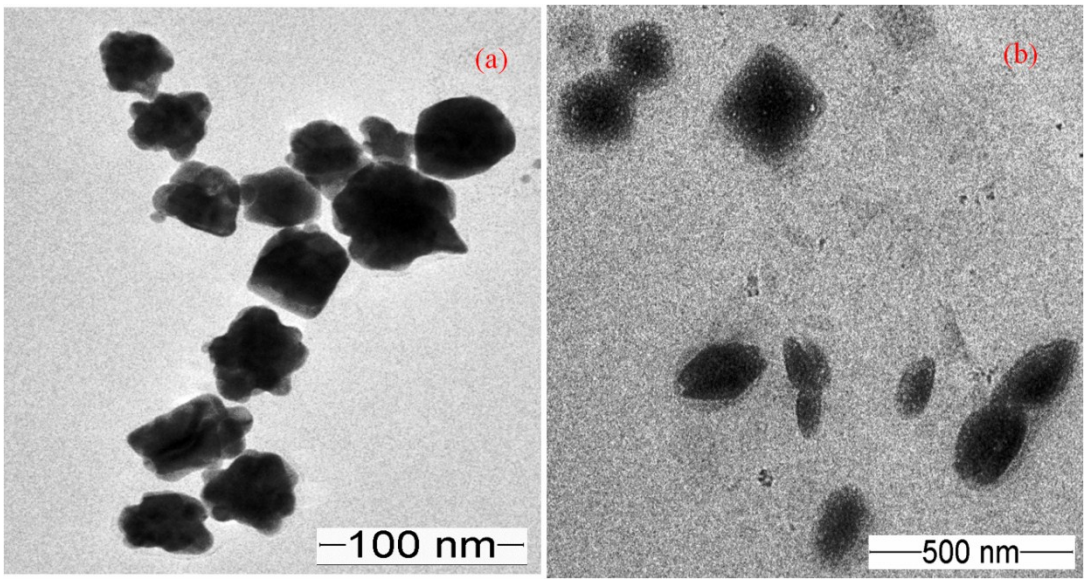


Fig. S4. HR-TEM micrographs for Au@CQDs**.**

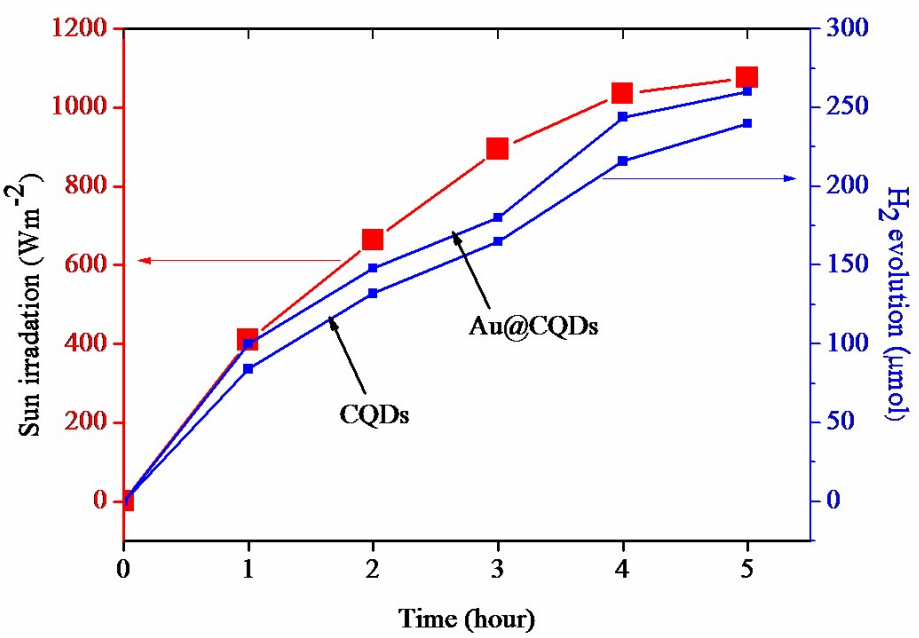


Fig. S5. Effect of sunlight flux (watt/m^2) on hydrogen production.