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# Role of Fullerene (Pristine versus Acid-functionalized) in Breaking the Dye Aggregates and its Impact on the Efficiency of Solar Cells.

## Supporting Information

*Syed Mujtaba Shah*, Zafar Iqbal, Muzaffar Iqbal, Naila Shahzad, Amina Hana, Hazrat Hussain and Muhammad Raheel.*

*Department Of Chemistry, Quaid-i-Azam University, Islamabad 45320, Pakistan.*

Corresponding author :

Email: smschem69@yahoo.com

Phone:0092-51-90642205

Fax: 0092-51-90642241

Postal Address: Dr. Syed Mujtaba Shah, Assistant Professor of Chemistry

Department of Chemistry, Quaid-i-Azam University, Islamabad, 45320, Pakistan.

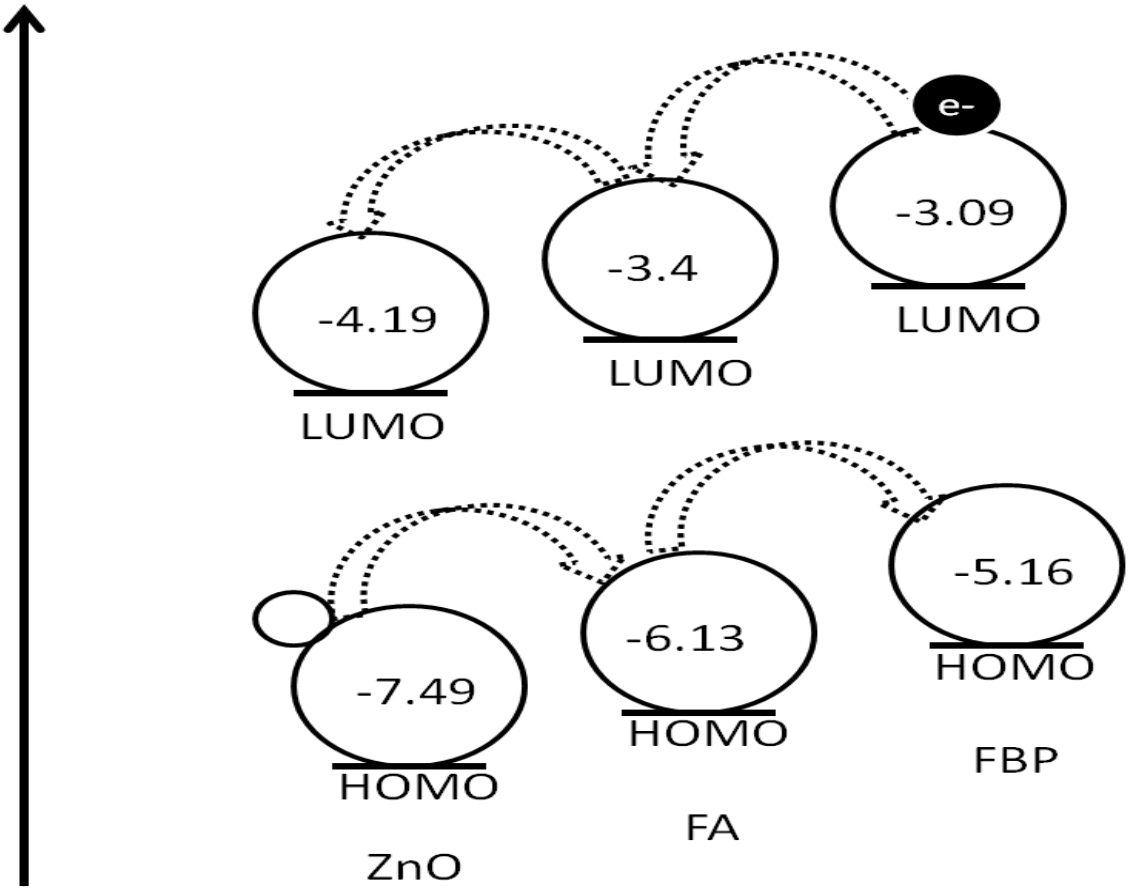


Figure S1: Energy level diagram showing the HOMO-LUMO levels of the component species of photo-active nanohybrid material to channelize electron transfer in the desired direction.The HOMO-LUMO levels of porphyrin (FBP) and fullerene (FA) were calculated from cyclic voltammetry whereas these values were taken from literature for ZnO [20].

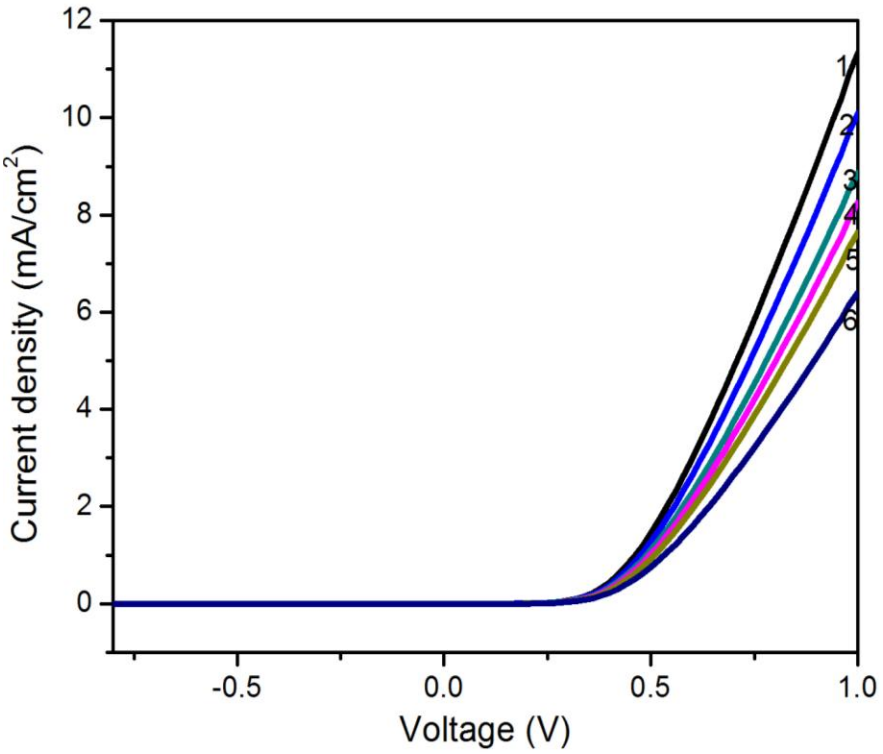


Figure S2: Current-voltage plots of P3HT+ZnO, P3HT+ZnO+FBP 5 × 10-5 M, P3HT+ZnO+FBP 1 × 10-4 M, P3HT+ZnO+F 1 × 10-4 M, P3HT+ZnO+FA 1 × 10-4 M and P3HT+ZnO+FBP+FA at comparable concentration. All plots were taken in the dark and all plots show excellent diode behavior.