#### **Accepted Manuscript**

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PII: S0165-2370(18)30262-6

DOI: https://doi.org/10.1016/j.jaap.2018.06.002

Reference: JAAP 4339

To appear in: J. Anal. Appl. Pyrolysis

Received date: 26-3-2018 Revised date: 26-5-2018 Accepted date: 1-6-2018

Please cite this article as: Zhou J, Jin W, Shen D, Gu S, Formation of aromatic hydrocarbons from co-pyrolysis of lignin-related model compounds with hydrogen-donor reagents, *Journal of Analytical and Applied Pyrolysis* (2018), https://doi.org/10.1016/j.jaap.2018.06.002

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### ACCEPTED MANUSCRIPT

# Formation of aromatic hydrocarbons from co-pyrolysis of lignin-related model compounds with hydrogen-donor reagents

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## **Highlights**

- Co-pyrolysis of lignin-related model compounds with hydrogen-donor reagents is investigated.
- Production of aromatic hydrocarbons from monomeric model compounds is promoted by acetone.
- Radical fragments (H· and CH<sub>3</sub>·) from acetone facilitates the cracking of monomeric aromatics

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