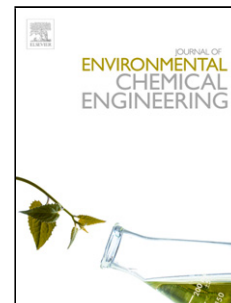


## Accepted Manuscript

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PII: S2213-3437(18)30156-8  
DOI: <https://doi.org/10.1016/j.jece.2018.03.035>  
Reference: JECE 2276

To appear in:

Received date: 8-12-2017  
Revised date: 15-3-2018  
Accepted date: 16-3-2018

Please cite this article as: Rosmawanie Mohd, Radin Mohamed, Adel Al-Gheethi, Fadzilla Pahazri, Amir Hashim, Shaylinda Mohd Zin, Sequestering of Pollutants from Public Market Wastewater using *Moringa oleifera* and *Cicer arietinum* Flocculants, Journal of Environmental Chemical Engineering <https://doi.org/10.1016/j.jece.2018.03.035>

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## Sequestering of Pollutants from Public Market Wastewater using *Moringa oleifera* and *Cicer arietinum* Flocculants

Rosmawanie Mohd, Radin Mohamed\*, Adel Al-Gheethi\*, Fadzilla Pahazri, Amir Hashim, Shaylinda Mohd Zin

Micro-pollutant Research Centre (MPRC), Department of Water and Environmental Engineering, Faculty of Civil and Environmental Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), 86400 Parit Raja, BatuPahat, Johor, Malaysia

\*Corresponding author E mail: [adel@uthm.edu.my](mailto:adel@uthm.edu.my); [maya@uthm.edu.my](mailto:maya@uthm.edu.my);

### Research highlight

- The use of *M. oleifera* resulted in the highest removal for BOD<sub>5</sub>, COD and O&G from the public market wastewater
- Adsorption of COD by *M. oleifera* was fitted to both the Langmuir and Freundlich isotherms, while the Freundlich isotherm was the best model to study COD and O& G removal by *C. arietinum*.
- The natural coagulants are applicable for improving the quality of public market wastewater.

### Abstract

The present study aimed to investigate potential of *Moringa oleifera* and *Cicer arietinum* seeds for the treatment of public market wastewater in comparison to Alum and FeSO<sub>4</sub>. The flocculation process was assessed as a function of adsorbent dose (60-360 mg/L), pH (4 to 9) and mixing rate (50 to 300 rpm). The adsorption study was performed to find out the removal of biological oxygen demand (BOD<sub>5</sub>), chemical oxygen demand (COD), total suspended solids

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