

MHMT
CONGRESS

6TH WORLD CONGRESS ON MOMENTUM, HEAT AND MASS TRANSFER (MHMT'2021)

June 17, 2021 - June 19, 2021 | ~~LISBON, PORTUGAL~~ | Virtual Conference

THE MHMT'21 CONGRESS IS COMPOSED OF 3 CONFERENCES

ENFHT
2021

ICMFHT
2021

CSP
2021

June 17

June 18

June 19

OUR PROGRAM SCHEDULE IS BASED ON EASTERN TIME
(ET - OTTAWA TIME)

JUNE 17

10:00 AM – 12:00 PM Registrations

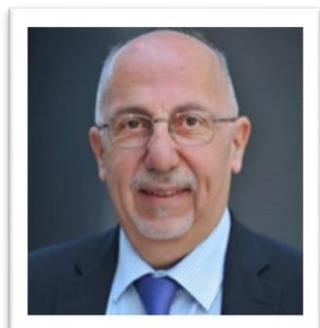
MHMT'21 Scientific Committee Chair



Dr. Lixin Cheng

Sheffield Hallam University, UK
Congress Chair

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Dr. Tassos G. Karayiannis

Brunel University London, UK
Congress Co-Chair

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JUNE 18

8:00 AM - 9:00 AM	Registrations
9:00 AM - 9:10 AM	Official Opening
	Dr. Lixin Cheng, Sheffield Hallam University, UK
9:10 AM - 9:55 AM	KEYNOTE LECTURE
	<u>Numerical Approaches to Industrial Flow Optimization</u> Dr. Harvey Thomson, Leeds University, UK
09:55 AM - 10:40 AM	KEYNOTE LECTURE
	<u>Numerical Simulations of Complex Multiphase Flows: Opportunities and Challenges</u> Dr. Gretar Tryggvason, Johns Hopkins University, USA
10:40 AM - 11:25 AM	KEYNOTE LECTURE
	<u>State-Of-The-Art Laser-Diagnostic Measurement Techniques Applied To Multiphase Flows</u> Dr. Christos Markides, Imperial College London, UK
11:25 AM - 11:35 AM	BREAK
11:35 AM - 12:50 PM	SESSION <u>CFD I</u>
12:50 PM - 1:10 PM	LUNCH BREAK

JUNE 18

1:10 PM - 1:55 PM

KEYNOTE LECTURE

Research Needs For Decarbonised Power Generation

Dr. Yannis Hardalupas, Imperial College London, UK

1:55 PM - 2:40 PM

KEYNOTE LECTURE

Research challenges for Zero Carbon and Sustainable Fuels: Prospects and the Pathway Forward

Dr. Mohamed Pourkashanian, The University of Sheffield, UK

2:40 PM - 3:15 PM

SESSION

Combustion

3:15 PM - 3:25 PM

BREAK

3:25 PM - 4:40 PM

SESSION

Multiphase Flow and Heat Transfer

KEYNOTE LECTURE

JUNE 18 | 9:10 AM - 9:55 AM | SESSION CHAIR: DR. LIXIN CHENG, SHEFFIELD HALLAM UNIVERSITY, UK



Titles: Numerical Approaches to Industrial Flow Optimization

[Dr. Harvey Thomson, Leeds University, UK](#)

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Professor Harvey Thomson (HT) FIMechE is Professor of Computational Fluid Dynamics (CFD) and Head of the School of Mechanical Engineering at the University of Leeds. He has published over 100 journal papers in the areas of CFD, Heat Transfer and Multi-disciplinary Design Optimisation (MDO) of engineering products and processes and has collaborated with leading companies in the aerospace, automotive and food sectors. His recent research in CFD-enabled flow optimisation has been focussed in electronics and machine tool cooling systems and is finding application in a range of other biological, chemical and nuclear flow processing systems.

