energy&fuels

APRIL 2018
VOLUME 32 ISSUE 4

ENFUEM 32(4) 4065−5664 (2018)
ISSN 0887-0624
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5664 DOI: 10.1021/acs.energyfuels.8b01218

Correction to The Effect of Swirl Number and Oxidizer Composition on Combustion Characteristics of Non-Premixed Methane Flames

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Supporting Information available via online article

energy&fuels Editorial

Cite This: Energy Fuels 2018, 32, 4065−4068 pubs.acs.org/EF

6th Sino-Australian Symposium on Advanced Coal and Biomass Utilisation Technologies

This series of Sino-Australian Symposia was initiated by the Australian partner Curtin University (Curtin) and Chinese partner Huazhong University of Science and Technology (HUST) in 2006. The objectives have always been providing a regular platform for research exchange among Australian, Chinese, and other international researchers in the field of coal and biomass utilization technologies. These were successfully achieved in the first five symposia held in Wuhan, China, resulting in five special sections[1−5] in *Energy & Fuels*. Upon the conclusion of the fifth symposium[5] in 2015, both Australian and Chinese teams unanimously agreed to hold the next symposium in Australia.

The sixth symposium was successfully held at the Hyatt Regency, Perth, Western Australia, from December 4 to 8, 2017. It was a great success and received a large number of full paper submissions in the themes of the symposium. All submissions were subjected to the screening process of the editorial office and the subsequent rigorous peer review process, with the following papers being included in the special section.

Topic Review. This special section includes three topic reviews. Rabaçal et al. (10.1021/acs.energyfuels.7b03258)[6] review the recent development in the combustion of pulverized non-woody residues, including both experimental and numerical studies. Wang et al. (10.1021/acs.energyfuels.7b03003)[7] provide an overview on the recent advance in a micro fluidized bed and its application to gas−solid reaction analysis. Liu et al. (10.1021/acs.energyfuels.7b03164)[8] summarize some recent progress in electrochemical oxidation of carbon through a solid oxide fuel cell at a high temperature.

Hydrothermal Processing. There are four contributions on this topic. Jiang and Savage (10.1021/acs.energyfuels.7b03144)[9] determine the effects of process variables on 13 elements in biocrude and the aqueous product during hydrothermal liquefaction of microalgae. Buendia-Kandia et al. (10.1021/acs.energyfuels.7b02994)[10] employ advanced analytical strategies to understand the reaction pathways of cellulose hydrolysis in hot-compressed water. Liang et al. (10.1021/acs.energyfuels.7b03239)[11] use density Car−Parrinello molecular dynamics combined with metadynamic simulations to understand the acid-catalyzed ring opening of furan in aqueous solution. Lane et al. (10.1021/acs.energyfuels.7b03125)[12] report the effect of hydrothermal carbonization on the devolatilization behavior and char reactivity of agricultural residues and macroalage.

Pyrolysis. There are four papers on this topic. Dai et al. (10.1021/acs.energyfuels.7b03038)[13] investigate the influence of torrefaction on the structure and pyrolysis behavior of lignin. Wilson et al. (10.1021/acs.energyfuels.7b03221)[14] characterize the functionalized biochars produced from pyrolysis of biomass and calcium oxide mixtures. Chen et al. (10.1021/acs.energyfuels.7b03172)[15] carry out a process simulation and techno-economic analysis on a mobile autothermal pyrolysis system. Zhuo et al. (10.1021/acs.energyfuels.7b03224)[16] develop an integrated numerical model to predict the pyrolysis of ellipsoidal low-rank coal briquettes in a packed-bed pyrolyzer.

Combustion. This special section includes five papers on this topic. Saha et al. (10.1021/acs.energyfuels.7b03158)[17] compare the burning characteristics of pulverized biomass and coal under moderate or intense low-oxygen diluted combustion conditions. Kirch et al. (10.1021/acs.energyfuels.7b03152)[18] investigate the influence of primary and secondary air supply on gaseous emission from biomass combustion in a small-scale staged combustor. Zhang et al. (10.1021/acs.energyfuels.7b03145)[19] study the ignition and combustion behavior of single particles of Zhundong lignite. Tian et al. (10.1021/acs.energyfuels.7b03167)[20] report the self-heating of agricultural residues during storage and evaluate its impact on fuel properties. Liu et al. (10.1021/acs.energyfuels.7b03143)[21] compare the high-temperature corrosion characteristics of boiler steels when firing coal and biomass.

Gasification. There are five papers on gasification. Watanabe (10.1021/acs.energyfuels.7b03227)[22] uses the X-ray computed tomography to visualize the intraparticle structure of woody biomass and its chars and further studies its impact on gasification characteristics. Zahara et al. (10.1021/acs.energyfuels.7b03147)[23] develop a quantitative model to describe the gasification rate catalyzed by inherent metallic species. Yin et al. (10.1021/acs.energyfuels.7b03201)[24] investigate the catalytic activity of natural calcium-rich minerals and a novel dual-supported $CaO-Ca_{12}Al_{14}O_{33}/Al_2O_3$ catalyst for tar removal. He et al. (10.1021/acs.energyfuels.7b03129)[25] identify the ash−bed material interaction mechanisms during the combustion and steam gasification of agricultural residues. Shen et al. (10.1021/acs.energyfuels.7b03111)[26] investigate the chemical looping gasification of coal in a 5 kW_{th} interconnected fluidized bed with a two-stage fuel reactor.

Oxy-fuel Technologies. There are five papers related to oxy-fuel technologies. Liu et al. (10.1021/acs.energyfuels.7b03126)[27] explore the formation of sub-micrometer aerosol from the combustion of two coals under various air and oxy-combustion atmospheres, using a 100 kW down-fired combustor. Gao et al. (10.1021/acs.energyfuels.7b03189)[28] employ an optically accessible flat-flame burner to reveal the effect of CO_2 and H_2O on the formation of incipient ultrafine particulate matter (PM) from the combustion of a high-sodium lignite under oxy-fuel conditions. Wu et al. (10.1021/acs.energyfuels.7b03161)[29] study the impacts of oxy-fuel conditions on ash properties and sintering behavior from the combustion of a pulverized sub-bituminous coal at 1300 °C in a drop-tube furnace. Chen et al. (10.1021/acs.energyfuels.7b03171)[30] simulate the vaporization of inorganic matter

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Published: March 23, 2018

DOI: 10.1021/acs.energyfuels.8b00914
Energy Fuels 2018, 32, 4065−4068