

**DR TAN TONG LING**

Postdoctoral Researcher

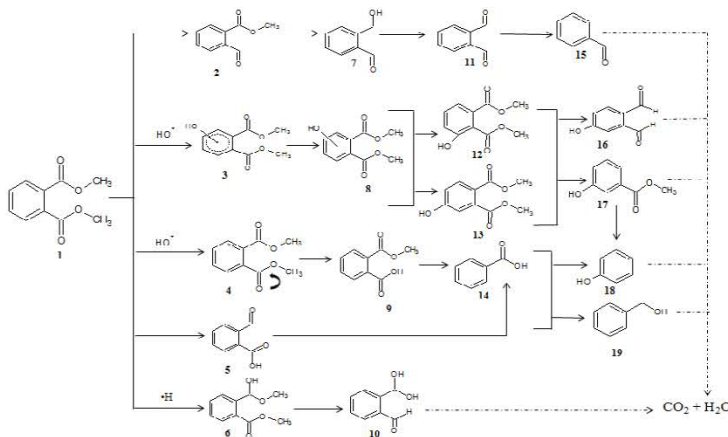
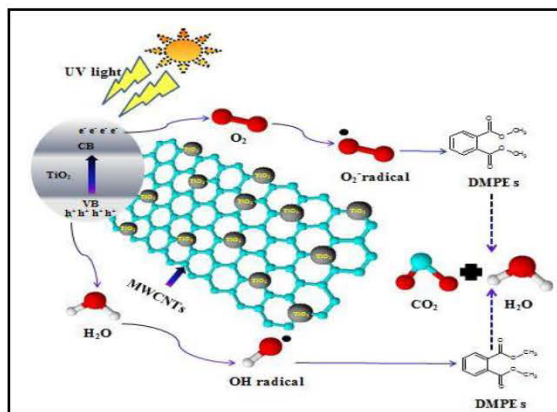
Nanomaterials Processing and Technology Laboratory

Email: tongling@upm.edu.my

Phone: +6010-968.4579

Google Scholar: [Link](#)Research Gate : [Link](#)**RESEARCH HIGHLIGHTS****1. Photocatalytic Degradation Mechanisms of Dimethyl Phthalate Esters by MWCNTs-anatase TiO₂**

Dimethyl phthalate esters (DMPEs) were used as the model compound to evaluate the photocatalytic activity of MWCNTs/TiO₂ photocatalyst and the degraded products were analysed using ultra-high-performance liquid chromatography-Orbitrap mass spectrometry (UHPLC-Orbitrap/MS/MS). This study gives an overall understanding on the transfer, transform and degradation of DMPEs by MWCNTs/TiO₂, coupled with a better insight into the mechanisms occurring under the oxidative and reductive conditions.

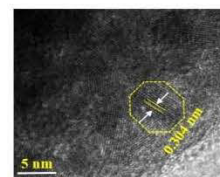
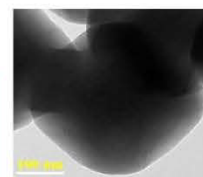
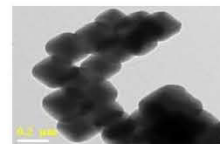
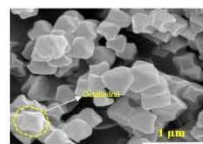
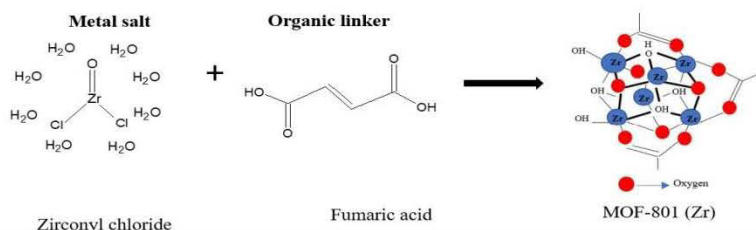


Tan, T. L., Lee, K. M., Lai, C. W., Hong, S. L., & Rashid, S. A. (2020).

Photocatalytic Degradation Mechanisms of Dimethyl Phthalate Esters by MWCNTs-anatase TiO₂ Nanocomposites using the UHPLC/Orbitrap/MS technique. *Advanced Powder Technology*, 31(2), 533-547.

2. Adsorptive, Kinetics and Regeneration Studies of Fluoride Removal from Water using Zirconium-based Metal Organic Frameworks

Adsorption is one of the widely considered appropriate technologies for water defluorination. The present study describes the preparation of zirconium-based metal organic frameworks (MOF-801) adsorbent using solvothermal method and its adsorption efficiency for removal of fluoride ion from water. All the results suggested that the synthesized MOF-801 has potential to be an excellent adsorbent for wastewater defluorination treatment.



Tan, T. L., Nakajima, H., & Rashid, S. A. (2020). Adsorptive, Kinetics and Regeneration Studies of Fluoride Removal from Water using Zirconium-based Metal Organic Frameworks. *RSC Advances*, 10(32), 18740-18752.