



THERMEC'2016

*International Conference on
PROCESSING & MANUFACTURING OF ADVANCED MATERIALS
Processing, Fabrication, Properties, Applications*

May 29 - June 3, 2016

GRAZ, AUSTRIA



© Österreich Werbung, Photographer: Popp G.

THERMEC'2016

International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS Processing, Fabrication, Properties, Applications

May 29 - June 3, 2016

Graz - AUSTRIA

THERMEC'2016 is the ninth international conference on advanced materials series built upon the proven concept and continues the tradition of its eight predecessors, Japan (1988), Australia (1997), USA (2000), Spain (2003), Vancouver, Canada (2006), Berlin, Germany (2009), Quebec City, Canada (2011) and the last in Las Vegas, USA (THERMEC'2013). This conference series provides a forum for researchers around the globe to present papers on recent advances in the overall field of science and technology of processing and manufacturing of advanced materials.

Scope

The conference will cover all aspects of processing, fabrication, structure/property evaluation and applications of both ferrous and non-ferrous materials including biomaterials and other advanced materials.

Oral and poster presentations dealing with the various conference topics listed below will be included in the conference program. In addition to the contributed papers, the conference committee will include invited papers by eminent researchers in key areas of materials science and materials processing/manufacturing. Internationally known experts from various countries will also be invited to deliver state-of-the-art plenary/keynote lectures at THERMEC'2016.

Venue

THERMEC'2016 will be held at the elegant Graz Convention Center – MESSE GRAZ. Graz is located not far from the enchanting Austrian capital Vienna and the majestic musical city of Salzburg. Graz is the 2003 European Cultural Capital, UNESCO WORLD HERITAGE SITE and one of the dynamic cities in Europe.

Please see conference website www.thermec2016.tugraz.at for details.

Abstracts online submission: Due date September 26, 2015

The instructions for the preparation of formatted abstracts are given at the conference website www.thermec2016.tugraz.at. You will be guided through the procedure step-by-step to submit your abstract on line. If you have any problem in submitting your abstract online, please contact the secretariat at thermec2016@tugraz.at.

Important Dates

September 26, 2015	Abstracts due
October 26, 2015	Notification to authors of abstract acceptance
January 26, 2016	Manuscripts due (strict due date)
January 26, 2016	Advanced registration for speakers (strict due date)
February 26, 2016	Final program on website
May 29, 2016	THERMEC'2016 in Graz

