

# **Supporting Information**

for

## **Thickness-dependent photoelectrochemical properties of a semitransparent Co<sub>3</sub>O<sub>4</sub> photocathode**

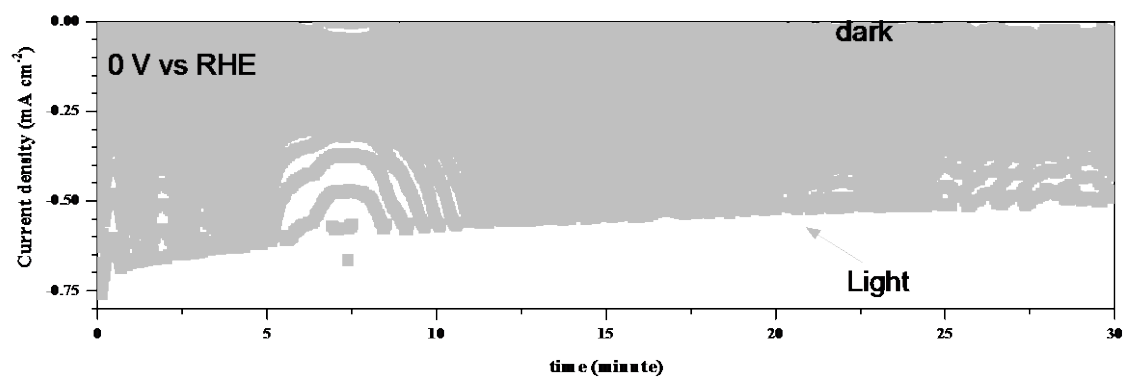
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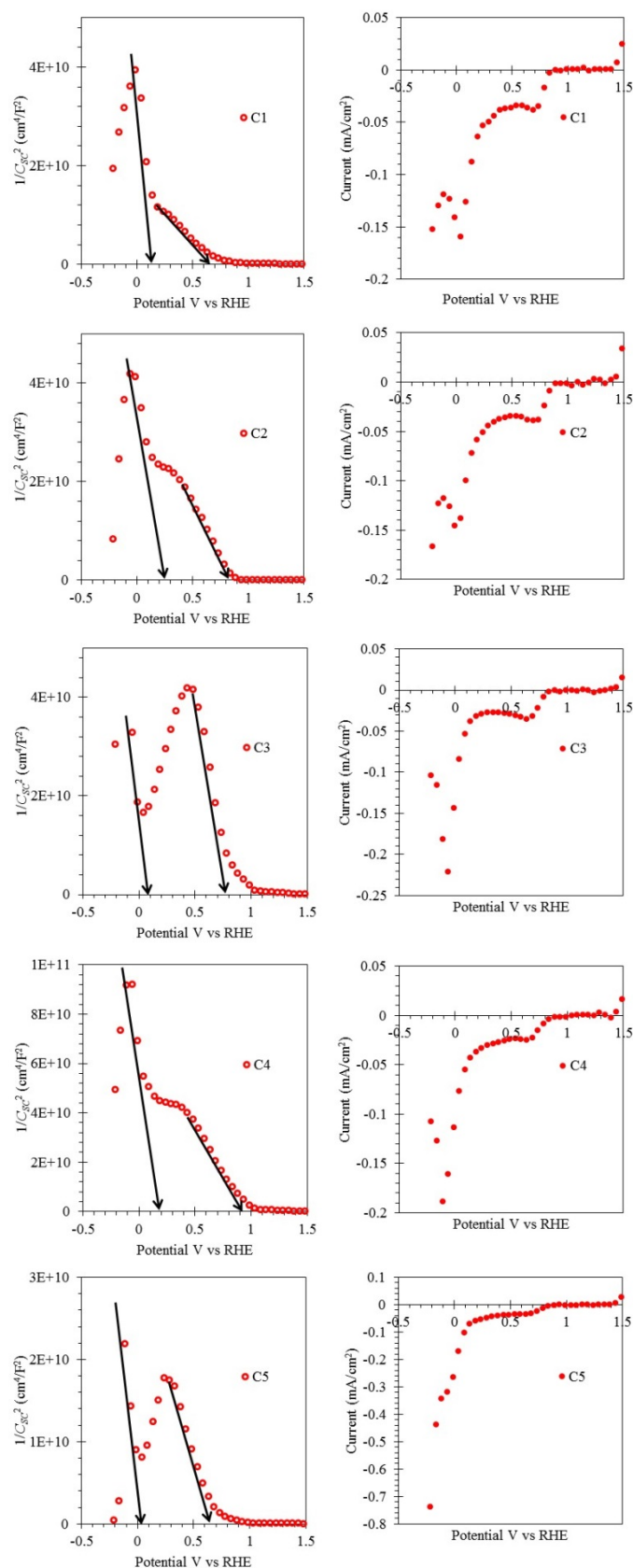
Email: Joondong Kim - joonkim@incheon.ac.kr

