



Editorial Advanced Coal, Biomass and Waste Conversion Technologies

Shuli Shu and Jamal Chaouki *

Chemical Engineering Department, École Polytechnique de Montreal, C.P. 6079 succ. Centre-Ville, Montreal, QC H3C 3A7, Canada; shuli.shu@polymtl.ca

* Correspondence: jamal.chaouki@polymtl.ca

Received: 28 October 2019; Accepted: 17 February 2020; Published: 24 February 2020



Coal, biomass and waste, which are abundant, are considered to the foremost raw material that can potentially replace the depleting economically-viable oil resources and promote the energy and environment sustainability. Complex constituents in coal, biomass and waste make their efficient and environmental utilization still challenging. In this special issue of *C*, the readers can appreciate the latest efforts have been made in this field from the fundamental research to industrial process development.

In the fundamental laboratory research, Zhao et al. (2019) [1] demonstrated the concept for a bio-catalytic system that simultaneously combines the dehydrogenation of formic acid for H2, in-situ capture of CO2 and its re-hydrogenation to reform formic acid; Ramanujam et al. (2019) [2] proved that polyol can be synthesized with corn oil and 2-mercaptoethanol, which can be an alternative to the petroleum-based polyol for the synthesis of polyurethane foams; Ossler and Hetherington (2019) [3] analyzed nanostructures on the surface of burnt spaghetti using scanning electron microscopy (SEM), transmission electron microscopy (TEM), and energy-dispersive X-ray spectroscopy (EDX); Bergna et al. (2018) [4] used a one-stage process to carbonize and steam-active two different wooden biomasses (birch and pine) into activated carbons. In the industrial process development, current practices on treating the cattle manure were reviewed by Font-Palma (2019) [5].

As Guest Editors of this Special Issue, we would like to appreciate all authors' excellent contributions, and we would also hope that this Special Issue can be helpful for the readers.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Zhao, Z.; Yu, P.; Shanbhag, B.K.; Holt, P.; Zhong, Y.L.; He, L. Sustainable Recycling of Formic Acid by Bio-Catalytic CO₂ Capture and Re-Hydrogenation. *C* **2019**, *5*, 22. [CrossRef]
- 2. Ramanujam, S.; Zequine, C.; Bhoyate, S.; Neria, B.; Kahol, P.K.; Gupta, R.K. Novel Biobased Polyol Using Corn Oil for Highly Flame-Retardant Polyurethane Foams. C **2019**, *5*, 13. [CrossRef]
- 3. Ossler, F.; Hetherington, C.J. Finger-Like Carbon-Based Nanostructures Produced by Combustion of Flour-Based Sticks (Spaghetti). *C* 2019, *5*, 21. [CrossRef]
- 4. Bergna, D.; Romar, H.; Lassi, U. Physical Activation of Wooden Chips and the Effect of Particle Size, Initial Humidity, and Acetic Acid Extraction on the Properties of Activated Carbons. *C* **2018**, *4*, 66. [CrossRef]
- 5. Font-Palma, C. Methods for the Treatment of Cattle Manure—A Review. C 2019, 5, 27. [CrossRef]



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).