Topics & Coordinators

Al Alloys	K. Marthinsen, C. Poletti, A. Deschamps, Qing Liu, Kenji Matsuda, Hiromi Nagaumi
Mg Alloys	K. U. Kainer, N. Hort, Kwang Seon Shin, C. Ravindran, Shinji Ando
Ti Alloys/Aerospace Structural Metallic Materials	F. Montheillet, S. Van der Zwaag, Masahiko Ikeda, Rui Yang, Chong Soo Lee, P. Wanjara
LPSO Structure & its Related Materials	Yoshihito Kawamura, A. Vinogradov, Eiji Abe
Advanced Steels (HSLA/IF/TRIP/Stainless/HNS)	Setsuo Takaki, R. Petrov, J. M. Rodriguez-Ibabe, D. Ponge, Sung Joon Kim, Yun Peng, E. J. Palmiere
TMP- Microalloyed Steels	Tadashi Furuhashi, S. Godet, F. Roters, M. Militzer, J. M. Cabrera, D. Matlock
High & Ultra High Temp. Materials (Intermetallics, Superalloys, Refractory Metals)	C. Sommitsch, Haruyuki Inui, M. Heilmaier, A. Jacques, J. Merker, Tian Sugui
Advanced Materials in Biomedical & Bioengineering Applications	D. Mantovani, Mitsuo Niinomi, A. Carrado, Yasuharu Ohgoe
Biomimetic Materials, Nanostructured Biomaterials & Biological Applications	B. Nebe, M. Tatoulian, Takayoshi Nakano, R. Narayan, Chikara Ohtsuki, T. Gloriant
Engineering Technologies for Medicine	M. Richetta, A. Foitzik, E. A. Staderini
Surface Engineering/Advanced Protective Coatings (Metallic/Non-Metallic/Oxidation Resistant/Thermal Barrier/Refractory/Composites & Polymer Coatings) (Prof. J. T. M. De Hosson Symposium)	M. Jeandin, P. Mayrhofer, V. Ocelik, Masakazu Okazaki, Hideyuki Murakami, Lidong Sun
Composites (MMC, CMC/Nanocomposites/Syntactic & Foams)	R. Taillard, Gen Sasaki, Soon H. Hong, Lin Geng, Goroh Itoh, Yuyuan Zhao
Interfaces, Grain Boundaries & Structural Characterization Techniques	D. A. Molodov, Sadahiro Tsurekawa, W. Kleemann, Xiuliang Ma, Jianghua Chen
Fuel Cells & Hydrogen Storage Technologies, Batteries, Supercapacitors & Thermoelectric Materials	M. L. Di Vona, P. Knauth, Shin - ichi Orimo, M. Casciola, Y. Kojima
Additive Manufacturing	J. Y. Hascoet, J. Stampfl, C. Leyens, Leijun Li, P. Nash
Materials Under Extreme Conditions (Radiation, High Strain Rate, Temp. Pressure & Combinations)	B. Winkler, S. Vogel, Yusheng Zhao, Y. Tomota, Xun-Li Wang, Wei Liu, Li Zhang, Masashi Hasegawa
Metallic Glasses/ Bulk Metallic Amorphous Materials	Junji Saida, J. Eckert, Zhaoping Lu, Eun Soo Park
Nanomaterials for Structural & Energy Applications	C. Estournes, L. L. Shaw, Do Kyung Kim, M. Hiramatsu, Lei Lu, Kei Ameyama
Ultra Fine – Grained Materials	R. Z. Valiev, Yi Huang, Nobuhiro Tsuji, Hyoungh Seop Kim, T. G. Langdon
Smart/Intelligent Materials & Processes	Kiyoshi Mizuuchi, Yoko Yamabe-Mitani, Mikio Ito, J. Kopecek, Yudong Zhang, V. Brailovski
Neutron Scattering & X-Ray Studies of Advanced Materials	K. D. Liss, S. Harjo, R. Barabash, Kai Chen, Yandong Wang
Modelling & Simulation (Prof. W. Bleck Symposium)	E. Kozeschnik, B. Sonderegger, Rongshen Qin, R. Loge
Materials Performance (Mechanical Behaviour, Damage, Fatigue, Fracture, Environmentally Assisted Fracture, Failure Analysis)	R. Montanari, Fumiyoshi Minami, R. Srinivasan, Jun Sun, J. Sietsma, E. Hug, Xiao-Wu Li
Texture of Materials	W. Skrotzki, L. Toth, Hirofumi Inoue, S. Suwas, C. Esling, Liang Zuo, No Jin Park
Welding /Joining of Advanced Materials & FSW/P	N. Enzinger, Akio Hirose, U. Reisgen, P. Mayr, Jicai Feng, Hidetoshi Fujii, R. Shabadi

General Chairs

C. Sommitsch, Austria
P. Knauth, France
B. Mishra, USA
Mitsuo Niinomi, Japan
T. Chandra, Australia

Program Chairs

E. Kozeschnik, Austria
M. Ionescu, Australia
K. U. Kainer, Germany
C. Estournes, France
Setsuo Takaki, Japan

Program Vice-Chairs

H. Clemens, Austria
Tadashi Furuhashi, Japan
Xiaoxu Huang, PR China
R. Montanari, Italy
Kwang Seon Shin, Korea

National Committee

F. Androsch
H. Antrekowitsch
E. Arzt
A. Bismarck
B. Buchmayr
R. Ebner
N. Enzinger
W. Fragner

F. Hofer
B. Hribernik
P. Karner
S. Kleber
E. Kozeschnik
C. Lochbichler
P. Mayrhofer
C. Poletti

K. Reichmann
R. Schledjewski
R. Schnitzer
B. Sonderegger
C. Sommitsch
J. Stampfl
M. Stockinger
P. Uggowitzer

International Advisory Committee

T. Chandra, Australia
M.-N. Avettand-Fenoel, France
W. Bleck, Germany
A. J. De Ardo, USA
J.T.M. De Hosson, The Netherlands
A. Deschamps, France
M. L. Di Vona, Italy
L. Dobrzanski, Poland
M. Du Toit, Australia
J. Eckert, Germany
C. Esling, France
C. Estournes, France
Tadashi Furuhashi, Japan
S. Godet, Belgium
Akio Hirose, Japan
Soon Hyung Hong, Korea
N. Hort, Germany
Xiaoxu Huang, Denmark
Masahiko Ikeda, Japan
Akihisa Inoue, Japan
Hiroyuki Inoue, Japan
Haruyuki Inui, Japan
M. Ionescu, Australia
M. Jeandin, France
R. Kaibyshev, Russia
K. Kainer, Germany

