







PTM2022

2nd Announcement /Call for Papers

The 8th International Conference on Solid→Solid

Phase Transformations in Inorganic Materials

(Online)

June 27th - July 1st, 2022 China

Organized by



The Chinese Society for Metals (CSM)

Co-sponsored by

The Japan Institute of Metals and Materials (JIM)

Materials Australia (MA)

The Chinese Materials Research Society (C-MRS)

The Korean Institute of Metals and Materials (KIM)

The Minerals, Metals & Materials Society (TMS)



Conference Website: www.ptm2020.com



Invitation to PTM2022

Dear Colleagues,

Happy new year! I hope that you are all well at this difficult situation.

It is our pleasure to announce that the 8th International Conference on Solid \rightarrow Solid Phase Transformations in Inorganic Materials (PTM2022) will be held in China from June 27 to July 1, 2022. Unfortunately, the situation of COVID-19 is still serious around the world, and after a long discussion we expect it will be highly challenging to organize a physical PTM in 2022. Considering the safety and health of all participants, we finally decide to hold a virtual **PTM2022**.

We still welcome new abstracts and Aaronson award applications. The submitted abstracts will be kept as it is, so you do not need to resubmit it again. Plenary lectures, keynote talks, and Aaronson Award applications will be kept as confirmed. If you would like to update your papers, please feel free to contact us via email: ptm2020@csm.org.cn.

You can find updated information about PTM2022 at <u>www.ptm2020.com</u>.

We sincerely welcome you to join in PTM2022.

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Prof. Zhigang Yang Tsinghua University Chairman of Organizing Committee of PTM2022

History and Scope

The International Conference on Solid→Solid Phase Transformations in Inorganic Materials (PTM), held every 5 years, is organized in a way to maximize the interaction and discussion between researchers in the field. The 8th PTM conference will be held in China for the first time, the previous conferences being held in:

- 1981 Pittsburgh, USA
- 1987 Cambridge, United Kingdom
- 1994 Nemacolin Woodlands, USA
- 1999 Kyoto, Japan
- 2005 Phoenix, USA
- 2010 Avignon, France
- 2015- Whistler, Canada

The following broad topics will be covered by PTM2022, include but not limited to:

- Diffusional transformations including nucleation, growth, coarsening, precipitation, spinodal decomposition, interphase migration, austenite-ferrite transformation, order-disorder transformations, elasticity
- > Displacive transformations including martensitic transformations and shape memory alloys
- Advances in experimental techniques including scattering and diffraction techniques, atom probe, high-resolution electron microscopy and laser ultrasonics
- Advances in modelling and simulation including atomistic simulations, phase field and other meso-scale simulations, multi-scale modelling, fundamentals of structures, thermodynamics and diffusion
- Industrial applications including phase transformations in advanced high strength steels, thermo-mechanical processing, welding and nuclear materials
- Emerging areas including phase transformations during additive manufacturing, phase transitions in interfaces, high entropy alloys; amorphous alloys/quasicrystals, nanomaterials and materials for sustainable energy

Organizers / Committees

Organized by

The Chinese Society for Metals (CSM)

Co-sponsored by

The Japan Institute of Metals and Materials (JIM) Materials Australia (MA) The Chinese Materials Research Society (C-MRS) The Korean Institute of Metals and Materials (KIM) The Minerals, Metals & Materials Society (TMS)

Organizing Committee

Zhigang Yang (Chair), Professor of Tsinghua University

Hao Chen, Associate Professor of Tsinghua University

Chengjia Shang, Professor of University of Science & Technology Beijing

Qing Song (Secretary General), Professor of The Chinese Society for Metals

Zhiling Tian, Professor of The Chinese Society for Metals

Xinjiang Wang, Professor of The Chinese Society for Metals

Advisor to The Organizing Committee

Yuqing Weng, Academician, The Chinese Society for Metals

International Scientific Committee

| Markus Apel | RWTH Aachen University | Germany | |
|--------------------------------|---|---------|--|
| Benoit Appolaire | University of Lorraine | France | |
| Annika Borgenstam | The Royal Institute of Technology | Sweden | |
| Francisca G. | Spanish National Center for Metallurgical | Spain | |
| CaballeroResearch (CENIM-CSIC) | | Spain | |
| Long-Qing Chen | Penn State University | USA | |
| Amy J. Clarke | Colorado School of Mines | | |
| Alexis Deschamps | Grenoble Institute of Technology | France | |