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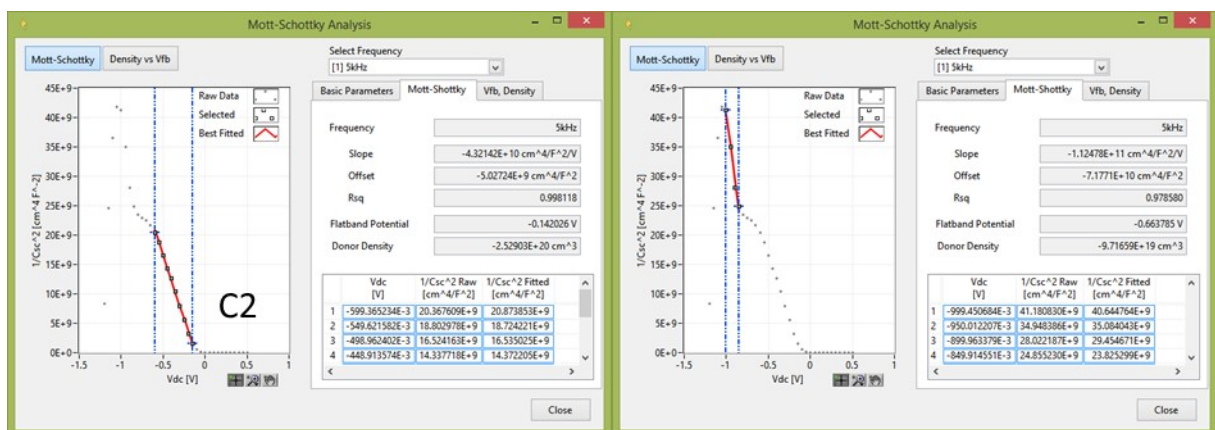
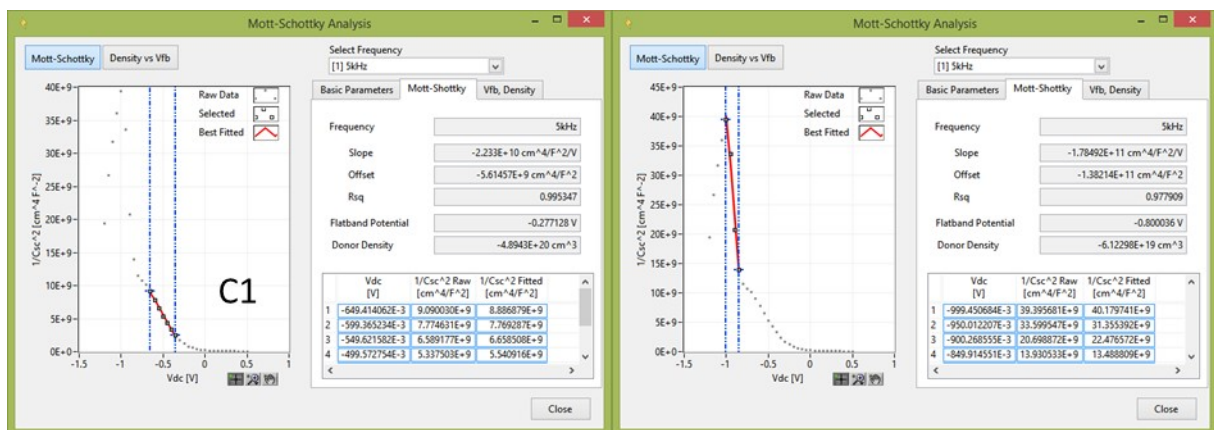
### **Additional experimental data**

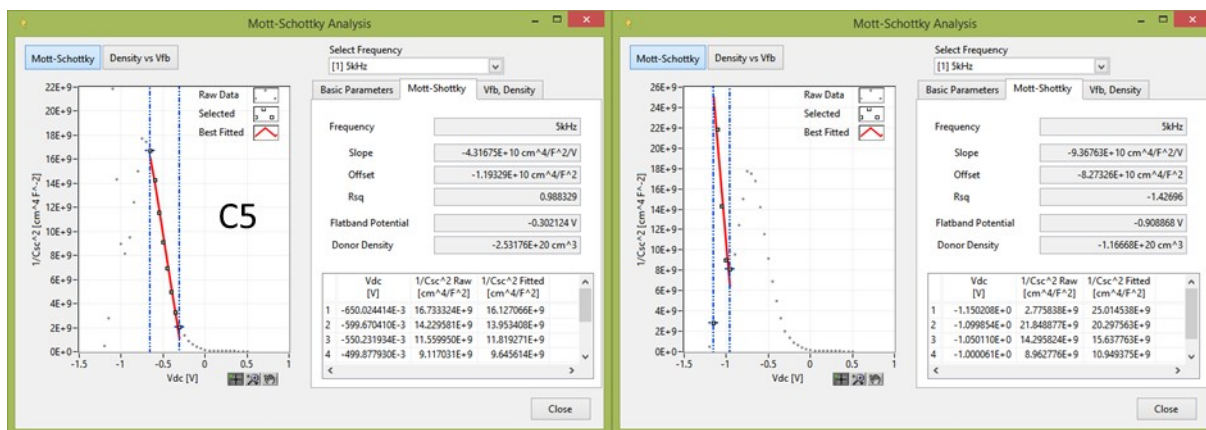


**Figure S1:** Chronoamperometry (current–time characteristic) of the 170 nm thick  $\text{Co}_3\text{O}_4$  photoelectrode at 0 V vs RHE, under pulsed light.



**Figure S2:** Thickness dependent Mott-Schottky characteristics of  $\text{Co}_3\text{O}_4$  samples. Here C1, C2, C3, C4 and C5 refers to the  $\text{Co}_3\text{O}_4$  film thickness of 70 nm, 100 nm, 170 nm, 200 nm, and 230 nm, respectively.





**Figure S3:** Analysis of Mott–Schottky characteristics of  $\text{Co}_3\text{O}_4$  samples. Here C1, C2, C3, C4 and C5 refers to the  $\text{Co}_3\text{O}_4$  film thickness of 70, 100, 170, 200 and 230 nm, respectively.