Hidemi Kato, Japan
Yoshihito Kawamura, Japan
Hyoung Seop Kim, Korea
Sung-Joon Kim, Korea
P. Knauth, France
E. Kozeschnik, Austria
T. G. Langdon, USA
Chong Soo Lee, Korea
Dong Nyung Lee, Korea
C. Leyens, Germany
K. D. Liss, Australia
N. Llorca-Isern, Spain
R. Loge, Switzerland
Lei Lu, PR China
D. Mantovani, Canada
K. Marthinsen, Norway
Kouichi Maruyama, Japan
S. Marya, France
D. Matlock, USA
Kenji Matsuda, Japan
M. Militzer, Canada
B. Mishra, USA
Hiromi Miura, Japan
R. Montanari, Italy
F. Montheillet, France
B. Nebe, Germany

Mitsuo Niinomi, Japan
E. Palmiere, UK
Yun Peng, PR China
R. Petrov, Belgium
Cecilia Poletti, Austria
R. Ravindran, Canada
F. Rizzo, Brazil
J. Rodriguez-Ibabe, Spain
Junji Saida, Japan
Yasunori Saitome, Japan
S. C. Sharma, India
L. Shaw, USA
Kwang Seon Shin, Korea
W. Skrotzki, Germany
C. Sommitsch, Austria
R. Srinivasan, USA
R. Taillard, France
Setsuo Takaki, Japan
M. Tatoulian, France
Nobuhiro Tsuji, Japan
R. Valiev, Russia
S. Vogel, USA
P. Wanjara, Canada
B. Winkler, Germany
P. Withers, UK
Yoko Yamabe-Mitarai, Japan

Scientific Committee

Eiji Abe, Japan
Kei Ameyama, Japan
Shinji Ando, Japan
F. Appel, Germany
R. Barbosa, Brazil
M. Basista, Poland
T. Beck, Germany
L. Bichler, Canada
J.-J. Blandin, France
V. Brailovski, Canada
M. Brochu, Canada
T. Buslaps, France
J. M. Cabrera, Spain
A. Carrado, France
M. Carsi, Spain
E. Cerri, Italy
Kai Chen, PR China
S. Chevet, France
B. Clausen, USA
M. Demura, Japan
J. Dos Santos, Germany
V. Favier, France
D. Ferguson, USA
D. Firrao, Italy
Hidetoshi Fujii, Japan
Hiroshi Fukutomi, Japan
L. Geng, PR China
T. Gloriant, France
R. Guillaume, France
Stefanus Harjo, Japan
J. Y. Hascoet, France
Masashi Hasegawa, Japan
Takanori Hattori, Japan
M. Heilmaier, Germany
Mineo Hiramatsu, Japan
Hideki Hosoda, Japan
Jacob Huang, Taiwan
Yi Huang, UK
E. Hug, France
Mikio Ito, Japan
Goroh Itoh, Japan
A. Jacques, France
Jason S.C. Jang, Taiwan
Zhengyi Jiang, Australia

R. Kawalla, Germany
Megumi Kawasaki, Korea
Do Hyang Kim, Korea
W. Kleemann, Germany
C. Klinkenberg, Germany
Sengo Kobayashi, Japan
Shinji Kohara, Japan
Yoshitsugu Kojima, Japan
J. Kopecek, Czech Republic
M. Krüger, Germany
Praveen Kumar, India
P. Lejcek, Czech Republic
Leijung Li, Canada
Xiao-Wu Li, PR China
Qing Liu, PR China
Wei Liu, PR China
A. Lodini, France
Zhaoping Lu, PR China
Zong-yi Ma, PR China
Xiuling Ma, PR China
P. Mayr, Germany
J. Merker, Germany
Fumiyoshi Minami, Japan
Eri Miura-Fujiwara, Japan
Kiyoshi Mizuuchi, Japan
D. Molodov, Germany
Hideyuki Murakami, Japan
H. Nagabhushana, India
Hiromi Nagaumi, PR China
Makio Naito, Japan
Takayoshi Nakano, Japan
R. Narayan, USA
P. Nash, USA
V. Ocelik, The Netherlands
Yasuharu Ohgoe, Japan
Chikara Ohtsuki, Japan
Masakazu Okazaki, Japan
Shin-ichi Orimo, Japan
P. Paillard, France
P. Parasivamurthy, India
Eun Soo Park, Korea
No Jin Park, Korea
H. Paul, Poland
J. M. Pelletier, France

