



First Announcement / Call for Papers



2023 International Symposium on Hydrogen Metallurgy (ISHM2023)

September 5-7, 2023

Chongli, Hebei Province, China

Organized by



河钢集团
HBIS GROUP



HBIS Group

The Chinese Society for Metals

Co-organized by



University of Science and
Technology Beijing



冶金工业信息标准研究院
CHINA METALLURGICAL INFORMATION AND STANDARD RESEARCH INSTITUTE

China Metallurgical Information
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世界钢铁发展研究院
World Steel Development Research Institute

World Steel Development
Research Institute

Conference Website: www.ishm2023.com

General Information

2023 International Symposium on Hydrogen Metallurgy (ISHM2023) will be held on September 5-7, 2023 in Chongli, Hebei Province, China, a well-known beautiful and Olympic city in China.

After more than 20 years rapid development, the world steel industry has entered a new period. Making further increase of steel production has not been the priority of the steel industries of major steel production countries. Emphasis of the R&D works has or will be shifted to developing the technologies for sustainable development, i.e. technologies for ever enhancing production efficiency, making steels with ever higher properties, more friendly to environment, providing ever better services for customers, etc.

For promoting exchange of ironmaking technologies in the new period, The Chinese Society for Metals and HBIS Group would like to launch and organize an international symposium in the fields of hydrogen metallurgy. The aim of this symposium is to provide a platform for the academia, researchers and engineers all around the world to exchange state-of-the-art development and information on issues related to hydrogen metallurgy, and promote the fundamental study and process innovation in the fields of hydrogen metallurgy.

ISHM2023 aims at examining the key aspects involved in hydrogen metallurgy: fundamental theory, hydrogen utilization, life cycle evaluation of hydrogen metallurgy process, low-cost hydrogen production process, other theoretical and technical research. We kindly invite you to participate in this meaningful symposium and are looking forward to meeting you in the golden autumn in China.

Topics

The Conference will cover topics concerning the following issues:

1. Fundamental theory of hydrogen metallurgy:

Fundamental theory of thermodynamic, kinetic, hydrodynamic and microstructural evolution processes of hydrogen behavior in iron making or other metallurgical processes.

2. Hydrogen utilization in raw materials preparing:

The utilization of hydrogen-bearing gas in the preparation of raw materials for sintering, pellets, coking, etc.

3. Hydrogen utilization in blast furnace ironmaking:

Theoretical and technological research on injection of coke oven gas, H₂, natural gas, syngas etc. into blast furnace.

4. Hydrogen utilization in novel ironmaking process:

Utilization of hydrogen in alternative ironmaking processes including gas-based direct reduction, fluidized bed, smelting reduction, plasma hydrogen reduction, etc.

5. Life cycle evaluation of ironmaking process using hydrogen:

Mass flow, energy flow, CO₂ emission reduction, etc., in ironmaking process using hydrogen.

6. Low-cost hydrogen production process for metallurgical industry: grey hydrogen, blue hydrogen, green hydrogen preparation technology.

7. Any theoretical and technical research about the safe and high-efficient utilization of hydrogen in any unit process in the whole iron and steelmaking process, and other theoretical and technical research on hydrogen metallurgy.

8. Hydrogen utilization in transportation, steel chemical co-production and the hydrogen metallurgy standards.

Official Language

Official language for the symposium is English.

Call for Papers

All contributions on the theme of the symposium as described previously are welcome.

Prospective authors are invited to submit the abstract of 300 words (in English) to the conference secretariat through the conference website: www.ishm2023.com before **June 15, 2023**. The abstract should provide sufficient information for a fair assessment.

Important Dates

Abstract Submission Deadline	June 15, 2023
Notification to Authors	June 30, 2023
Second Announcement	July 15, 2023
Technical Program	August, 2023
Registration Date	September 4, 2023
Conference Date	September 5-6, 2023
Post Technical-Visit	September 7, 2023

Post Technical-Visit

Date: Thursday, September 7, 2023

Visiting Company: HBIS Group Zhangxuan High Tech

Introduction:

HBIS Group Zhangxuan High Tech

Zhangxuan High Tech (formerly Xuansteel), is a backbone subsidiary of HBIS Group. It is located in Zhangjiakou, one of the venues where the 2022 Winter Olympics was held. Zhangxuan High Tech is one of the earliest steel plants in China, with a history of 104 years. In recent years, with the goal of building a successful model of green and low-carbon transformation in the steel industry, HBIS Zhangxuan High Tech has built "three bases" of key materials manufacturing for high-end equipment, strategic emerging industries and modern service industries. Zhangxuan High Tech has constructed the world's first shaft furnace direct reduction hydrogen metallurgy project using hydrogen-rich gas (coke oven gas) zero reforming technique.



Sponsorship Opportunities

In conjunction with ISHM2023, The Chinese Society for Metals would like to invite you as a plant manufacturer and plant supplier in the field of hydrogen metallurgy to actively participate in our symposium.

It is estimated that many experts in the steel industry from all over the world will participate in ISHM2023. Your contribution and participation will help us make the symposium a successful event.

You should not miss this opportunity to promote new products, outline services and highlight key achievements to the delegates of ISHM2023. This is an excellent opportunity to do business and maintain key contacts with customers and suppliers.

Companies interested in becoming a sponsor are kindly requested to send an email to the conference secretariat (ishm2023@csm.org.cn).

Conference Secretariat

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