

Accepted Manuscript

Title: Study on adsorptive capability of acid activated charcoal for desulphurization of model and commercial fuel oil samples

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PII: S2213-3437(18)30314-2
DOI: <https://doi.org/10.1016/j.jece.2018.06.008>
Reference: JECE 2433

To appear in:

Received date: 6-3-2018
Revised date: 1-6-2018
Accepted date: 2-6-2018

Please cite this article as: Syed Sikandar Shah, Imtiaz Ahmad, Waqas Ahmad, Mohammad Ishaq, Kashif Gul, Razia Khan, Hizbullah Khan, Study on adsorptive capability of acid activated charcoal for desulphurization of model and commercial fuel oil samples, Journal of Environmental Chemical Engineering <https://doi.org/10.1016/j.jece.2018.06.008>

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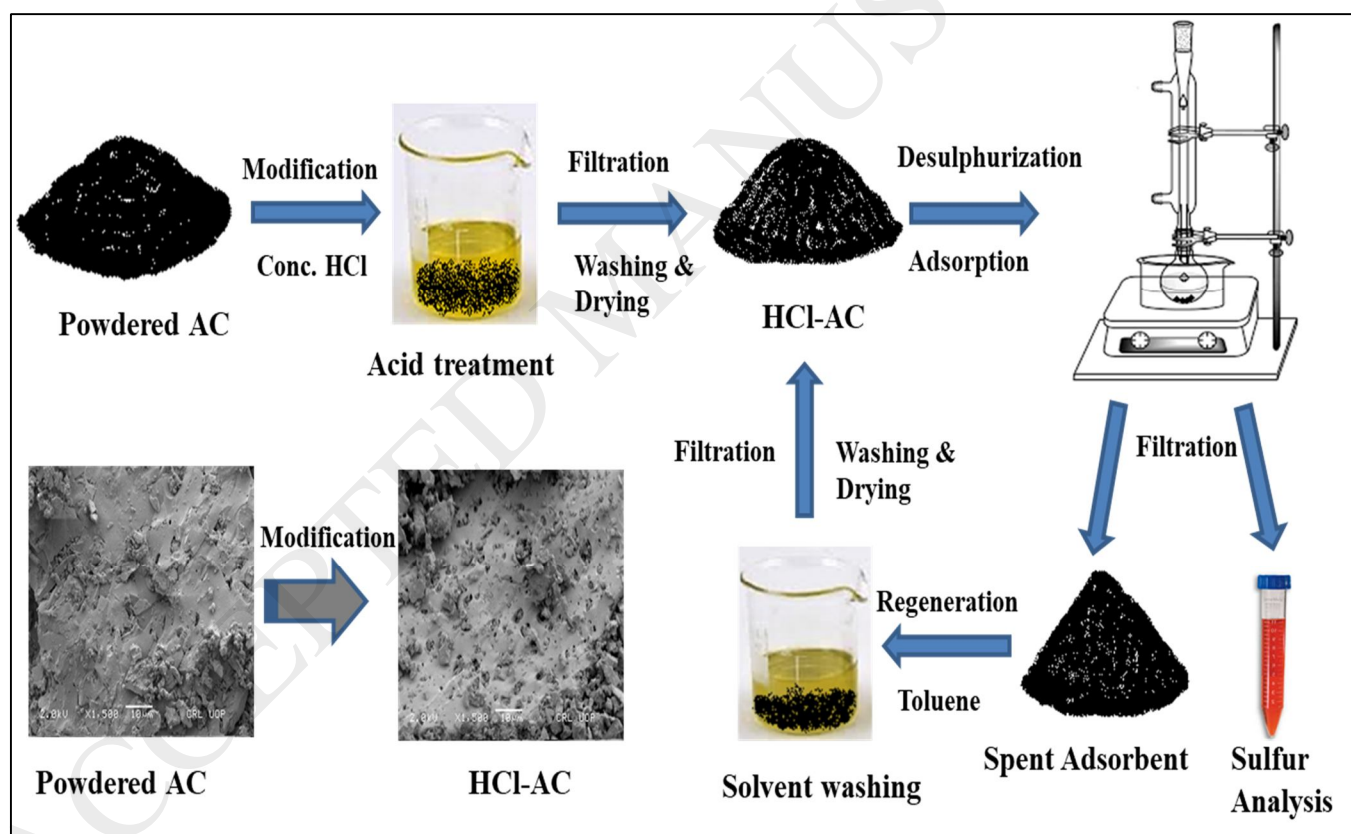
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Graphical Abstract



HIGHLIGHTS

- Activated charcoal was chemically modified with hydrochloric acid for the selective liquid-phase desulphurization of the model and real oil samples.
- DBT adsorption from the model oil follows pseudo-second order kinetics.
- The experimental data best fitted to both the Langmuir and Freundlich isotherm model.

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