E. Pereloma, Australia
A. Perlade, France
A. Poulon, France
D. Ponge, Germany
R. Qin, UK
G. Racineux, France
J. M. Raulot, France
U. Reisgen, Germany
M. Richetta, Italy
P. Rios, Brazil
E. Rivera-Munoz, Mexico
Franz Roters, Germany
Yoshio Sakka, Japan
L. Santo, Italy
D. B. Santos, Brazil
Gen Sasaki, Japan
R. Shabadi, France
J. Sietsma, The Netherlands
M. A. J. Somers, Denmark
Natsuko Sugiura, Japan
Tian Sugui, PR China
Jun Sun, PR China
Lidong Sun, PR China
S. Suwas, India
Mayumi Suzuki, Japan
I. Tashlykova, Belarus
C. Testani, Italy
W. Tillmann, Germany
Yo Tomota, Japan
L. Toth, France
Sadahiro Tsurekawa, Japan
Rie Umetsu, Japan
K. Verbeken, Belgium
Xun Li Wang, Hong Kong
Yandong Wang, PR China
D. Wexler, Australia
J. Wongsangam, Thailand
Rui Yang, PR China
Guangyin Yuan, China
Li Zhang, PR China
Yudong Zhang, France
Yusheng Zhao, USA
Yuyuan Zhao, UK
Liang Zuo, PR China

Plenary Speakers

Prof. Harold W. Kroto, 1996 Nobel Prize in Chemistry: Florida State University, USA

Prof. Eduard Arzt, Director Leibnitz Advanced Materials Center: Saarland University, Germany

Keynote Speakers

M. N. Avettand-Fenoel, France	J. J. Jonas, Canada	C. Poletti, Austria
R. Barabash, USA	Haruyuki Inui, Japan	C. Ravindran, Canada
W. Bleck, Germany	R. Kaibyshev, Russia	U. Reisgen, Germany
A. Bismarck, Austria	Yoshihito Kawamura, Japan	A. E. Romanov, Russia
M. Casciola, Italy	Mayumi Kawasaki, Korea	J. M. Rodriguez-Ibabe, Spain
Jianghua Chen, PR China	Do Hyang Kim, Korea	S. C. Sharma, India
H. Clemens, Austria	E. Kozeschnik, Austria	L. L. Shaw, USA
A. Deschamps, France	T. G. Langdon, USA	Kwang Seon Shin, Korea
M. L. Di Vona, Italy	C. Leyens, Germany	W. Skrotzki, Germany
L. Dobrzanski, Poland	K. D. Liss, Australia	C. Sommitsch, Austria
J. Eckert, Germany	Qing Liu, PR China	B. Sonderegger, Austria
C. Estournes, France	J. Loeffler, Switzerland	Setsuo Takaki, Japan
Hiroshi Fukutomi, Japan	R. Loge, Switzerland	M. Tatoulian, France
Tadashi Furuhashi, Japan	Lei Lu, PR China	Nobuhiro Tsuji, Japan
Akio Hirose, Japan	D. Mantovani, Canada	R. Z. Valiev, Russia
R. Holmestad, Norway	B. Mishra, USA	S. Vogel, USA
Soon H. Hong, Korea	R. Montanari, Italy	S. Van der Zwaag, The Netherlands
N. Hort, Germany	F. Montheillet, France	Yoshimi Watanabe, Japan
Kenji Higashida, Japan	B. Nebe, Germany	S. Williams, UK
Masahiko Ikeda, Japan	Mitsuo Niinomi, Japan	B. Winkler, Germany
Akihisa Inoue, Japan	R. Petrov, Belgium	G. Verona Rinati, Italy
M. Jeandin, France	R. Pippan, Austria	Yoko Yamabe-Mitarai, Japan

