September 26 – 30, 2022, Online, JAPAN

Hosted by Japan Society of Thermophysical Properties

ATPC2022 Confit zoom

Summary



























September 26 – 30, 2022, Online, JAPAN

Hosted by Japan Society of Thermophysical Properties

ATPC2022 Fact Data

Participant:

Presentation:

Key talk:

Session:

Award:

353

$$184 + 29$$
Oral/video Poster

Oral/video Poster As
$$3+16+29$$

Keynote

September 26 – 30, 2022, Online, JAPAN

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Plenary Lectures





Thermophysical properties of multicomponent liquid alloys and their measurement at elevated temperature

Dr. Jurgen Brillo DLR-senior scientist Institute of Materials Physics in Space, German Aerospace Center (DLR), Germany



Pushing Limits of Thermal Transport: from Four-Phonon Scattering to Ultrawhite Radiative Cooling Paints **Professor Xiulin Ruan**

Purdue University

University Faculty Scholar School of Mechanical Engineering Birck Nanotechnology Center, Purdue University, US



Nanomaterials for phase change heat transfer





Pushing the Limits of Thermal Transport: from Four-phonon Scattering to Ultrawhite Radiative

ATPC Significant Contribution Award

Professor Ramesh Laxminarayan Gardas Indian Institute of Technology Madras, India

RESEARCH AREAS:

Chemical Thermodynamics; Fluid Phase Equilibria; Solution Chemistry; Thermophysical Properties; Ionic Liquids; Deep Eutectic Solvents; Group Contribution methods; Structure-Property correlations.



ATPC Young Scientist Award



Dr. Aoran Fan Tsinghua University, China

RESEARCH AREAS: Thermophysical properties and micro/nano scale measurement technology



Dr. Takuma Shiga National Institute of Advanced Industrial Science and Technology, Japan

RESEARCH AREAS: Micro-nano heat transfer, phonon transport, thermoelectrics, thermal managemen

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Awardee of Student Poster Award

2P1001-29-06 Yurina Wakita Kansai University

Low-temperature operatable electric power supply for CubeSats using VO₂-based phase change material (PCM)

2P1001-29-19 Riku Shimaura Aoyama Gakuin University

Heat transport properties for amorphous and polycrystalline WO₃ films

2P1001-29-29 Ziad Maksassi Nantes Université

Thermal characterization of mussels around an umbilical cable: Application to offshore wind turbine

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Day 0 and Day 1

Sep. 26 (Mon)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
17:00-18:00	IOC meeting					

Sep. 27 (Tue)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-9:10	Opening remarks					
9:10-10:10	Plenary 1 Dr. Jürgen Brillo "Thermophysical properties of multicomponent liquid alloys and their measurement at elevated temperature"					
10:10-11:10	Plenary 2 Professor Xiulin Ruan "Ultra-efficient Radiative Cooling Paints: Materials, Energy Savings, and Climate Crisis Mitigation"					
11:10-12:10	Plenary 3 Professor Koji Takahashi "Nanomaterials for phase change heat transfer"					
12:10-13:30	Lunch					
13:30-14:00	ATPC Awards ceremony					
14:00-14:30	2022 Ared Cezairliyan Best Paper Award ceremony					
14:30-15:00	Coffee break					
15:00-17:00						Poster

