



123rd Committee on Heat Resisting Materials and Alloys Japan Society for the Promotion of Science (JSPS, "Gakushin")

The 1st International Conference on

Advanced High-Temperature Materials Technology for Sustainable and Reliable Power Engineering (123HiMAT-2015)



29 June – 03 July 2015 Sapporo, Japan



http://www.mkg.mtl.titech.ac.jp/123HiMAT-2015

History of JSPS 123rd Committee

The 123rd Committee on Heat Resisting Materials and Alloys was established in 1957 to promote university-industry cooperation under a program of Japan Society for the Promotion of Science (JSPS). The committee is the most authoritative and prestigious in the field of high-temperature metallic materials in Japan, and is actively working with the following four subcommittees:

- (1) Heat resisting steels
- (2) Superalloys
- (3) Advanced materials & processing
- (4) Environment-resistant characteristics

Details are available on the official website: http://www.jsps.go.jp/english/e-soc/list/123.html



Scope

Following a long tradition and history of the 123rd Committee, the 1st international conference (123HiMAT-2015) on advanced high-temperature materials for power engineering will be held in Sapporo, Japan. The conference aims to discuss and exchange views on any topics related to thermal power engineering, and welcomes scientists and engineers from all over the world especially from Southeast Asia. Another important aim of this conference is to cultivate young researchers and engineers who will lead this field in the near future. Thus, young scientists and active researchers are highly encouraged to participate.



Creep Testing Machines (Courtesy of NIMS)

Organization

International Advisory Board (tentative)

B. Gleeson	University of Pittsburgh, USA
C. Y. Jo	Korean Institute of Material Science, Korea
D. Young	University of New South Wales, Australia
E. Huron	GE Aviation, USA
F. Wang	Chinese Academy of Science, China
J. Hald	TU Denmark, Denmark
J. Shingledecker	EPRI, USA
M. Heilmaier	Karlsruhe Institute of Technology, Germany
R. Reed	University of Oxford, UK
S. Naka	ONERA, France
T. M. Pollock	University of California Santa Barbara, USA
T. U. Kern	Siemens, Germany

Organizing Committee

Tokyo Institute of Technology (The Chair of 123rd Committee)
Nippon Steel & Sumitomo Metal Corporation
National Institute for Materials Science
Daido Steel Co., Ltd
Nagoya University
National Defense Academy
Tohoku University
Tomakomai National College of Technology
Hokkaido University
Tokyo Institute of Technology
Tokyo Institute of Technology
IHI Corporation
The Japan Steel Works, Ltd.
Toshiba Corporation
Mitsubishi Hitachi Power Systems, Ltd.
Mitsubishi Heavy Industries, Ltd.

Executive Committee

Chair	M. Igarashi
Vice-chair	K. Kimura
Program	Y. Murata, K. Kurokawa, N. Miura (NDA), T. Ohmori (Tohoku University),
	S. Imano (MHPS, Ltd.), Y. Nishiyama (NSSM Corp.), M. Yaguchi (CRIEPI),
	N. Komai (MHI, Ltd.)
Finance	Y. Kondo, Y. Terada, S. Kobayashi (NIMS), D. Saito (Toshiba Corp.),
	S. Takahashi (IHI Corp.), S. Ueta (Daido Steel Co., Ltd)
Planning	K. Yoshimi, K. Kawamura, S. Hayashi (Tokyo Institute of Technology),
	K Takazawa (JSW Ltd.) T Mitsueda (HEPCO Inc.)

Financial Committee (Cooperative Members of the JSPS 123rd Committee)

Babcock-Hitachi K. K. **Central Research Institute of Electric Power Industry** Chubu Electric Power Co., Inc. Daido Steel Co., Ltd. **Ebara Corporation** Electric Power Development Co., Ltd. Fuji Electric Co., Ltd. Hitachi Metals, Ltd. Hokkaido Electric Power Co., Inc. Honda R&D Co., Ltd. Idemitsu Engineering Co., Ltd. **IHI Corporation** IHI Inspection & Instrumentation Co., Ltd. Japan Casting & Forging Corporation Japan Ultra-high Temperature Materials Research Center **JFE Steel Corporation** K&I Tubular Corporation Kansai Electric Power Co., Inc. Kawasaki Heavy Industries, Ltd. **Kiguchi Technics Inc.** Kosei Co., Ltd. Kyushu Electric Power Co., Inc. Mitsubishi Heavy Industries, Ltd. Mitsubishi Hitachi Power Systems, Ltd. Mitsui Chemicals, Inc. **MMC Superalloy Corporation** Nidak, Inc. Nihon Techno-Plus Co., Ltd. Nippon Steel & Sumikin Technology Co., Ltd. Nippon Steel & Sumitomo Metal Corporation Nippon Yakin Kogyo Co., Ltd. Nisshin Steel Co., Ltd. Pacific Special Alloy Castings Co., Ltd. Pacific Steel MFG. Co., Ltd. Sanyo Special Steel Co., Ltd. Takuma Co., Ltd. **TenarisNKKTubes** The Japan Research And Development Center For Metals The Japan Steel Works, Ltd. **Toshiba Corporation** Toshin Kogyo Co., Ltd. Vale Japan, Ltd.

The committee comprises the representative of these companies. The Chair is Dr. M. Okabe (Daido Steel Co., Ltd.) and the Vice-chair is Dr. S. Nishikiori (IHI Corporation).