Co-operating Organizations

- The Minerals, Metals, Materials Society (TMS), USA
- ASM International, USA
- Austrian Society for Metallurgy & Materials (ASMET), Austria
- The Iron & Steel Institute, Japan
- The Japan Institute of Light Metals, Japan
- The Society of Materials Science of Japan, Japan
- The Japan Society for Technology for Plasticity, Japan
- The Korean Institute of Metals & Materials (KIMM), Korea
- Deutsche Gesellschaft für Materialkunde (DGM), Germany
- Chinese Society for Metals (CSM), PR China
- Societe Francaise de Metallurgique et Materieaux (SF2M), France
- Associazione Italiana di Metallurgia (AIM), Italy
- Indian Institute of Metals, India
- Bond voor Materialenkennis, The Netherlands
- Associaacao Brasileira de Metallurgia e Materiais, Brazil
- The Metallurgy & Materials Society of CIM, Canada



The Minerals, Metals & Materials Society

Supporting Organizations

THERMEC'2016 is proudly associated with the following organizations:



BRITISH AIRWAYS:

British Airways is the official convention airline. It is one of the finest airlines in the world.



Social Program

Exciting spouse/accompanying program will be planned for four days at THERMEC 2016.

Graz is located on the verge of the Austrian alps and not far from famous musical city of Salzburg and enchanting capital Vienna besides breath taking countryside in lower Styria.

Some of the highlights of spouse/accompanying program will involve a visit to Vienna, castles, lakes, and an enchanting place near Graz where a world famous chocolate factory is located.

Welcome to Graz!

2003 European Cultural Capital, UNESCO World Heritage Site and an insider tip for connoisseurs – those who visit Graz love the Mediterranean flair, the world heritage of the picturesque historic quarter, spacious parks and architectural highlights. Graz is the capital to enjoy the Styrian specialties. Its world-famous wines and the dark pumpkin seed oil are the amassadors of this culinary identity. The Mediterranean flair is omnipresent: in the charming pub gardens, the quaint farmer's markets, the narrow alleys, the lively squares and the dreamy courtyards.

For further information see www.graztourismus.at.

Local Conference Organizers

Prof. C. Sommitsch
General Chair
TU Graz

christof.sommitsch@tugraz.at

Prof. E. Kozeschnik
Program Chair
TU Wien

ernst.kozeschnik@tuwien.at

Prof. H. Clemens
Program Vice Chair
Montanuniversität Leoben

helmut.clemens@unileoben.ac.at



The Minerals, Metals & Materials Society

Country Executive Representatives

Austria	Prof. C. Sommitsch TU Graz christof.sommitsch@tugraz.at	Prof. E. Kozeschnik TU Wien ernst.kozeschnik@tuwien.ac.at
Germany	Prof. K. U. Kainer GKSS Research Center karl.kainer@hzg.de	Prof. W. Skrotzki TU Dresden skrotzki@mail.zih.tu-dresden.de
France	Prof. P. Knauth Aix-Marseille Université - CNRS philippe.knauth@univ-amu.fr	Prof. F. Montheillet Ecole des Mines de Saint-Etienne montheil@emse.fr
Japan	Prof. S. Takaki Kyushu University takaki@zaiko.kyushu-u.ac.jp	Prof. M. Niinomi Tohoku University niinomi@imr.tohoku.ac.jp
Korea	Prof. Chong Soo Lee POSTECH cslee@postech.ac.kr	Prof. Kwang Seon Shin Seoul National University ks shin@snu.ac.kr
Canada/ USA	Prof. B. Mishra Worcester Polytechnic Institute bmishra@wpi.edu	Prof. T. G. Langdon University of Southern California Langdon@usc.edu
Southeast Asia/ Australia	Prof. M. Ionescu ANSTO mio@ansto.gov.au	Prof. T. Chandra University of Wollongong thermec2016@tugraz.at

Student Participation / Grants

The THERMEC'2016 committee intends to offer 30 to 40 student grants to male and female students. Conditions to apply for student grant can be obtained from Prof. T. Chandra (thermec2016@tugraz.at) only after January 7, 2016. Students applying for a grant must submit abstract and register by due date before applying for a grant.

Please note that only registered students (those who have paid THERMEC student registration fee by January 26, 2016, due date) will be considered for THERMEC student grant by the student grant chair Prof. T. Chandra.

Further Information

Contact conference secretariat about abstract submission, sponsorship, exhibition booth, conference registration, hotel accommodation, spouse program:

Conference secretariat:

Isabella Scheiber

Graz University of Technology, Institute of Materials Science & Welding
Kopernikusgasse 24, 8010 Graz, Austria

Email: thermec2016@tugraz.at

Fax: +43 (0) 316 873 7187