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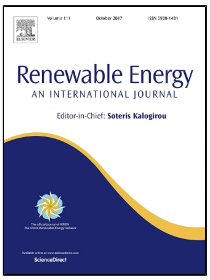


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# Influence of phosphorous based additives on ash melting characteristics during combustion of biomass briquette fuel

Qian Wang, Kuihua Han*, Jiamin Wang, Jie Gao, Chunmei Lu[a]

[a] *School of Energy and Power Engineering, Shandong University, Jinan 250061, China*

* Corresponding author. Tel.: +86 531 88392414; fax: +86 531 88392701.

E-mail address: hankh@163.com (K. Han).

**Nomenclature**

$M_{ar}$ Moisture

$A_{ar}$ Ash

$FC_{ar}$ Fixed carbon

$V_{ar}$ Volatile

MS Maize straws

CS Cotton stalks

ADP Ammonium dihydrogen phosphate, $NH_4H_2PO_4$

CPM Calcium phosphate monobasic, $Ca(H_2PO_4)_2$

$\varphi$ Ratio of the mass yield, %

$m_1$ Mass of the initial briquette, mg

$m_2$ Mass of the solid residual, mg

$\eta$ Potassium fixed ratio, %

$\omega_1$ Content of the potassium in the initial sample, %

$\omega_2$ Content of the potassium in the residual ash, %

$\beta$ Changing rate of the potassium fixed ratio, %

**Abstract**