

**2022 International Conference on the Cooperation  
and Integration of Industry, Education, Research and  
Application**

**—‘Low-carbon metallurgy and advanced materials’ session**

November 10, 2022, 16: 00-20: 00 (GMT+8)

**Biyuan Hall, Iron & Steel Building, WUST, Wuhan, China**

**Online: VooV meeting (Conference ID: 729 337 034)**

**Supported by**

- Ministry of Education of P. R. China
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**Hosted by**

- National Center for Schooling Development Programme

**Organized by**

- Department of Education of Hubei Province
- Wuhan University of Science and Technology

## 1. Session Topic

Low-carbon metallurgy and advanced materials

## 2. Time Schedule

Time	Presentation	Presenter	Chairman
16:00-16:10	Opening ceremony	(1) Mr. Nianping Huang, Director of foreign cooperation and exchange office, Department of Education of Hubei Province (2) Prof. Yong Lv, Vice president of WUST	Prof. Qiaoling Xiao, Director of the office of international relations of WUST
16:10-16:15	<b>Group photo</b>		
16:15-16:40	Casting and cooling-down of high zirconia fused-cast refractories	Prof. Michel Boussuge, MINES Paris-PSL, France	Prof. Ao Huang, Wuhan University of Science and Technology, China
16:40-17:05	Effect of matrix porosity and prepreg-tack on mechanical properties and processing of oxide ceramic matrix composites	Prof. Stefan Schaff öner, University of Bayreuth, Germany	
17:05-17:30	Advanced materials & technologies for minimizing CO <sub>2</sub> footprint: Challenges & Scope	Prof. Mithun Nath, Wuhan University of Science and Technology, China	
17:30-17:50	<b>Break</b>		
17:50-18:15	Hydrogen based steel production- A comparison of possible routes	Prof. Johannes Schenk, Montanuniversitate Leoben, Austria	Prof. Guojun Ma, Wuhan University of Science and Technology, China
18:15-18:40	From educating engineers to halting climate change-opportunities, challenges, and lessons learned	Dr. Johan Zietsman, University of Pretoria, South Africa	
18:40-19:00	Numerical simulation of heat transfer for Al-Si@Al <sub>2</sub> O <sub>3</sub> composite phase change heat storage particles	Qiulin Xia, Wuhan University of Science and Technology, China	Associate Prof. Shengqiang Song, Wuhan University of Science and Technology, China
19:00-19:20	Evolution of inclusions in light-density and high-strength steel used for low CO <sub>2</sub> emission automobile industry: Thermodynamic modeling and experimental investigation	Jinlong Wang, Wuhan University of Science and Technology, China	
19:20-19:50	Round-table conference	Prof. Michel Boussuge, Prof. Johannes Schenk, Dr. Johan Zietsman, Prof. Stefan Schaff öner, Prof. Mithun Nath	Prof. Yaowu Wei, Wuhan University of Science and Technology, China
19:50-20:00	Closing remarks	Prof. Yawei Li, Wuhan University of Science and Technology, China	