| Masato Enomoto | Ibaraki University Japan | | |
|---------------------------|--|------------------|--|
| Alphonse Finel | University of Paris-Saclay France | | |
| Tadashi Furuhara | Tohoku University | Japan | |
| Ernst Gamsjäger | Montanuniversitaet Leoben | Austria | |
| Baptiste Gault | Max-Planck-Institut für Eisenforschung | Germany | |
| Hélio Goldenstein | University of São Paulo | Brazil | |
| James M. Howe | University of Virginia | USA | |
| Mingxin Huang | The University of Hong Kong | Hong Kong, China | |
| Christopher Hutchinson | Monash University Austraila | | |
| Pascal Jacques | Université catholique de Louvain | Belgium | |
| Xuejun Jin | Shanghai Jiao Tong Unversity China | | |
| Ernst Kozeschnik | Technische Universität Wien | Austria | |
| Vaniun Li | Norwegian University of Science and | | |
| | Technology | Norway | |
| Feng Liu | Northwestern Polytechnical University | China | |
| Yongchang Liu | Tianjin University | China | |
| Lei Lu | Shenyang National Laboratory for Materials Science | | |
| Haiwen Luo | University of Science and Technology Beijing | China | |
| Emmanuelle Marquis | University of Michigan | USA | |
| | Norwegian University of Science and | Norway | |
| | Technology | | |
| Matthias Militzer | The University of British Columbia | Canada | |
| Goro Miyamoto | Tohoku University | Japan | |
| Tetsuo Mohri | Tohoku University | Japan | |
| Jianfeng Nie | Monash University | Australia | |
| Michel Perez | Institut National des Sciences Appliquées de Lyon | France | |

| Eugen Rabkin | Technion-Israel Institute of Technology | Israel |
|----------------------|--|---------------|
| Michel Rappaz | Ecole Polytechnique Fédérale de LaUSAnne | Switzerland |
| Jose M. | University of Navarra | Spain |
| Rodriguez-Ibabe | , | - [|
| Chadwick W. Sinclair | The University of British Columbia | Canada |
| Ingo Steinbach | Ruhr-University Bochum | Germany |
| Peter W. Voorhees | Northwestern University | USA |
| Yunzhi Wang | The Ohio State University | USA |
| Wei XU | Northeastern University | China |
| Jer-Ren Yang | National Taiwan University | Taiwan, China |
| Wenzheng Zhang | Tsinghua University | China |
| Hatem S. Zurob | McMaster University | Canada |

Plenary Speakers

1. Tadashi Furuhara - Tohoku University, Japan (Hillert-Cahn Lecturer)



Presentation Title: Interface in solid-solid transformation - interplay of kinetics and crystallography

Tadashi Furuhara is a Professor and a Deputy Director of the Institute for Materials Research (IMR), Tohoku University, Japan. He obtained Bachelor and Master degrees at Kyoto University, Japan and a PhD at Carnegie Mellon University, U.S.A. Immediately after graduation, he joined the faculty of engineering, Kyoto University in 1989 and made research and education as an assistant and associate professor. Then he became a professor at Tohoku University in 2005.

His research activity covers a broad area in physical metallurgy of steels and non-ferrous alloys, such as phase transformations and precipitation, deformation and recrystallization, microstructure control by thermo-mechanical and thermo-chemical processing. Particularly, crystallography and interfacial phenomena in solid-solid phase transformation and their relation to nucleation and growth kinetics are main subjects of interest throughout his entire career.

He also actively contributes to various academic societies in metallurgy field, the Japan Institute of Metals and Materials (JIM), the Iron and Steel Institute of Japan (ISIJ), the Japan Society for Heat Treatment (JSHT), the Minerals, Metals & Materials Society (TMS) and ASM International (ASMI). He was a past vice president of JIM and currently a vice president of ISIJ. He is also an editor of Acta and Scripta Materialia.

