



**ASSOC. PROF. DR MOHAMAD AMRAN MOHD SALLEH**  
 Research Associate, Nanomaterials Processing and Technology  
 Laboratory  
 Expertise: Particle Technology, Biochar and Nanotechnology,  
 Carbonaceous Particulates  
 Email: [asalleh@upm.edu.my](mailto:asalleh@upm.edu.my)  
 Phone: +603.9769.6286

Google Scholar: [Link](#)  
 Scopus Author ID: [55796055000](#)

ResearchGate: [Link](#)

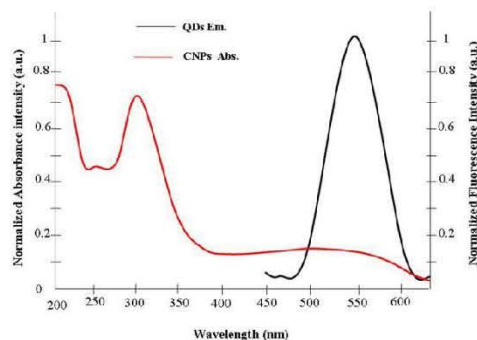
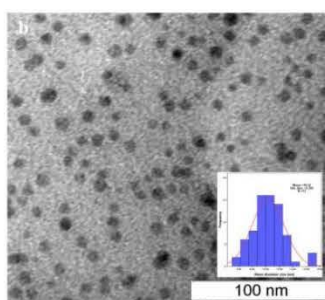
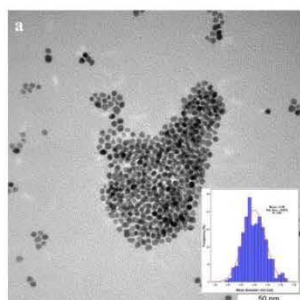


ORCID

## RESEARCH HIGHLIGHTS

### 1. Multivariable Optimization of Carbon Nanoparticles Synthesized from Waste Facial Tissues by Artificial Neural Networks, New Material for Downstream Quenching of Quantum Dots

In this study, water-soluble carbon nanoparticles (CNPs) were synthesized by using waste facial tissue as a non-recyclable waste and the efficiency of CNPs in quenching mechanism of cadmium-telluride quantum dots (QDs) was investigated.



### 2. Modified Cenospheres as Non-sacrificial Pore-forming Agent for Porous Mullite Ceramics

Porous mullite ceramics were produced using mullite precursor and modified cenospheres as a non-sacrificial pore-forming agent. The cenospheres used are aluminosilicate hollow spheres with high silica and alumina content, which are obtained from coal-fired power plant. In this study, the cenospheres were modified using aluminum trichloride hexahydrate ( $\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$ ), alkali/acid leaching and heat treatment. Various types and amounts of the modified cenospheres were mixed with mullite precursor to produce porous mullite ceramics for subsequent firing at  $1500^\circ\text{C}$ .

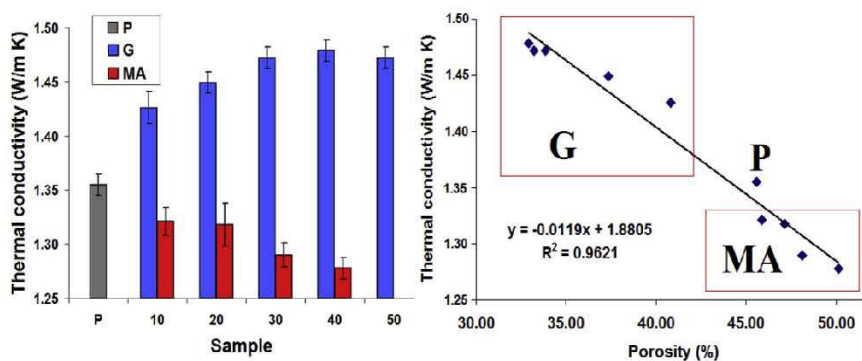


Fig. 7. Thermal conductivity of porous mullite ceramics with added graphite 'G' and modified cenospheres 'MA' (left graph), and their correlation with porosity (right graph).