KEYNOTE LECTURE

JUNE 18 | 9:15 AM - 10:00 AM | SESSION CHAIR: DR. LIXIN CHENG, SHEFFIELD HALLAM UNIVERSITY, UK



Titles: Numerical Simulations of Complex Multiphase Flows: Opportunities and Challenges

Dr. Gretar Tryggvason, Johns Hopkins University, USA

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Gretar Tryggvason is the Charles A. Miller, Jr. Distinguished Professor at the Johns Hopkins University and the head of the Department of Mechanical Engineering. He received his PhD from Brown University in 1985 and was on the faculty of the University of Michigan in Ann Arbor until 2000, when he moved to Worcester Polytechnic Institute as the head of the Department of Mechanical Engineering. Between 2010 and 2017, he was the Viola D. Hank professor at the University of Notre Dame and the chair of the Department of Aerospace and Mechanical Engineering.

Professor Tryggvason is well known for his contributions to computational fluid dynamics; particularly the development of methods for computations of multiphase flows and for pioneering direct numerical simulations of such flows. He served as the editor-in-chief of the Journal of Computational Physics 2002-2015, is a fellow of APS, ASME and AAAS, and the recipient of several awards, including the 2012 ASME Fluids Engineering Award and the 2019 ASTFE Award.

KEYNOTE LECTURE

JUNE 18 | 10:40 AM - 11:25 AM | SESSION CHAIR: DR. LIXIN CHENG, SHEFFIELD HALLAM UNIVERSITY, UK



Titles: State-Of-The-Art Laser-Diagnostic Measurement Techniques Applied To Multiphase Flows
Dr. Christos Markides, Imperial College London, UK

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Christos Markides is Professor of Clean Energy Technologies, Head of the Clean Energy Processes Laboratory, and leads the Experimental Multiphase Flow Laboratory, which is the largest experimental space of its kind at Imperial College London. He is also, amongst other, Editor-in-Chief of 'Applied Thermal Engineering', and a member of the UK National Heat Transfer Committee. He has published >250 journal papers and >300 conference papers on topics relating to his keynote speech. He won multiple awards including IMechE's 'Donald J. Groen' outstanding paper prize in 2016, IChemE's 'Global Award for Best Research Project' in 2018, the Engineers without Borders 'Chill Challenge' in 2020, and received Imperial College President's Award for Research Excellence in 2017.

SESSION

CFD I

JUNE 18 | 11:35 AM - 12:50 PM | SESSION CHAIR: DR. LIXIN CHENG & DR. GRETAR TRYGGVASON

Titles: Modelling Of Heat Transfer In Turbulent Bubbly Flows Using Direct Numerical Simulations

ICMFHT 105

Time: 11:35 - 11:50

Presenter: Sonolet Aymeric, Université Paris-Saclay, France

Authors: Sonolet Aymeric, Guillaume Bois, Adrien Toutant

Titles: Flow Simulation of Gas Cyclone Separator at High Reynolds Number Using the Elliptic-Relaxation Hybrid LES/RANS (ER-HRL) Model

ICMFHT 110

Time: 11:50 - 12:05

Presenter: Mohamed Aly Sayed, Paul Scherrer Institut, Switzerland

Authors: Mohamed A. Sayed, Abdel Dehbi, Bojan Niceno, Konstantin Mikityuk, Maria Krinner

Titles: Numerical Simulation of Free Convection and Surface Radiation in a Large-Scale Cavity with a Heater

ENFHT 301

Time: 12:05 - 12:20

Presenter: Igor Miroshnichenko, Tomsk State University, Russia

Authors: Igor Miroshnichenko, Mikhail Sheremet, Stepan Mikhailenko

Titles: On Drag Reduction and Heat Transfer in Turbulent Channel Flow over Circular Dimples: The Shift of the Deepest Point of Dimples

ENFHT 304

Time: 12:20 - 12:35

Presenter: Jonathan Tay, National University of Singapore, Singapore

Authors: Yong Eng, C.M.J. Tay, B.C. Khoo

Titles: Numerical Study Of The Air Injection Method Into The Flat-panel Photobioreactor