2. Long-Qing Chen - The Pennsylvania State University, USA



Chen is Hamer Professor of Materials Science and Engineering, Professor of Engineering Science and Mechanics, and Professor of Mathematics at Penn State and the Editor-in-Chief for npj Computational Materials by Springer-Nature. He received his Ph.D. from MIT in Materials Science and Engineering in 1990 and joined the faculty at Penn State in 1992. He has published over 600 papers (with > 40,000 total citations and H-index of 95 according to the Google Scholars) in the area of computational phase transformations and microstructure evolution and multiscale modeling of structural metallic alloys, functional oxide thin films, and energy materials and is a Clarivate Analytics Highly Cited Researcher. He received the 2014 MRS Materials Theory Award, a Guggenheim Fellowship in 2005, a Humboldt Research Prize in 2017, 2011 The Minerals, Metals and Materials Society (TMS) EMPMD Distinguished Scientist Award, 2008 ASM International Silver Medal, and the 2015 Lee Hsun Lecture Award by the Shenyang Institute for Metals of the Chinese Academy of Sciences. He is a Fellow and Life Member of TMS and a Fellow of the Materials Research Society (MRS), American Physical Society (APS), American Association for the Advancement of Sciences (AAAS), American Ceramic Society (ACerS), and ASM International (ASM).

3. Alexis Deschamps - Univ. Grenoble Alpes, France



Presentation Title: Kinetics of phase transformations: what do we learn from in-situ studies?

Alexis Deschamps did his undergraduate studies at Ecole Centrale de Paris in France, followed by a Master degree at McMaster University in Canada and a PhD at Grenoble Institute of Technology, France. After a post-doctoral stay at UBC, Vancouver, Canada, he has held an academic position at the

Grenoble Institute of Technology since 1998, with research stays at Monash University, UBC and NTNU. His main research focus is on the experimental determination of the kinetics of phase transformations, mainly in aluminum alloys and in steels, using the combination of large scale facilities, electron microscopy and atom probe tomography. His broader research area deals with the link between the obtained microstructures and various properties, including strength, strain hardening, fracture and corrosion.

4. Jeffrey Hoyt - McMaster University, Canada



Presentation Title: Phase transformations and molecular dynamics simulations

In 1986, Jeff Hoyt received his PhD in Physical Metallurgy from the University of California, Berkeley. From 1988-1996, he was a faculty member in the Department of Mechanical and Materials Engineering at Washington State University. For the next ten years Dr. Hoyt was a member of the technical staff at the Sandia National Laboratories at both the Livermore, CA and Albuquerque, NM sites. In 2007 Dr. Hoyt returned to academia and joined the faculty at McMaster University in the Department of Materials science and Engineering. After serving as Department chair for five years, Prof. Hoyt semi-retired in 2016. Prof. Hoyt's research interest is all aspects of phase transformations, as well as computational techniques such as molecular dynamics and Monte Carlo methods.

5. Christopher Hutchinson - Monash University, Austraila



Presentation Title: Chemical patterning of alloys

Christopher Hutchinson is a Professor in the Department of Materials Science and Engineering at Monash University, Melbourne, Australia. He obtained his PhD from the University of Virginia, USA, and after several post-doctoral years in Grenoble, France, joined Monash University. His research emphases the manipulation of the chemistry and processing of engineering alloys to create new alloy structures that exhibit improved combinations of mechanical properties such as strength, elongation, impact, wear

and fatigue etc. Solid-state phase transformations is a core component of his work. Approximately half of his research is conducted in collaboration with industry and half funded by fundamental research agencies such as the Australian Research Council (ARC). Professor Hutchinson was a recipient of an ARC Future Fellowship, was a Chief Investigator in the ARC Centre of Excellence for Design in Light Metals and is currently a Chief Investigator in the ARC Industry Transformation Training Centre in Alloy Innovation for Mining Efficiency. He is an Editor for Acta and Scripta Materialia.

