

**SUBMIT AN ABSTRACT BY JULY 1**

**THE WORLD COMES HERE**

**TMS 2020**

**149<sup>th</sup> Annual Meeting & Exhibition**

February 23-27, 2020 • San Diego, California, USA



Submit an abstract to:

## Energy & Environment

### Recycling of Secondary, Byproduct Materials and Energy

There has been a significant mismatch between the technical needs for responsible treatment of secondary, byproduct materials and embodied energy of materials and the ability to achieve economically feasible and sustainable operations. These materials and their embodied energy are generally low value and can be quite complex due to the significant variation in properties leading to potential mismatch among complexity, regulations and available resources. This symposium will provide a forum for papers exploring the valorization of materials and their embodied energy including byproducts or coproducts from ferrous and nonferrous industries, batteries, electronics, and other complex secondary materials. Those papers providing perspective on both the technical as well as policy-based challenges are encouraged to submit.

#### ORGANIZERS

**Mingming Zhang**, ArcelorMittal Global R&D, USA

**John Howarter**, Purdue University, USA

**Elsa Olivetti**, Massachusetts Institute of Technology, USA

**Alan Luo**, Ohio State University, USA

**Adam Powell**, Worcester Polytechnic Institute, USA

**Ziqi Sun**, Queensland University of Technology, Australia

#### SYMPOSIUM SPONSORS

TMS Extraction & Processing Division

TMS Functional Materials Division

TMS Light Metals Division

TMS Recycling and Environmental Technologies Committee

Abstract Deadline is July 1, 2019. Submit online at  
[www.programmaster.org/TMS2020](http://www.programmaster.org/TMS2020).

Questions?  
Contact [programming@tms.org](mailto:programming@tms.org)