

## Supplementary Materials

### **Bactericidal action and industrial dye degradation of graphene oxide and polyacrylic acid doped SnO<sub>2</sub> quantum dots: in silico molecular docking study**

Saira Riaz<sup>a</sup>, Muhammad Ikram<sup>a\*</sup>, Sadia Naz<sup>b</sup>, Anum Shahzadi<sup>c</sup>, Walid Nabgan<sup>d\*</sup>, Anwar Ul-Hamid<sup>e</sup>, Ali Haider<sup>f</sup>, Junaid Haider<sup>b</sup>, Ali Al-Shanini<sup>g\*</sup>

<sup>a</sup> Solar Cell Applications Research Lab, Department of Physics, Government College University Lahore, Lahore 54000, Punjab, Pakistan

<sup>b</sup> Tianjin Institute of Industrial Biotechnology, Chinese Academy of Sciences, Tianjin 300308, China

<sup>c</sup> Faculty of Pharmacy, The University of Lahore, Lahore 54000, Pakistan

<sup>d</sup> Departament d'Enginyeria Química, Universitat Rovira i Virgili, 43007 Tarragona, Spain

<sup>e</sup> Center for Engineering Research, Research Institute, King Fahd University of Petroleum & Minerals, Dhahran 31261, Saudi Arabia

<sup>f</sup> Department of Clinical Sciences, Faculty of Veterinary and Animal Sciences, Muhammad Nawaz Shareef, University of Agriculture, Multan 66000, Punjab, Pakistan

<sup>g</sup> College of petroleum and engineering, hadhramout university, mukalla, hadhramout, yemen.

Corresponding authors email: <sup>a</sup>[dr.muhammadikram@gcu.edu.pk](mailto:dr.muhammadikram@gcu.edu.pk), <sup>d</sup>[wnabgan@gmail.com](mailto:wnabgan@gmail.com), <sup>g</sup>[a.alshanini@hu.edu.ye](mailto:a.alshanini@hu.edu.ye)

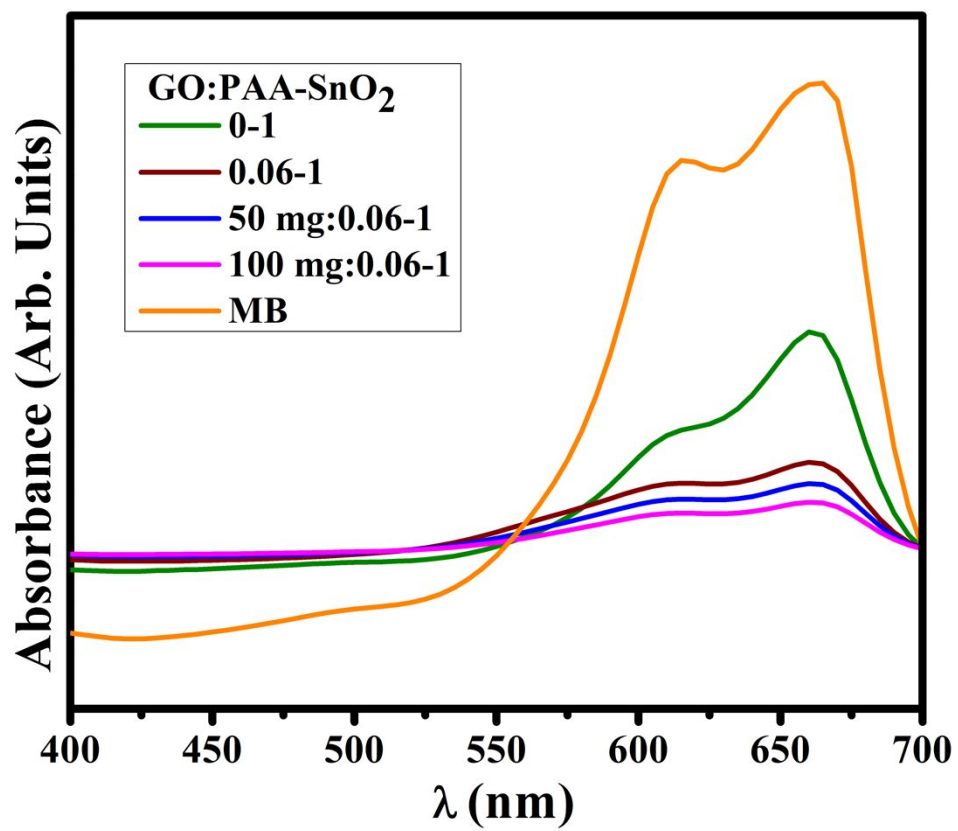


Figure S1: Absorption graph of GO/PAA-SnO<sub>2</sub> for degradation of MB dye