

2nd circular of 2023 International Conference on Secondary Refining and Inclusion Controlling (SRIC 2023)

August 23-25, 2023

Yunnan Lianyun Hotel (连云宾馆), Kunming, China

INTRODUCTION

Secondary refining and inclusion controlling, closely related to steel quality, are important topics in steelmaking. Metallurgists from all over the world have conducted numerous research works and obtained fruitful achievements in this domain. In order to promote academic communication in the relevant fields, the biennial Chinese Conference on Secondary Refining, Steel Quality, and Non-metallic Inclusion Controlling has been held under the support of Chinese Society of Metals (CSM) and joint organization of the University of Science and Technology Beijing, Bao Steel, Beijing Society of Metals, Zhejiang Society of Metals, and Steelmaking Branch of CSM. In recent years, the national conference has developed to be a landmark event for Chinese metallurgists from universities, institutes, and companies to share the state-of-the-art technologies and developments related to the specific requirements of secondary refining, steel quality, and non-metallic inclusion controlling.

Faced with high-speed development of global science and technology, especially the rapid progress of intelligence and low-carbon metallurgical technologies, the conference committee decided to upgrade the national conference into an international event, aiming to build a bridge of international communication in the relevant fields and encourage metallurgists from all over the world to work together for the progress of metallurgical technologies.

The “2023 International Conference on Secondary Refining and Inclusion Controlling” is planned to be held at **August 23-25, 2023** in **Kunming**, China. The official language of the conference will be Chinese and English. The deadline of article submission is **July 31, 2023**.

THEME

The theme of the conference covers a broad spectrum in relation to

- (1) New concepts, processes and technologies in steelmaking, secondary refining and steel quality controlling;
- (2) Theoretical research, process optimization, technical research and development, and development trend on secondary refining and inclusion controlling technology;
- (3) Application of artificial intelligence, big data and advanced detection technology on secondary refining, steel quality and inclusion controlling;
- (4) Intelligent control and optimization technology and software system for steelmaking and secondary refining;
- (5) Simulation and models for steelmaking, refining, inclusion controlling;
- (6) Equipment and technology upgrading on steelmaking and secondary refining;

- (7) New concept, technology and theoretical research on inclusion detection and controlling;
- (8) Basic research and optimization of refining slag;
- (9) New refining technologies such as electromagnetic, electrochemical, and bubble flotation;
- (10) Research and application of pure alloy and high quality refractory;
- (11) Refining technology and quality control of ultra clean steel;
- (12) New technology of low carbon steelmaking and refining;
- (13) Comprehensive utilization of resources, energy conservation and emission reduction in the field of steelmaking and secondary refining;
- (14) Refinement, homogenization, modification and utilization of inclusions in steel.

As the conference emphasizes the exchange of ideas and cross-fertilization among participants, it is encouraged not only to present a completed work, but also to bring up ideas which are not proved, but challenging, ongoing works which seek a peer advice, and technical or theoretical difficulties encountered during a particular research in progress.

WEBSITE OF CONFERENCE

sric2023.ustb.edu.cn

sric2023.scimeeting.cn/en/web/index/16888

VENUE and ACCOMMODATION

Yunnan Lianyun Hotel (连云宾馆)

- Address : No.58, Yuantong Street, Wuhua District, Kunming City, Yunnan Province, China
- Tel : 86-0871-65156661
- <http://www.ynlybg.cn/>

For the convenience of communication, the conference organizing committee has reserved sufficient rooms for the attending representatives at discounted prices, and they do not need to book any more rooms on their own.

The Prices for different hotel rooms(RMB)

Business Standard Room	340
Business Single Room	340
Business Standard Room	400
Business Single Room	400
Administrative Standard Room	500
Administrative Single Room	500
Suite	900
Executive Suite	1300



Transportation from/to Kunming International Airport

Taxi

There are taxi stands at Kunming International Airport.

It will cost approximately 55 RMB from airport to Yunnan Lianyun Hotel by a taxi (about 40 minutes)

CONFERENCE SCHEDULE AND KEY DATES

- **Wednesday, August 23, 2023**

Registration will begin at Hotel from 9:00 to 22:00

Buffet will be served from 18:00-20:00

- **Thursday, August 24, 2023**

The conference runs from 8:00 to 18:00

The conference dinner will start at the hotel from 18:30

- **Friday, August 25, 2023**

The conference runs from 8:00 to 18:00

- **Saturday, August 25, 2023**

Post conference tour for international attendees (Detailed information is attached.)

- **Key Dates**

Registration: 30 June 2017

Attendance form should be sent to Prof. Jianhua Liu, University of Science and Technology
Beijing, China

E-mail address ; liujianhua@metall.ustb.edu.cn

PRESENTATION

- Plenary lecture: 25 minutes
- Keynote lecture: 20 minutes
- Contributed paper: 15 minutes
- PPT scale: 16:9

FEES AND EXPENSES

- Accommodation Fee: **KRW 80,000 per night (VAT included) for Deluxe room in HOTEL NANTA, which shall be paid by attendants**
- Registration Fees: **RMB 1,980 for a regular participant (accompanying person: RMB 600) and RMB 980 for a student participant.**
- Payment methods: CASH (RMB) or CREDIT CARD at symposium site
- The registration fee for the participants includes: symposium proceeding, meals, coffee during formal sessions
- Post conference tour: Only for international attendees, RMB 900, **which shall be paid by attendees**