6. Alejandro G. Marangoni - University of Guelph, Canada



Presentation Title: Engineering the nanoscale and functionality of edible fat crystal networks: from chocolate to butter

Dr. Alejandro G. Marangoni is a Professor and Tier I Canada Research Chair in Food, Health and Aging at the University of Guelph, Canada. His work concentrates on the physical properties of lipidic materials in foods, cosmetics and biolubricants. With an H-index of 70 and 18,000 citations of his work, he has published over 400 refereed research articles, 82 book chapters, 18 books, and over 40 patents. He is the recipient of many awards including the 2013 AOCS Stephen Chang award, the 2014 IFT Chang Award in Lipid Science, the 2014 AOCS Supelco/Nicholas Pelick Award, the 2015 ISF Kaufmann Medal, the 2017 AOCS Alton E. Bailey Medal, and the 2019 European Lipid Technology Award from Euro Fed Lipids. Marangoni is a fellow of the American Oil Chemists' Society, the Institute of Food Technologists and the Royal Society of Chemistry (U.K.). He is the first Editor in Chief of both Current Opinion and Current Research in Food Science, EIC of the Lipid Library (AOCS), and past EIC of Food Research International. Dr. Marangoni has trained over 100 people in his laboratory; many occupy positions of importance in the academe and industry, including 13 professors at major North Dr. Marangoni was honored as one of the 10 most influential Hispanic American universities. Canadians in 2012 and a Fellow of the Royal Society of Canada, the National Academy of Sciences, in 2018.

7. Matthias Militzer - The University of British Columbia, Canada



Presetation Title: Multi-scale modelling of phase transformations - Where do we stand?

Matthias Militzer is the ArcelorMittal Dofasco Chair in Advanced Steel Processing and the Director of the Centre for Metallurgical Process Engineering at the University of British Columbia in Vancouver. He received a Diploma in Physics from the University of Technology in Dresden, Germany in 1983 and a Ph.D. in Metal Physics from the Academy of Sciences in East Germany in 1987. He moved to Canada in 1990 where he was first a Postdoctoral Fellow at McGill University before joining the University of British Columbia in 1993. He has published more than 200 papers in refereed journals and conference proceedings. His primary field of research is modelling the microstructure evolution during thermo-mechanical processing of steels and other metals. Currently, his major research activities include multi-scale modelling of phase transformations in steels, accelerated cooling of steels and in-situ measurements of microstructures using laser ultrasonics for metallurgy. He is a Fellow of the Canadian Institute for Mining, Metallurgy and Petroleum (CIM) and received the ASM Henry Marion Howe Medal 2010 and the Canadian Metal Physics Award in 2014.

8. Wenzheng Zhang - Tsinghua University, China



Presentation Title: Role of Interfaces on the Morphology of Phase Transformation Products

Wenzheng Zhang graduated from Fuzhou University in 1978, and earned her M.D. from USTB in 1983 and Ph.D. from McMaster University in 1991. She joined Tsinghua University in 1997, and became a professor in the Department (School) of Material Science and Engineering since 1999. Her research interests focus on quantitative understanding of microstructures developed from solid-state phase transformations. She identified the general features of preferred interfaces between the precipitates and the matrix in terms of singularity and periodicity, and developed a generic approach for quantitatively interpreting the precipitation crystallography, especially with measurable Δg reciprocal vectors. She and her students have continuously made advances in the interfacial dislocation theory, for calculating the geometries of preferred interfaces and complicated dislocation structures. They also made progress on the experimental and simulation study of interface migration, and revealed the shear-coupled migration of the habit plane as the cause to the surface relief effect associated with growth of precipitates. In addition, her team has contributed both free software and database to facilitate the study of transformation crystallography. Wenzheng Zhang has authored ~130 peer-reviewed papers. She is a member of Phase Transformations Committee (TMS) and Committee of Defects in Solids (Chinese Society of Physics).

