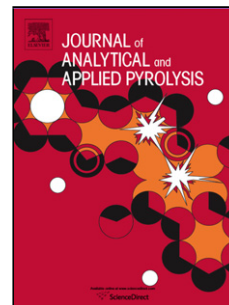


## Accepted Manuscript

Title: A technical review on semi-continuous and continuous pyrolysis process of biomass to bio-oil

Authors: Khan Muhammad Qureshi, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Wan Daud



PII: S0165-2370(17)30519-3  
DOI: <https://doi.org/10.1016/j.jaap.2018.02.010>  
Reference: JAAP 4263

To appear in: *J. Anal. Appl. Pyrolysis*

Received date: 9-6-2017  
Revised date: 10-12-2017  
Accepted date: 11-2-2018

Please cite this article as: Khan Muhammad Qureshi, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Wan Daud, A technical review on semi-continuous and continuous pyrolysis process of biomass to bio-oil, Journal of Analytical and Applied Pyrolysis <https://doi.org/10.1016/j.jaap.2018.02.010>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# A technical review on semi-continuous and continuous pyrolysis process of biomass to bio-oil

Khan Muhammad Qureshi, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa\*, Wan Mohd Ashri Wan Daud

Department of Chemical Engineering, Faculty of Engineering, University of Malaya, 50603 Kuala Lumpur, Malaysia.

\* Corresponding author e-mail address: faisal.abnisa@gmail.com

## Graphical Abstract



### Highlights

- Semi-continuous and continuous pyrolysis of biomass to bio-oil were reviewed.
- The feed treatment, feeding system, operating parameters and reactor types were discussed.
- The current status of existing pyrolysis reactor technology was provided.
- Additional particulates separation devices for quality product were evaluated.

### Abstract

Biomass pyrolysis processes for bio-oil production were commonly done using batch, semi-continuous or continuous process. However, past studies have shown many concerning issues in regard to the use of batch process such as high residence time, product inconsistencies across batches, high labor cost and difficulty in industrial scale up. With these, scientists are now placing a greater interest and focus in the study of semi-continuous and continuous pyrolysis processes with their commercialization and industrialization as the major outcomes. The production rates of

Download English Version:

<https://daneshyari.com/en/article/7606336>

Download Persian Version:

<https://daneshyari.com/article/7606336>

[Daneshyari.com](https://daneshyari.com)