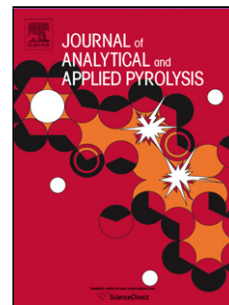


## Accepted Manuscript

Title: Evolution of sulfur during fast pyrolysis of sulfonated Kraft lignin

Authors: Tong Han, Nanta Sophonrat, Panagiotis Evangelopoulos, Henry Persson, Weihong Yang, Pär Jönsson



PII: S0165-2370(18)30191-8  
DOI: <https://doi.org/10.1016/j.jaap.2018.04.006>  
Reference: JAAP 4305

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

Received date: 26-2-2018  
Revised date: 5-4-2018  
Accepted date: 7-4-2018

Please cite this article as: Tong Han, Nanta Sophonrat, Panagiotis Evangelopoulos, Henry Persson, Weihong Yang, Pär Jönsson, Evolution of sulfur during fast pyrolysis of sulfonated Kraft lignin, Journal of Analytical and Applied Pyrolysis <https://doi.org/10.1016/j.jaap.2018.04.006>

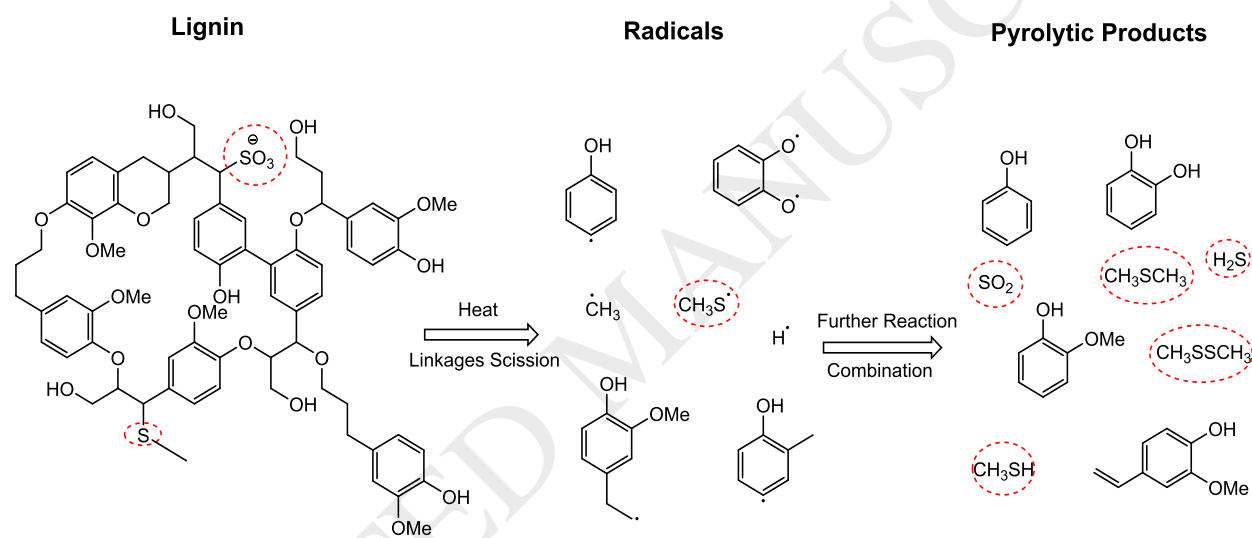
This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please 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.

# Evolution of sulfur during fast pyrolysis of sulfonated Kraft lignin

Tong Han\*, Nanta Sophonrat, Panagiotis Evangelopoulos, Henry Persson, Weihong Yang, Pär Jönsson

Royal Institute of Technology (KTH), Department of Material Science and Engineering, Group of Energy and Furnace Technology, Brinellvägen 23, 10044 Stockholm, Sweden

## Graphical abstract



## Highlights

- Sulfur containing products are mainly present as small molecular compounds.
- Sulfur-containing radicals preferentially combined with other small radicals.
- Sulfur is mainly present as sulfite and sulfide in the sulfonated Kraft lignin.
- Sulfite mainly results in the formation of  $\text{SO}_2$ .
- Sulfide leads to the formation of  $\text{H}_2\text{S}$ ,  $\text{CH}_3\text{SH}$ ,  $\text{CH}_3\text{SCH}_3$  and  $\text{CH}_3\text{SSCH}_3$ .

Download English Version:

<https://daneshyari.com/en/article/7606266>

Download Persian Version:

<https://daneshyari.com/article/7606266>

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