Invited Speakers

Sébastien Yves Pierre Allain Institut Jean Lamour France

Markus Apel RWTH Aachen University Germany

Benoit Appolaire University of Lorraine France

Pascal Bellon University of Illinois Urbana-Champaign USA

Annika Borgenstam KTH Royal Institute of Technology Sweden

Laure Bourgeois Monash University Australia

Yann Le Bouar Laboratoire d'Etude des Microstructures (Onera-Cnrs) France

Francisca G. Caballero Spanish National Center for Metallurgical Research (CENIM-CSIC) Spain

Jianghua Chen Hunan University China

Amy Clarke Colarado School of Mines USA

Sabine Denis University of Lorraine France

Hongbiao Dong University of Leicester United Kingdom

Alphonse Finel Laboratoire d'Etude des Microstructures (Onera-Cnrs) France

Damien Fabrègue INSA Lyon France

Ernst Gamsjäger Montanuniversitaet Leoben Austria

Hélio Goldenstein University of São Paulo Brazil

Mohamed Goune Université de Bordeaux France

Heung Nam Han Seoul National University Korea

James M. Howe University of Virginia USA

Mingxin Huang The University of Hong Kong Hong Kong, China

Tilmann Hickel Max-Planck-Institut für Eisenforschung GmbH Germany

Zengbao Jiao The Hong Kong Polytechnic University Hongkong, China

Xuejun Jin Shanghai Jiao Tong University China **Ernst Kozeschnik** Vienna University of Technology Austria

Toshiyuki Koyama Nagoya University Japan

Eric Lass NIST USA

Huijun Li University of Wollongong Australia

Tong Li Ruhr-Universität Bochum Germany

Yanjun Li Norwegian University of Science and Technology Norway

Feng Liu Northwestern Polytechnical University China

Yongchang Liu Tianjin University China

Haiwen Luo University of Science and Technology Beijing China

Jian Luo University of California, San Diego USA

Knut Marthinsen Norwegian University of Science and Technology Norway **Bonvalet Manon** KTH Royal Institute of Technology Sweden

Goro Miyamoto Tohoku University Japan

Tetsuo Mohri Tohoku University Japan

Nobuo Nakada Tokyo Institute of Technology Japan

Jianfeng Nie Monash University Australia

Jörg Neugebauer Max-Planck-Institut für Eisenforschung GmbH Germany Elena Pereloma University of Wollongong Australia

Sophie Primig UNSW Sydney Australia

Dong Qiu RMIT University Australia

Ma Qian RMIT University Australia

Eugen Rabkin Israel Institute of Technology (Technion) Israel

Pedro Eduardo Jose Rivera-Diaz-del-Castillo Lancaster University United Kingdom **Jose Rodriguez-Ibabe** CEIT Spain

Ingo Steinbach Ruhr-University Germany

Gang Sha Nanjing University of Science and Technology China

Maria J. Santofimia Delft University of Technology The Netherlands

Jilt Sietsma Delft University of Technology The Netherlands

Cemal Cem Tasan Massachusetts Institute of Technology USA **Katsuyo Thornton** University of Michigan USA

Peter W. Voorhees Northwestern University USA

Jian Wang University of Nebraska - Lincoln USA Yunzhi Wang Ohio State University USA

Chris Wolverton Northwestern University USA

Wei Xu Deakin University Australia

Wei Xu Northeastern University China

Hongliang Yi Northeastern University China

Yufeng Zheng University of Nevada, Reno USA

Xiaoqin Zeng Shanghai Jiao Tong University China

Yuhong Zhao North University of China China

Sybrand van der Zwaag Delft University of Technology The Netherlands

Schedule

| Date | Activity | | |
|--------------------|----------|-------------------|-------------------|
| | Morning | Afternoon | Evening |
| June 27, Monday | | Plenary Session | Plenary Session |
| June 28, Tuesday | | Parallel Sessions | Parallel Sessions |
| June 29, Wednesday | | Parallel Sessions | Parallel Sessions |
| June 30, Thursday | | Parallel Sessions | Parallel Sessions |
| July 1, Friday | | Parallel Sessions | |

Call for Papers

Abstract Submission

If you wish to contribute a presentation or poster for PTM2022, please submit an abstract (less than 150 words) through the conference website: www.ptm2020.com by **February 15, 2022**.

Do not hesitate to broadcast this announcement to your colleagues who may show interest in PTM2022 conference.

Extended Abstract

The extended abstracts are requested to submit through the conference website before **March 1, 2022**. All the accepted extended abstracts will be published in electronic form and will be available to download on the conference website.

Please kindly download the authors guide, sample format and copyright transfer form from the conference website (www.ptm2020.com).

