

Special Issue on Biomass Materials for Metallurgical Applications

CALL FOR PAPERS

Steels and other metals are by far the most widely used of metallic materials and will continue to be vitally important to our society. However, production of steel and other metal products from virgin raw materials is currently energy intensive, requires substantial use of fossil-based carbon sources, such as coal and coke, and results in high CO₂ emissions. Based on the statistics available, the production of primary metals is believed to contribute about 5-6% to total world greenhouse gas emissions. Hence there have been considerable efforts over the years in examining the use of biomass based materials in primary metal production as a fuel and reductant in place of fossil fuel carbon sources. The biomass material is not only CO₂ neutral, but also likely contains less S, N, Cl, and other heavy metal elements, which are harmful to both the environment and human health as well as metal quality.

The special issue on the biomass materials for metallurgical applications is dedicated to the recent advances in the characterisation, processing, and utilisation of biomass materials for metallurgical operations. We solicit high quality and original research articles as well as review papers.

Potential topics include but are not limited to the following:

- ▶ Advanced characterisation techniques of biomass materials
- ▶ Fundamental research related to the applications of biomass materials for primary metal productions
 - ▶ Pyrolysis of raw biomass materials
 - ▶ Biomass/gas reactions
 - ▶ Biomass/ore reactions
 - ▶ Biomass/liquid metal interactions
- ▶ Lab, pilot, and plant scale investigation of the applications of biomass materials for primary metal productions
- ▶ Life cycle assessment of the economic and environmental aspects of biomass utilisation in primary metal productions

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/amse/bmma/>.

Lead Guest Editor

Liming Lu, CSIRO Mineral Resources,
Pullenvale (Brisbane), Australia
liming.lu@csiro.au

Guest Editors

Xianchun Li, University of Science and
Technology Liaoning, Anshan, China
askd1972@163.com

Merrick Mahoney, University of
Newcastle, Callaghan (Newcastle),
Australia
merrick.mahoney@newcastle.edu.au

Zhiqiang Zhang, University of Science
and Technology Liaoning, Anshan,
China
henrry1964@163.com

Manuscript Due

Friday, 26 May 2017

First Round of Reviews

Friday, 18 August 2017

Publication Date

Friday, 13 October 2017