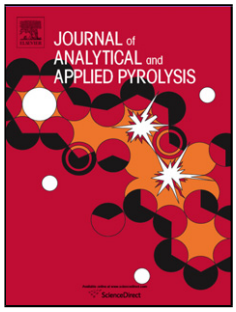
Accepted Manuscript



Title: Evaluation of chemical structure, pyrolysis reactivity and gaseous products of Shenmu coal of different particle sizes

Authors: Xiye Chen, Yan Zhao, Li Liu, Linyao Zhang, Zhuo Zhang, Penghua Qiu

PII: S0165-2370(17)30947-6
DOI: https://doi.org/10.1016/j.jaap.2017.12.019
Reference: JAAP 4218

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

Received date: 25-10-2017
Revised date: 24-12-2017
Accepted date: 31-12-2017

Please cite this article as: Xiye Chen, Yan Zhao, Li Liu, Linyao Zhang, Zhuo Zhang, Penghua Qiu, Evaluation of chemical structure, pyrolysis reactivity and gaseous products of Shenmu coal of different particle sizes, Journal of Analytical and Applied Pyrolysis https://doi.org/10.1016/j.jaap.2017.12.019

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.

ACCEPTED MANUSCRIPT

Evaluation of chemical structure, pyrolysis reactivity and gaseous products of Shenmu coal of different particle sizes

Xiye Chen[a], Yan Zhao[a,b], Li Liu[a], Linyao Zhang[a,*], Zhuo Zhang[a], Penghua Qiu[a,*]

[a] School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 150001, PR China

[b] Shenyang Academy of Environmental Science, Shenyang 110167, PR China

***Corresponding Authors**:

Penghua Qiu, Tel: +86-451-8641-3231, ext.804. E-mail: qiuph@hit.edu.cn

Linyao Zhang, E-mail: zhanglinyao1209@gmail.com

School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 150001, PR China.

Highlights

- Particle size can affect the content of hydrogen and some typical chemical groups.
- Pyrolysis reactivity decreases with particle size decreasing.
- Release of gaseous products decreases with particle size decreasing.

Abstract

In this study, chemical structure and pyrolysis reactivity of six different coal particle fractions were researched using Fourier transform infrared spectroscopy (FT-IR) and thermogravimetric analysis (TGA), respectively. An on-line FTIR was applied to assess the evolution characteristics of

Download English Version:

https://daneshyari.com/en/article/7606502

Download Persian Version:

https://daneshyari.com/article/7606502

Daneshyari.com