ENFHT 305

Time: 12:35 - 12:50

Authors: Mr. Miroslav Rebej
Presenter: Mr. Miroslav Rebej, Institute of Process Engineering, Technická, Czech Republic

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KEYNOTE LECTURE

JUNE 18 | 1:10 PM - 1:55 PM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS, BRUNEL UNIVERSITY LONDON, UK



Titles: Decarbonized Combustion: Research Needs for Zero Pollution

Dr. Yannis Hardalupas, Imperial College London, UK

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Dr. Yannis Hardalupas received his Mechanical Engineering degree from National Technical University of Athens, Greece, followed by a PhD at Imperial College London. He was awarded an EPSRC Advanced Research Fellowship for experimental research on combustion of liquid and solid fuels before joining the academic staff at Mechanical Engineering Department of Imperial College, where he was promoted to Professor in 2009. In 2000, he spent a year at Ricardo Consulting Engineers working on computational models for liquid atomization through a Royal Academy of Engineering industrial secondment award. His research covers combustion, heat and mass transfer, liquid atomisation and sprays and the development and application of novel optical and laser diagnostics. The latter led to patents for instruments on powder sizing, planar droplet sizing, nanoparticle sizing and novel imaging devices. His research contributed to gas- and liquid- fuelled land-based gas turbines, coal burners, aeroengines, gasoline and Diesel engines and liquid propellant rocket engines. He also researched spray drying and Cleaning-In-Place processes for the chemical and food industry and 'nanofluids' as improved coolants for fusion and fission reactors.

KEYNOTE LECTURE

JUNE 18 | 1:55 PM - 2:40 PM | SESSION CHAIR: DR. LIXIN CHENG, SHEFFIELD HALLAM UNIVERSITY, UK



Titles: Research challenges for Zero Carbon and Sustainable Fuels: Prospects and the pathway Forward
Dr. Mohamed Pourkashanian, The University of Sheffield, UK

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Professor M. Pourkashanian: is the Head of Energy Institute at the University of Sheffield. He holds a chair in Energy Engineering, is the General Secretary for the International Flame Research Foundation (IFRF) and is Managing Director of the Translational Energy Research Centre National Facilities. He has completed numerous major research projects on clean energy technology, receiving substantial grants from the EPSRC, EU, and NATO. During his career at Universities of Sheffield and Leeds Professor Pourkashanian has successfully managed over 100 research contracts and grants, with a total value well over £90 million –with active research grants for 2019 is in excess of £19M relating to clean energy projects.

His research is in the field of future clean and sustainable energy technology. He and his students have authored over 415 publications in refereed journals and conferences and have co-authored a few books on coal and biomass combustion. Professor Pourkashanian has graduated over 87 Ph.D. candidates and supervised over 40 postdoctoral scholars. He is currently supervising 28 Ph.D. graduate students and 15 research associate/fellows, Chair of International CCS Test Centre, member of Industrial Strategy Challenge Fund (ISCF): Industrial Decarbonisation Advisory Group, Fellow of the Energy Institute and Chartered Engineer.

SESSION

COMBUSTION

JUNE 18 | 2:40 PM - 3:55 PM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS & DR. YANNIS HARDALUPAS

Titles: Rate Constants of the Dimerization of PAH Molecules: A Theoretical Study

CSP 101

Time: 2:40 - 2:45

Presenter: A.S. Savchenkova, Samara National Research University, Russia

Authors: A.S. Savchenkova, A.S. Semenikhin, I.V. Chechet, M. Frenklach, A M. Mebel

Titles: Pressure Coupling Of the Spherical Linear Eddy Model to RANS-CFD for Internal-Combustion Engine Simulation

CSP 103

Time: 2:45 - 3:00

Presenter: Nidal Doubiani, Chalmers University of Technology, Sweden

Authors: Nidal Doubiani, Abhilash Menon, Alan R. Kerstein, Michael Oevermann

Titles: Numerical Simulation Study on the Effects of Diatomic Gas Addition on Soot and Its Precursors in Acetylene Premixed Flame

