

THE EDUCATION UNIVERSITY OF HONG KONG
FACULTY OF LIBERAL ARTS AND SOCIAL SCIENCES

Research Output Prize
for the Dean's Research Fund 2021/22

**Brief Introduction of Awardee's
Research Output/Publication and Future Research Development**

Awardee (Dept):	<u>Dr Tsang Yiu Fai, Associate Professor (SES)</u>
Publication/Research Output Title/project:	<u>N- and O self-doped biomass porous carbon cathode in an electro-Fenton system for chloramphenicol degradation</u>

A. *Briefly introduce your research output/publication for which you have received the prize.*

The N- and O self-doped biomass porous carbon (NOBPC) was successfully synthesized using the black soya bean as the precursor for cathode materials of an electro-Fenton system for the degradation of chloramphenicol. The NOBPC cathode material exhibited large surface areas, plentiful porous structure, and doping contents of nitrogen and oxygen, improving the electro-Fenton activity and stability. The results indicated that the chloramphenicol degradation undergoes dechlorination, denitration and the cleavage of the benzene ring for forming small molecular components.

B. *How you used/will use your prize and perhaps its usefulness to your research development?*

The prize will be used to recruit a research assistant and to support the necessary technical services to conduct follow-up experiments about this topic.

C. *Expected research outcomes/outputs/impacts arising from this prize.*

I expect that a ECF/ITF/GRF proposal will be developed for submission.