Presentation

Due to the pandemic, the format of presentation for PTM2022 will be on-line presentation (zoom). More details about presentation are as follows:

| | Plenary Lecture 30 minutes (including 5 minutes for discussion) |
|--------------|---|
| Duration | Keynote Paper 25 minutes (including 5 minutes for discussion) |
| | Contributed Paper 20 minutes (including 5 minutes for discussion) |
| Format | AVI or MP4 |
| Aspect Ratio | 16:9 |
| Submission | Please kindly send a VCR file of ppt presentation with your photo |
| | to ptm2020@csm.org.cn before June 1, 2022. |

Notes:

- 1. The official conference language is English.
- 2. It is mandatory to add the audio of your talk within your PowerPoint presentation or video file.

3. Before you submit your files, please kindly check your recorded audio narration, playback the PowerPoint presentation slide show or video file to verify audio recorded successfully.

- 4. Videos and animations are supported but will be automatically started with the slide.
- 5. Please do not use any passwords or encryption for your presentation.
- 6. Please note that macros should not be used and flash-animations are not supported.

Aaronson Award / Hillert-Cahn Award

Aaronson Award

The organizing committee of PTM2022 is pleased to announce the offering of the "Aaronson Award", an award to be given every PTM conference to an outstanding graduate student or young researcher in recognition of his/her exceptional contribution to the physical metallurgy of phase transformations. The award is intended to commemorate Prof. Aaronson's passion to understand phase transformations as exemplified through his teaching, scientific research, and in particular, his support and mentoring of students and young colleagues in the field. The award is open to all current graduate students or those who have graduated less than three years prior to PTM2022 (i.e. on or after July 1, 2019). Students should indicate that they wish to apply for the award when submitting their abstract for the conference. An application will consist of a curriculum vitae and a reference letter from their immediate supervisor, including a statement that they are eligible for the award.

Applications should be sent as pdf-file to Conference Secretariat (ptm2020@csm.org.cn) before February 15, 2022.

Please refer also to the official conference website: www.ptm2020.com regarding further information. Based on these applications a short list of nominees will be selected. These nominees will be expected to present their papers orally at the conference and as a paper in the proceedings. The written papers and oral presentations will serve as an important criterion to finalize the selection of the awardee.

Hubert I. Aaronson:

Prof. Hubert I. Aaronson, simply known as Hub to his friends and colleagues, was a founding member of the PTM conference series. He received his BS, MS, and Ph.D. in metallurgical engineering from Carnegie Institute of Technology (now Carnegie Mellon University). Hub greatly influenced the field of solid-solid phase transformations through his publication of more than 300 scientific papers, teaching and support of young colleagues, and in organizing highly focused conferences on key topics important to the development of the field. He was particularly well known for his major contributions to the subjects of diffusional nucleation and growth, and the mechanisms of phase transformations. Hub was recognized with many awards, and was a member of the U.S. National Academy of Engineering; a fellow of The Minerals, Metals and Materials Society, and ASM International; and an honorary member of the Japan Institute of Metals. Hub's passion to understand phase transformations, his impressive knowledge of the literature, his excellent experimental technique, and the high standards he set for himself and others in every aspect of scientific research, were an inspiration to his students and colleagues. As R.F. Mehl Professor Emeritus at Carnegie Mellon University, Hub pursued his passion for phase transformations until his passing in December 2005, not long after the PTM2005 conference. The PTM conference series will honor Hub's many contributions to solid-solid phase transformations, and in particular to his support of students and young colleagues in the field, by offering the "Aaronson Award", an award to be given every PTM conference to an outstanding graduate student or young researcher in recognition of his/her exceptional contribution to the physical metallurgy of phase transformations.

Hillert-Cahn Award

The Hillert-Cahn lectureship was instituted in 2010 in recognition of the outstanding contributions of John Cahn and Mats Hillert to the science of phase transformations in solid materials. It is awarded to a leading practitioner of the discipline at each PTM conference on recommendation of the organizing committee, and in consultation with Mats Hillert and former recipients.

