

日本鉄鋼協会主催

国際会議開催と論文募集のお知らせ

—第6回鉄鋼科学技術国際会議—

The 6th International Iron and Steel Congress (6th IISC)

本会では標記国際会議を1990年10月に名古屋市において開催することになりました。会議組織委員会（八木靖浩委員長、川崎製鉄社長、現本会会長）ではSecond Circularを発行して論文募集を行っておりますので、下記概要をご覧のうえ多数ご応募下さるようお知らせいたします。

1. テーマ内容

This International Conference will address INNOVATIVE IRONMAKING and STEELMAKING TECHNOLOGY which will be the core of the steel industry in the 21st century. Innovation will take place in both products and processes: the former related to "advanced steel", and the latter to "flexible manufacturing technology (FMT)."

"Advanced steel" implies not only quality steels with better mechanical, chemical and physical properties, but also steels attractive to customers in terms of cost performance, delivery, appearance, etc., which are more and more important to expand the future steel markets. For the production of "advanced steel", of vital importance in up-stream process technologies are how to remove impurities, how to adjust chemical compositions within a very narrow range, how to add special elements with very low solubility, how to control the morphology of microstructure and how to enhance and control the solidification rate. Rationalization in the process flow, energy consumption and material yield is also an ongoing task for cost reduction and shorter delivery time.

The BF-BOF system has been almost perfected through long experience and is best suited for mass production of normal steels, where stable operation and a rather rigid and steady-state condition are required. On the other hand, "FMT" is a new process concept exhibiting higher flexibility in choosing raw materials, energy resources, productivity, and in producing a variety of products with small lot. "FMT" will enable the steel industry to meet future versatile social demands and to cope with various change in circumstances.

On the basis of the above-mentioned ideas, papers concerning the following will be accepted:

Fundamentals

- 1) Fundamentals for Refining and Solidification Processing

Ironmaking

- 2) Future of Blast Furnace Process
- 3) Advanced Iron Ore Preparation
- 4) Development of Cokemaking

Steelmaking

- 5) Development of BOF Steelmaking
- 6) Development of Electric Furnace Steelmaking
- 7) Scrap Melting with Cost Effective Energies
- 8) Development of Continuous Casting and Ingot Casting Technologies
- 9) Electromagnetic Processing of Liquid Materials
- 10) Ultra Low Impurity Steel and Super Clean Steel

Associated Technologies

- 11) Process Control and Instrumentation of Ironmaking and Steelmaking Processes
- 12) Maintenance and Diagnosis Technologies

Others

- 13) Optimization of Steelworks, in terms of Economy, Energy, Environment, Resources, Delivery, etc. for versatile market needs

2. INVITED LECTURES

1) Opening Lectures

Y. YAGI, Kawasaki Steel Corporation, Japan

"Recent Trends and Future Tasks in Ironmaking and Steelmaking"

H. W. PAXTON, Carnegie Mellon University, USA

"Science and Technology for -the Post-2000 Iron and Steel Industry"

F. FITZGERALD, British Steel PLC, UK

"Technical Trends in Iron and Steelmaking"

Hyung-Sup CHOI, National Academy of Science, Korea

"Direction for Development of Iron and Steel Technology in the Newly Industrialized Countries"

2) Keynote Lectures (Tentative)

K. SCHWERDTFEGER, Technische Universität Clausthal, FRG

"Fundamentals for Refining and Solidification Processing" (Topic 1)

Q. HAN, Beijing University of Science and Technology, China

"Thermodynamics of Rare Earth and Alkaline Earth Elements in Molten Iron" (Topic 1)

A. POOS, Centre de Recherches Métallurgiques, Belgium

"Future of Blast Furnace Process" (Topic 2)

W-K. LU, McMaster University, Canada

"Rate Limiting Steps and Future Development in Blast Furnace Ironmaking" (Topic 2)

T. SHIBUYA, NKK Corporation, Japan

"Recent Progress of Ironmaking Technology in Japan" (Topic 2)

Y. OMORI, Tohoku University, Japan

"Advanced Iron Ore Preparation" (Topic 3)

G. NASHAN, Ruhrkohle AG., FRG

Progress in Cokemaking Technology—Advanced Standard of Cokemaking Technology today and the "New Face" of the Cokerie of Tomorrow (Topic 4)

M. TATEOKA, Nippon Steel Corporation, Japan

"Recent Trends and Future Outlook of Coke Making Technology in the Japanese Steel Industry" (Topic 4)