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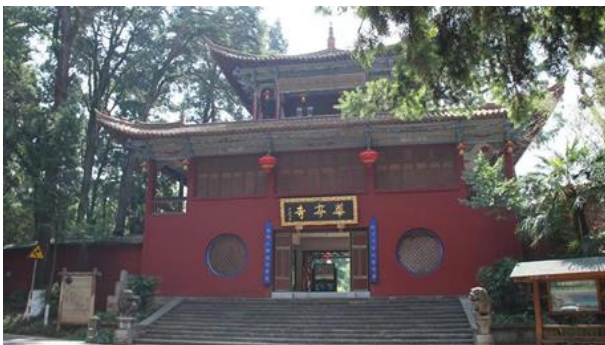
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POST SYMPOSIUM TOUR

- A Course: Huating Temple- Xishan- Dianchi Lake- Stone Forest

Huating Temple, the famous Buddhist temple in Kunming, which is the largest Buddhist holy land in Kunming.

Kunming Stone Forest Scenic Spot has been rated as "World Geopark" and "World Natural Heritage Scenery" by the United Nations Culture and Education Science and Technology. In 1982, it was approved by the State Council to become one of the first batch of national key scenic spots, and is a national 5A level tourist attraction and a national civilized scenic tourist area. This stone forest scenic spot is a typical Karst Plateau landform. There are various landforms here, including stone forest, stone peak and stone bud, as well as karst bucket and water hole, underground river and various lakes. It has undergone over 200 million years of geological changes, volcanic eruptions, and riverbed pressure to form the landscape we see today. Its complex formation process and evolution history are difficult to compare with other scenic spots, and it is precisely this perfect evolution that has given this scenic area unparalleled natural beauty today.



< Huating Temple >



< Xishan >



< Dianchi Lake >



< Wild mushroom lunch >



< Stone Forest >



< Crossing the bridge noodle dinner >

Tentative Schedule of the 2023 International Conference on Secondary Refining and Inclusion Controlling

Date	Time	Events
23-Aug Wed.	9:00-22:00	Registration
	18:00-22:00	Buffet
24-Aug Thu.	8:00	Welcome address
	8:10	Investigation on Large-Sized Non-Metallic Inclusions in Ultra-Low Oxygen Special Steels / Xinhua Wang
	8:35	Micro-alloying Theory and Its Recent Advances Based on Oxide Metallurgy / Liguang Zhu
	9:00	Fundamentals and Industrial Practices for the Control of Non-metallic Inclusions in Steels / Lifeng Zhang
	9:25	Development and application of one-key refining technology for Baosteel's precision RH / Zhigang Ma
	9:50	Coffee break
	10:10	Evolution and Control of Non-metallic Inclusions in Steel During Secondary Refining Process / Miaoyong Zhu
	10:35	Performance evaluation and application of refractories applied in clean steels / Xinmei Hou
	10:50	The recent development of Shougang electrical steel in steelmaking process / Jian Gong
	11:15	Functional reconstruction of active components of steel slag / Jinshu Wang
	12:00	Lunch
	13:30	Application of Thermodynamic database to the steelmaking process simulations / In-Ho Jung
	13:55	TPO – An Enabler for better Quality and Higher Performance / Yuyou Zhai
	14:20	Last line of defense for inclusion control and cleaner steel based on fundamentals of chemical metallurgy / Il Sohn
	14:45	Gas atomization of low-density Fe-Cr-Ni-Mn-Al Stainless Steels / Olena Volkova
	15:10	Understanding Behavior of Ti in Ultra-Low C Liquid Steel / Youn-Bae Kang
15:35	Coffee break	
15:55	Design of mold flux for advanced high strength steels based on mixed alkali effects / Jungwook Cho	

	16:20	Understanding nonmetallic inclusion behavior in SEN clogging – a modelling approach / Menghai Wu
	16:45	Development of ladle furnace automation system / Hyoungkeun Choi
	17:10	To be determined / Gupta
	17:35	High temperature physical chemistry of secondary refining slags for producing clean steels / Joohyun Park
25-Aug Fri.	8:00	Comprehensive study for elucidation and control of non-metallic inclusions and steel microstructure through secondary refining, casting, and mechanical processing / Hiroyuki Matsuura
	8:25	Microstructure optimization and strengthening and toughening mechanism of rare earth Ce/La on weld metal of ultra-low temperature high manganese steel / Guangqiang Li
	8:55	Advanced steelmaking technology based on clean deoxidation methods / Yanping Bao
	9:20	The H Effect Behavior in C56E2 Bearing Steel and Its Removal in Steelmaking / Jigang Liu
	9:45	Coffee break
	10:05	Inclusion Precipitation Behavior and Mechanical Properties Control of Low-Density High-Strength Steel / Shengqiang Song
	10:30	Progress on Oxide Metallurgy Technology / Jian Yang
	10:55	Non-equilibrium transformation of inclusions during the refining of Al-killed clean steel / Wanlin Wang
	11:20	Control of dissolved Al and nitrogen contents in steels and development of high temperature carburization gear steels / Fuming Wang
	12:00	Lunch
	Section A	
	13:30	(KN) Thermodynamic study on the formation of some precipitations in high alloy steels / Youngjo Kang
	13:55	(KN) Removal of inclusion by fine bubbles in molten steel / Jianhua Liu
	14:20	Application of tracing techniques to determine the source of alumina inclusions in the clogging layer of Ti-stabilized ULC-steels / Kathrin Thiele
	14:35	The impact of tramp elements on the wetting behavior of non-metallic inclusions in a medium-carbon steel / Julian Cejka

	Section B	

	Section C	