Comment on the contributions of Mats Hillert and John Cahn:

Mats Hillert and John Cahn first made their presence widely felt in the 1950's with seminal publications: a wide-ranging contribution on the effects of interface curvature on phase transformations by Mats [1]; and a series of highly original papers by John with John Hilliard on the free energy of non-uniform solutions [2,3,4]. These and their many subsequent contributions played a major role in shaping the discipline. They each possess great breadth of interest and depth of insight; in addition to hosts of other honors, each has had a volume published of his selected works [5,6]. Without the contributions of Mats Hillert and John Cahn, the science of phase transformations would be a quite different and significantly diminished discipline.

- 1. Mats Hillert, Jernkont. Ann., vol. 141, 1957, p. 11.
- 2. J. W. Cahn, J. E. Hilliard, J. Chem. Phys., vol. 28, 1958, p. 258.
- 3. J. W. Cahn, J. Chem. Phys., vol. 30, 1959, p. 1121.

- 4. J. W. Cahn, J. E. Hilliard, J. Chem. Phys., vol. 31, 1959, p. 688.
- 5. "The selected works of John. W. Cahn", eds. W. Craig Carter, William C. Johnson, TMS, Warrendale, PA, 1998.
- "Thermodynamics and phase transformations: the selected works of Mats Hillert", eds. John Ågren, Yves Bréchet, Christopher Hutchinson, Jean Philibert, Gary Purdy, EDP publishers, France. 2006.

Previous Recipients:

2010 - Gary R. Purdy, McMaster University, Canada 2015 - Peter Voorhees, Northwestern University, USA

Registration

Registration

Registration Deadline for Authors

May 1, 2022

Fees

Authors

☆ CNY2000 (Regular)

☆ CNY 1000 (Student)

Participants

| Online Participation | Registration Fee |
|----------------------|------------------|
| Regular Participants | CNY 2000 |
| Student Participants | CNY 1000 |

*Note: Students are requested to submit the copy of their student ID

Method of Payment

1. Online Payment

Through the conference online payment , all payments could be made in CNY by credit card.

2. Bank Transfer

Please transfer the registration fee to the following bank account, and specify with "PTM2022, Registration No.". A copy of remittance certificate is requested to send to the conference secretariat or submit to the conference website.

| Name of Bank | INDUSTRIAL AND COMMERCIAL BANK OF CHINA | |
|--------------|---|--|
| | BEIJING NATIONAL CULTURAL AND FINANCIAL | |
| | COOPERATION DEMONSTRATION ZONE JINJIE | |

| | SUB-BRANCH |
|--------------------------------|--|
| Beneficiary and Account Holder | The Chinese Society for Metals |
| Address | NO.237 WANG FU JING STREET, DONG CHENG |
| | DISTRICT, BEIJING 100006 P.R.CHINA |
| SWIFT ADDRESS | ICBKCNBJBJM |
| Account Number | 020000709089116848 |

*Notes: 1) The Check will not be accepted

2) The registration fee doesn't include the bank charge.

3) The receipt will be provided at the registration desk during the conference.

Cancellation

Refunds cannot be given if cancellations received after **June 10, 2022**. Substitutions can be accepted at any time.

Please indicate the bank, branch and account number clearly to which the refund should be sent,

and the refund will be made after the conference.

| Cancellation | Refund |
|----------------------|---|
| Before June 10, 2022 | 80% |
| After June 10, 2022 | No refund (Conference proceedings will be sent to the |
| | authors after the conference) |

Important Dates

- > Abstract Submission Deadline: Tuesday, February 15, 2022
- > Aaronson Award Application Deadline: Tuesday, February 15, 2022
- Extended Abstract Submission Deadline: Tuesday, March 1, 2022
- > Author's Registration Deadline: Sunday, May 1, 2022
- > Deadline for Submitting a VCR file of PPT Presentation: Wednesday, June 1, 2022
- > Deadline for Conference Registration Cancellations: Friday, June 10, 2022
- Conference: June 27-July 1, 2022

Contact (about the conference)

Mr. Xin Zhao, Ms. Fang Liu The Chinese Society for Metals 76 Xueyuan Nanlu, Beijing 100081, China Phone: + 86 10 6521 1205 Fax: + 86 10 6512 4122 Email: ptm2020@csm.org.cn Website: www.ptm2020.com