CSP 104

Time: 3:00 - 3:15

Presenter: Hassan Osaf Ali, Xi'an Jiaotong University, China

Authors: Hassan Osaf Ali, Muhammad Hassaan Athar, Talha Nadeem Hassan, Faheem-ul-Hasnain

SESSION

MULTIPHASE FLOW AND HEAT TRANSFER

JUNE 18 | 3:25 PM - 4:40 PM | SESSION CHAIR: DR. CHRISTOS MARKIDES

Titles: Effect Of Drag Models In Two-Phase Solid-Gas Particles Ceria-Nitrogen: A Hydrodynamic Study Of The Fluidized Bed Reactor

ICMFHT 302

Time: 3:25 - 3:40

Presenter: Priyanka Swarnkar, Indian Institute of Technology Madras, India

Authors: Priyanka Swarnkar, T. Sundararajan

Titles: Evaluation of a Phenomenological Model for diabatic CO2 Two Phase Pressure Drop with Experimental Data inside Horizontal Tubes

ICMFHT 303

Time: 3:40 - 3:55

Presenter: Lixin Cheng, Beijing University of Technology, China

Authors: Lixin Cheng, Guodong Xia

Titles: Flow Boiling In Plain and Porous Coated Microchannels

ICMFHT 102

Time: 3:55 - 4:10

Presenter: Tassos G. Karayiannis, Brunel University London, UK

Authors: Vivian Y.S. Lee, Gary Henderson, Alex Reip, Tassos G. Karayiannis

Titles: Thermo-Capillary Induced Motion in Multiphase System Using Smoothed Particles Hydrodynamics

ICMFHT 304

Time: 4:10 - 4:25

Presenter: Mostafa, Institute of Chemical Process Engineering, University of Stuttgart, Germany

Authors: Mostafa, F. Almasi, A. Hadjadj

Titles: Mathematical Model of Multiphase Flow for the Simulation based Optimization of Wetting Phenomena

ICMFHT 202

Time: 4:25 - 4:40

Presenter: Elisabeth Diehl, Technical University of Darmstadt, Germany

Authors: Elisabeth Diehl, Ulbrich Stefan

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JUNE 19

9:00 AM - 9:45 AM	KEYNOTE LECTURE
	<u>Laminar Burning Velocity Measurements Using Constant Volume Vessel Methods</u> Dr. Richard Stone, University of Oxford, UK
9:45 AM - 10:30 AM	KEYNOTE LECTURE
	<u>Impact of Various Fuels with Different Molecular Structures on Combustion Process and Soot Formation</u> Dr. Yang Wenming, National University of Singapore (NUS), Singapore
10:30 AM - 11:15 AM	KEYNOTE LECTURE
	<u>An Ultrafine Particle Number Measurement System Operating Under Wide Temperature Rang</u> Dr. Longfei Chen, Beihang University, China
11:15 AM - 11:25 AM	BREAK
11:25 AM - 12:30 PM	SESSION <u>CFD II</u>
12:30 PM - 12:50 PM	LUNCH BREAK

JUNE 19

12:50 PM - 1:35 PM

KEYNOTE LECTURE

Enhancing Heat and Mass Transfer in Adsorption Heat Pumps Using Advanced Metal Organic Framework Materials

Dr. Raya Al-Dadah, University of Birmingham, UK

1:35 PM - 3:20 PM

SESSION

EXPERIMENTAL FLUID FLOW AND HEAT TRANSFER

3:20 PM - 3:25 PM

BREAK

3:25 PM - 4:10 PM

HEAT TRANSFER APPLICATIONS

KEYNOTE LECTURE

JUNE 19 | 9:00 AM - 9:45 AM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS, BRUNEL UNIVERSITY LONDON, UK



Titles: Laminar Burning Velocity Measurements Using Constant Volume Vessel Methods
Dr. Richard Stone, University of Oxford, UK

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Prof Richard Stone is well known as the author of 'Introduction to Internal Combustion Engines' that was first published in 1985 and for which a 5th edition is now needed. His studies of combustion in spark ignition engines have led to the award of the IMechE Crompton Lanchester Medal, the Sugden Award of the British Section of the Combustion Institute on two occasions, and the 2019 SAE Myers Award.