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Day 2

Sep. 28 (Wed)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-10:30	<u>0S4-1</u>	<u>OS2-1</u>	<u>OS3-1</u>	<u>OS1-1</u>	<u>0S12-1</u>	
	MEMS Devices for	Properties of composites,	Instrumentation and	Materials Informatics,	Properties for Materials	
	Properties Sensing	polymers, and organic	Measurement	Database and Standards	Science at High	
	(90 min)	assemblies	Techniques	(90 min)	Temperatures	
		(90 min)	(90 min)		(90 min)	
10:30-10:50			Coffee break			
	<u>OS4-2</u>	<u>OS2-2</u>	<u>OS3-2</u>	<u>OS15-1</u>	<u>OS12-2</u>	
	MEMS Devices for	Properties of composites,	Instrumentation and	Thermophysical	Properties for Materials	
10:50-12:20	Properties Sensing	polymers, and organic	Measurement	Properties and Heat	Science at High	
10:50-12:20	(100 min)	assemblies	Techniques	Transfer of Multi Phase,	Temperatures	
		(90 min)	(70 min)	Phase Change	(100 min)	
				(90 min)		
12:20-14:00			Lunch			
	OS10-1	<u>OS2-3</u>	<u>OS3-3</u>	<u>OS15-2</u>	<u>OS12-3</u>	
	Thermal Radiative	Properties of composites,	Instrumentation and	Thermophysical	Properties for Materials	
14:00-15:50	Properties	polymers, and organic	Measurement	Properties and Heat	Science at High	
14:00-15:50	(90 min)	assemblies	Techniques	Transfer of Multi Phase,	Temperatures	
		(90 min)	(100min)	Phase Change	(90 min)	
				(110 min)		
15:50-16:10	Coffee break					
	<u>OS10-2</u>	<u>OS2-4</u>	<u>OS13-1</u>	<u>OS15-3</u>	<u>OS12-4</u>	
	Thermal Radiative	Properties of composites,	Thermophysical	Thermophysical	Properties for Materials	
16:10-18:00	Properties	polymers, and organic	Properties of Solids	Properties and Heat	Science at High	
10:10-18:00	(70 min)	assemblies	(60 min)	Transfer of Multi Phase,	Temperatures	
		(80 min)		Phase Change	(90 min)	
				(110 min)		
		1945CE##III#	S. Inner	•		

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Day 3

Sep. 29 (Thu)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
	OS10-3	OS5-1	OS13-2	OS16-1	OS12-5	
9:00-10:30	Thermal Radiative	Nano/Micro-scale	Thermophysical	Thermophysical	Properties for Materials	
	Properties	Thermophysical	Properties of Solids	Properties of Space	Science at High	
	(70 min)	Properties	(60 min)	Materials	Temperatures	
		(90 min)		(90 min)	(80 min)	
10:30-10:50			Coffee break			
		OS5-2	OS6-1	OS16-2	<u>OS14-1</u>	
		Nano/Micro-scale	Properties for Energy	Thermophysical	Thermophysical	
10:50-12:20		Thermophysical	Resources	Properties of Space	Properties of Fluids	
10:50-12:20		Properties	(100 min)	Materials	(90 min)	
		(90 min)		(100 min)		
12:20-14:00			Lunch			
	<u>OS17-1</u>	<u>OS5-3</u>	<u>OS6-2</u>	<u>OS7-1</u>	<u>OS14-2</u>	
	Thermophysical	Nano/Micro-scale	Properties for Energy	Properties of Biomaterials	Thermophysical	
14:00-15:50	Properties of Working	Thermophysical	Resources	(70 min)	Properties of Fluids	
14:00-15:50	Fluids and Low GWP	Properties	(90 min)		(100 min)	
	Refrigerants	(110 min)				
	(90 min)					
15:50-16:10	Coffee break					
	<u>OS17-2</u>		<u>OS6-3</u>	<u>OS7-2</u>	<u>OS14-3</u>	
	Thermophysical		Properties for Energy	Properties of Biomaterials	Thermophysical	
16:10-18:00	Properties of Working		Resources	(60 min)	Properties of Fluids	
10.10-16.00	Fluids and Low GWP		(110 min)		(60 min)	
	Refrigerants					
	(90 min)					
		2000 - 2011121	n¥			

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Day 4

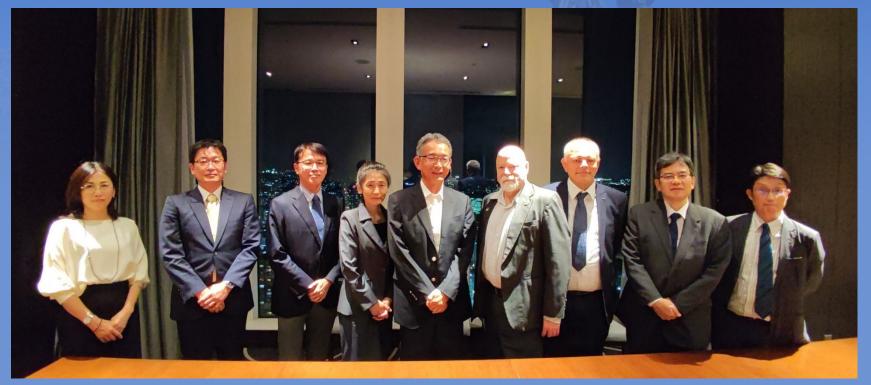
Sep. 30 (Fri)							
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P	
	<u>OS17-3</u>	<u>0S11-1</u>	<u>OS8-1</u>	<u>OS9-1</u>	<u>OS14-4</u>		
	Thermophysical	Properties of	Properties for	Thermal Design of	Thermophysical		
0.00 10.20	Properties of Working	Thermoelectric Materials	Sustainable Buildings	Electric Device	Properties of Fluids		
9:00-10:30	Fluids and Low GWP	(90 min)	and Renewable Energy	(60 min)	(80 min)		
	Refrigerants		Systems				
	(90 min)		(100 min)				
10:30-10:50	Coffee break						
	<u>OS17-4</u>	<u>0S11-2</u>	<u>0\$8-2</u>	<u>0S9-2</u>	<u>OS14-5</u>		
	Thermophysical	Properties of	Properties for	Thermal Design of	Thermophysical		
10 50 10 00	Properties of Working	Thermoelectric Materials	Sustainable Buildings	Electric Device	Properties of Fluids		
10:50-12:20	Fluids and Low GWP	(70 min)	and Renewable Energy	(60 min)	(80 min)		
	Refrigerants		Systems				
	(90 min)		(90 min)				
12:30-13:00	Closing ceremony						

