Supplementary Information

Rodrigo E. Palacios, Fu-Ren F. Fan, Allen J. Bard, and Paul F. Barbara*.*

Department of Chemistry and Biochemistry and the Center for Nano- and Molecular Science and Technology, University of Texas, Austin, TX 78712, USA.

p.barbara@mail.utexas.edu

RECEIVED DATE

Materials. F8BT (MW=100 kg/mol) was synthesized by CDT Ltd., and obtained as a gift. Polystyrene (MW=240 kg/mol), acetonitrile (HPLC grade, used without further purification), and lithium perchlorate ($LiClO_4$) were purchased from Sigma-Aldrich. ITO coated cover slips were purchased from Metavac. Custom-made silicone spacers were purchased from Grace Bio-Labs, Inc. Silver wire (25 μm) was purchased from Alfa Products. Silver paint was purchased from Acme Chemicals and Insulation Co.

Sample preparation and cell configuration. Figure 1 shows the spectro-electrochemical cell components and assembly. The working electrode (WE) was prepared by spin-casting toluene solutions of ~1 nM in F8BT and 0.09% (w/w) in polystyrene on a previously cleaned ITO electrode form. The counter electrode (CE) was made by thermal evaporating consecutive thin layers of chromium (15 nm) and gold (~70 nm) over a glass cover slip using a custom-made mask. Two silicone spacers were used to hold the silver wire quasi-reference electrode (QRE) and to create a chamber between the working and reference electrodes which was filled with acetonitrile solution of 0.1 M in $LiClO_4$. Electrical connections to the three electrodes were made using silver paint and copper wires.

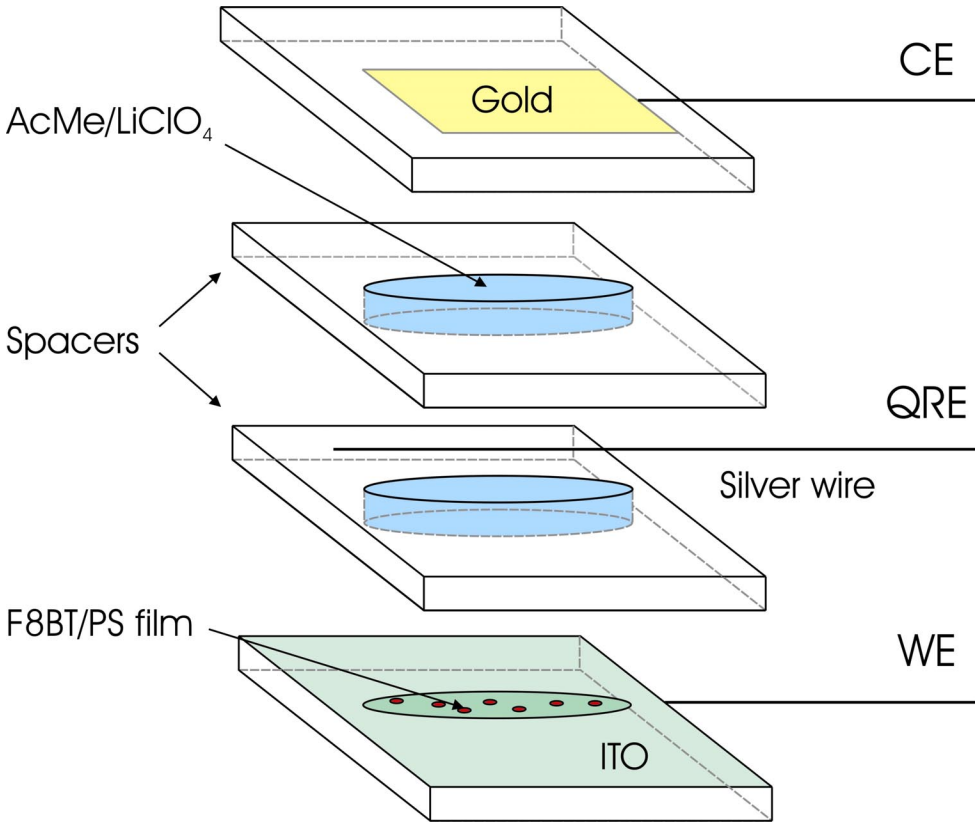

Figure 1. Spectro-electrochemical cell.