Main Topics

The topics of the conference include

- 1) Alloy design
- 2) Mechanical properties
- 3) Life prediction
- 4) Microstructural characterization
- 5) Oxidation & corrosion, coatings
- 6) Processing and fabrication

in any metallic materials related to power engineering.



Steam Turbine (Courtesy of Toshiba Corporation)

Call for Abstract

The Organizing Committee invites authors to submit a one-page abstract through the conference website. Figures can be included in the abstract. The Committee will review the abstracts and notify the acceptance by November 30th, 2014. In particular, young scientists and engineers are highly encouraged to make their contributions to the conference.

Proceedings

The conference book will be published as the proceedings. Detailed instructions for the authors will be available at the conference website soon.

Conference Language

The conference language is English.

Poster Exhibition

An exhibition of posters will be run throughout the conference in the exhibition hall adjacent to the lecture halls. Coffee breaks will be held close to the poster exhibition area. Prizes for the best posters will be awarded by the Organizing Committee.



Important Date

Call for abstracts

Abstract deadline

Notification

Early bird registration

Program

April 2014

October 31st 2014

November 30th 2014

March 31st 2015

	June 29 (Mon)	June 30 (Tue)		July 1 (Wed)		July 2 (Thu)		July 3 (Fri)
		Opening Ceremony						
Morning		Keynote Lecture		Oral Presentation		Oral Presentation		
Lunch								Plant Tour
		Oral Presentation		Oral Presentation		Oral Presentation		(Optional)
Afternoon		Poster Exhibition		Poster Exhibition				
	Registration 15:00∼							
		Oral		Oral				
	Welcome	Presentation		Presentation				
Evening	Reception					Banquet		

*Please note that above schedule is subjected to change.

Poster display & exhibition

Plant Tours

Post conference tours are arranged to visit the USC power plant of Hokkaido Electric Power Co., Inc. and the Muroran Plant of The Japan Steel Works, Ltd. (JSW).



Tomatoh-Atsuma Thermal Power Station (Courtesy of Hokkaido Electric Power Co., Inc.)



ZUISEN Japanese Sword Smithy (Courtesy of The Japan Steel Works, Ltd.)

Venue

Conference Hall of Hokkaido University

The conference is held at the Conference Hall of Hokkaido University, located in the center of downtown Sapporo. (http://www.oia.hokudai.ac.jp/maps/?p=sapporo)



About Sapporo

Sapporo is the capital of Hokkaido, peaceful and wealthy land of nature, and the fifth largest city in Japan with a population of about 2 million. The city is best known as host of the 1972 Winter Olympic Games and is home to Sapporo Brewery. The name of the city stands for "dry, great river" in the language of the Ainu, the indigenous people of Hokkaido. June and July are the best season to visit.





Poplar Avenue in Hokkaido Univ.

Okurayama Jump Stadium (In winter)



Sapporo Beer Museum

Access to Venue

The Conference Hall is within a 10 minutes' walk from Sapporo Railway Station, 40 minutes from New Chitose Airport by train (JR Line). New Chitose Airport has regular direct international flights from various cities overseas.



Registration

Conference Fee

Category	Until March 31, 2015 From April 1, 2015				
Participant	JPY 60,000 JPY 70,000				
Student	JPY 20,000				
Accompanying person(s)	JPY 10,000				
Plant tour (if you attend)	JPY 5,000				
Exhibition	JPY 100,000				
Sponsorship	JPY 100,000				

Registration Fee Includes:

- Attendance to all the sessions and the exhibition.
- Abstract book.
- Proceedings. (Proceedings will be sent after the conference)
- Beverages and coffee.
- Welcome reception, lunch and conference banquet.

Method of Registration and Payment

Detailed information will be available at the conference website soon. http://www.mkg.mtl.titech.ac.jp/123HiMAT-2015

Registration Form

The registration form is available at our website.

Exhibition

Exhibition space is provided in this conference. All kind of exhibition is welcome.

Booth space: D 1.8m x W 1.8m x H 2.1m Package booth includes side and back wooden panels, company name board, 1 electrically outlet, 1 table (D 0.9m x W 1.8m) and 1 chair. *Multiple booths can be arranged.

*Note that the number of booth is limited.



14000T Free Forging Press (Courtesy of The Japan Steel Works, Ltd.)



Conference Secretariat

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Interactive Educational Seminar on High Temperature Materials

June 28-29 2015

Enyu Gakusha Community Hall at Hokkaido University

(http://www.oia.hokudai.ac.jp/dhu/page/EnyuGakusha.html)

The JSPS 123rd Committee on Heat Resisting Materials and Alloys will organize an educational seminar on high temperature materials for young scientists and engineers. The seminar will be held on Sunday and Monday, June 28 and 29, prior to the 123HiMAT-2015 meeting. The seminar site, "Enyu Gakusha", is the historical school house established in 1894 by Inazo Nitobe, the author of "*Bushido*", the code of the samurai.

The following three topics and lecturers are planned in the seminar.

- 1. High temperature alloy design (Prof. T. M. Pollock, UC Santa Barbara)
- 2. Creep mechanisms (Prof. G. Eggeler, Ruhr-Universität Bochum)
- 3. High temperature corrosion (Prof. D. Young, University of New South Wales)

The seminar will be held in an intimate atmosphere for a limited number of participants about 25. Participation fee will be 10,000 yen. The participants will be selected by the Organizing Committee with taking into account their ages, English skills and the balance in industry/ government/academia etc. The official website will be linked to the 123HiMAT-2015 website.



Prof. T. M. Pollock



Prof. G. Eggeler



Prof. D. Young

Contact

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