R. J. FRUEHAN, Carnegie Mellon University, USA

"Current Status and Future Development in Oxygen Steelmaking" (Topic 5)

T. SHIMA, Nippon Steel Corporation

"Development of BOF Steelmaking" (Topic 5)

K. ISHIHARA, Topy Industries, Ltd., Japan

"Development of Electric Arc Furnace Steelmaking in Japan" (Topic 6)

A. J. BERTHET, IRSID, France

"The 90's Electric Arc Furnace Steelmaking Route : The Leap Forward" (Topic 6)

J. K. BRIMACOMBE, The University of British Columbia, Canada

"Basic Knowledge and the Achievement of Quality in Continuous Casting" (Topic 8)

K. WÜNNENBERG, Mannesmannröhren-Werke AG, FRG

"Cating and Solidification : Recent Developments for the Attainment of Very High Quality" (Topic 8)

S. ASAI, Nagoya University, Japan

"Recent Activities and Trend of Electromagnetic Processing of Materials" (Topic 9)

M. GARNIER, GIS Madylam, France

"Basis and Applications of Electromagnetic Processing of Liquid" (Topic 9)

J. SZEKELY, Massachusetts Institute of Technology, USA

"Fluid Flow and Electromagnetic Phenomena in the Production and Processing of Super Clean Steels" (Topic 10)

A. McLEAN, University of Toronto, Canada

"Some Innovative Process Technologies for the Flexible Manufacturing of Advanced Steels" (Topic 10)

L. HOLAPPA, Helsinki University of Technology, Finland

"Clean Steel-Theoretical Considerations and Practical Approaches" (Topic 10)

I. TOYAMA, Nippon Steel Corporation, Japan

"Recent Trends of Instrumentation and Control Technology in the Japanese Steel Industry" (Topic 11)

T. TOYOTA, Nippon Steel Corporation, Japan

"New Trends in Maintenance and Diagnosis Technologies" (Topic 12)

3. 期 日 1990年10月21日~26日

4. 場 所 名古屋市 白鳥センチュリープラザ

5. 会議用語 論文発表, 討論とも英語 (通訳はつきません)
6. 論文発表の申込み方法
 - 1) アブストラクト提出締切日: 1989年10月15日
研究の目的, 方法, 結果および特徴を英文 (500語) で記述して下さい。
 - 2) アブストラクトの審査後, 採否を1990年1月15日までに連絡します。
7. その他の行事
本会議に関連して工場等見学会, Ladies Program 等が計画されますが, 詳細は1990年2月に発行予定の Third Circular で会議仮プログラムとともにご案内します。
8. 問合せ先
本件に関する問合せ, Second Circular 送付希望については下記宛ご連絡下さい。
(社)日本鉄鋼協会 業務部国際課 6th-IISC 係 (担当 佐藤, 龍)
〒100 東京都千代田区大手町 1-9-4 経団連会館 3階, 電話 03-279-6021, FAX 03-245-1355

~~~~~

6th-IISC の直前に International Conference on New Smelting Reduction and Near Net Shape Casting Technology for Steel が韓国で開催されます。本会と大韓金属学会では双方の会議に協力することとしております。会議の Call for Papers は下記のとおりです。

## Call for Papers

### International Conference on New Smelting Reduction and Near Net Shape Casting Technologies for Steel

1. Scope :  
During the last decade, strenuous efforts have been made to improve quality and to minimize the total cost of producing steel. However it is not easy to make further significant reductions in production costs with conventional steelmaking processes.  
This conference will examine two emerging technologies which will give a new impetus to these efforts.
  - (a) Smelting reduction and plasma smelting technologies for the production of iron and steel and associated products.
  - (b) Near net shape casting technologies using strip casting, thin slab casting, horizontal continuous casting, rheo / thixo casting and spray casting, through which successive rolling processes for final products may be greatly reduced.
2. Organizers : The Korean Institute of Metals, The Institute of Metals, UK
3. Date : 14-19 October, 1990
4. Venue : RIST, Pohang / Korea
5. Language : English
6. Abstracts :  
Prospective authors are invited to submit abstracts (approximately 500 words) concerning basic research, process development, production experience, plant engineering and associated technologies in English by 1 October 1989.
7. Full Paper : By 31 May 1990
8. Other events : An exhibition, a ladies programme and post-conference tours will be arranged.
9. Contact address :  
Dr. Y. K. SHIN      Tel. 0562-70-0547  
RIST                Tlx RISTROK K54494  
P. O. Box 135      Fax 0562-70-4199  
Pohang 790-600  
Republic of Korea