

Reference Type

Journal Article

Record Number

9

Author

Lu, Guoqing

Wang, Qingyue

Sakamoto, Kazuhiko

Kim, Heejoon

Naruse, Ichiro

Yuan, Jianwei

Maruyama, Toshihiko

Kamide, Mitsushi

Sadakata, Masayashi

Year

2000

Title

Experimental Study on Combustion and Pollutant Control of Biobriquette

Journal

Energy & Fuels

Volume

14

Issue

6

Pages

1133-1138

Start Page

Epub Date

Date

Type of Article

Short Title

Alternate Journal

ISSN

DOI

doi:10.1021/ef990115s

Original Publication

Reprint Edition

Reviewed Item**Legal Note****Accession Number****Call Number****Label****Keywords****Abstract**

To control pollutant emissions from the combustion of both domestic stoves and small-capacity industrial boilers, an artificial solid fuel called biobriquette has been developed. It is manufactured from a mixture of coal, biomass (sawdust), and desulfurizer under a high compression pressure. In this study, the combustion experiments were performed to elucidate the ignition and combustion characteristics of biobriquette. Comparisons were made between coal briquettes and biobriquettes for their combustion efficiencies and pollutant emissions in existing domestic stoves. Byproduct in the gas welding industry was used as a new desulfurizer in the biobriquette, and its desulfurization characteristics were studied. The experimental result shows that the biobriquette has a lower ignition temperature and a higher combustion efficiency than the coal briquette. The new desulfurizer was found to be more effective in desulfurization than the other two desulfurizers, limestone and scallop shell. It is also found that the biobriquette combustion in domestic stoves gives lower CO₂ emission than the normal coal briquette. The developed biobriquette provides a simple, economical, and efficient way for coal utilization and pollutant control in some developing countries.

Notes**Research Notes****URL**

<http://pubs.acs.org/doi/abs/10.1021/ef990115s>

File Attachments**Author Address****Figure****Caption****Access Date****Translated Author**

Translated Title

Name of Database

Database Provider

Language