Now, we're here.

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Evening with Plenary speakers and Award winners Monday Sep. 26











September 26 – 30, 2022, Online, JAPAN

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Opening

Tuesday Sep. 27





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Opening

Tuesday Sep. 27











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ATPC Awards ceremony

Tuesday Sep. 27





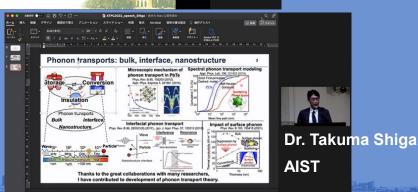


2022 Ared Cezairliyan Best Paper **Award**









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Wednesday Sep. 28

OS12 Properties for Materials Science at High Temperatures







Discussion, Discussion and Happiest Moments







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Introduction of 22nd ECTP

ECTP 22nd

2023

European Conference on Thermophysical Properties

VENICE (ITALY), 10-13 September 2023



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Introduction of 22nd STP

We cordially invite you to participate in the 22nd

Symposium on

Thermophysical Properties in

Boulder, CO, USA

June 23 – 28, 2024

Twenty-Second Symposium on Thermophysical Properties

June 23 - 28, 2024 University of Colorado, Boulder

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Introduction of ATPC2025

ATPC2025 will be held in Shanghai, China



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Special thanks to International Organizing Committee of ATPC

Yeon Suk Choi

Hiroyuki Fukuyama

Sanghyun Lee

Dong-Wook Oh

Dip Saikia

Yoshihiro Taguchi

Koji Takahashi

Naoyuki Taketoshi

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OS17

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Yukihiro Higashi (Kyushu University), Noboru Kagawa (National Defense Academy)

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Local Committee Chair: Taku Ohara (Tohoku Univ.)

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Masayoshi Adachi(Tohoku Univ.), Hiroyuki Fukuyama (Tohoku Univ.)

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Session Programing: Eita Shoji, Osamu Takeda, OS Organizers Awards: Hiroyuki Fukuyama, Masayoshi Adachi, Sakiko Kawanishi

IOC Meeting, IJT: Hiroyuki Fukuyama

Plenary, Keynote, Invited Speakers: Hiroyuki Fukuyama, Atsuki Komiya

Opening Ceremony, OS12: Hiroyuki Fukuyama, Makoto Ohtsuka, Sohei Sukenaga, Masayoshi Adachi, Sakiko Kawanishi,

Hiroyuki Shibata, Miwa Sasaki

Closing Ceremony: Hiroyuki Fukuyama, Atsuki Komiya IOC Meeting and Evening on Sep26: Hiroyuki Fukuyama

Management of Students: Masayoshi Adachi, Sohei Sukenaga

Program & Abstract book: Atsuki Komiya, Yuki Kanda (Tohoku Univ.)

Special Issues: HTHP Hidekazu Kobatake, Sohei Sukenaga, IJT: Naoya Sakoda (Kyushu Univ.), Qin-Yi Li (Kyushu Univ.)

Poster and Presentation Awards: Satoru Momoki (Nagasaki Univ.), Atsuki Komiya

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Thank you all from Sendai &

See you again in Venice (ECTP2023), Boulder (STP2024), and Shanghai (ATPC2025)!