For the last 25 years much work has been with optical access engines, and he has been a PI on 15 EPSRC funded projects: <https://gow.epsrc.ukri.org/NGBOViewPerson.aspx?PersonId=34512>. His collaboration with Jaguar Land Rover (JLR) over the last 17 years has been supported directly and with additional support from the EPSRC and InnovateUK. His interests include flow measurement, mixture preparation and particulate matter emissions. His work on laminar burning velocity measurements has been supported by the EPSRC, Shell and BP.

He was editor of the Journal of Power and Energy for 5 years and is currently an Assistant Editor. In 2020 he was elected a Fellow of the Royal Academy of Engineering.

KEYNOTE LECTURE

JUNE 19 | 9:45 AM - 10:30 AM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS, BRUNEL UNIVERSITY LONDON, UK



Titles: Impact of Various Fuels with Different Molecular Structures on Combustion Process and Soot Formation
Dr. Yang Wenming, National University of Singapore (NUS), Singapore

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Dr. Yang Wenming is currently the Dean's Chair Professor in the department of Mechanical Engineering, National University of Singapore. He is also the editor-in-chief of Energy Engineering. His research interests include: development of Lower Temperature Combustion (LTC) Technologies, fuel design and its application in internal combustion engines, combustion and emissions control of biomass boilers and coal boilers etc. He has authored/co-authored more than 340 papers in international peer-reviewed journals and conferences, of which, more than 270 papers are SCI index, and most of his papers are published in top 10% journals. His papers have been cited by more than 10900 times with a H-index of 56. He is currently the Principal Investigator or Co-PI for 14 competitive research grants funded by National Funding Agencies and Ministry of Education of Singapore, worth more than \$30 million US dollars. He has won a series of awards including the Dean's Chair professor, 4 times of scientific progress award (2nd prize) by the Ministry of Education of China and the Society of Mechanical Engineering of China; two papers was awarded the best paper by Applied Energy (Elsevier) in 2014 and 2016 respectively; He is also the regular reviewer for a lot of peer-reviewed reputable journals such as Applied Energy, Energy Conversion and Management, Fuel, Combustion and Flame, Progress in Energy and Combustion Sciences etc.

KEYNOTE LECTURE

JUNE 19 | 10:30 AM - 11:15 AM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS, BRUNEL UNIVERSITY LONDON, UK



Titles: An Ultrafine Particle Number Measurement System Operating Under Wide Temperature Rang
Dr. Longfei Chen, Beihang University, China

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Longfei Chen is Professor in the School of Energy and Power Engineering at Beihang University, China. He received his bachelor's and master's degrees in Automotive Engineering from Tsinghua University, and his Ph.D. degree in Engineering Science from the University of Oxford. He has published more than 60 refereed journal articles. He serves as the secretary general of the Aviation Internal Combustion Engine Branch of Chinese Society for Internal Combustion Engines, and the member of SAE E31 Working Group of ICAO Emission Standards Committee. He has received many awards including the National Excellent Young Scholar (2019), China Internal Combustion Engine Society Outstanding Researcher (2019), the 4th China-France team cooperation innovation award (R&D Award, 2017), Beijing Science and Technology Nova Star Award (2018), and the First Prize Paper awarded by Chinese society for IC engines (2015). His research interest lies in particle emissions, spray and combustion, ice nucleation in atmosphere, more specifically in:

1. developing the measurement system for particle emissions;
2. the heat and mass transfer in multi-phase flow;
3. condensation and icing of atmospheric particles.

SESSION

CFD II

JUNE 19 | 11:25 AM - 12:30 PM | SESSION CHAIR: DR. TASSOS G. KARAYIANNIS, BRUNEL UNIVERSITY LONDON, UK

Titles: Numerical Modelling and Analysis of a Microfluidic PCR Device
ENFHT 201

Time: 11:25 - 11:40

Presenter: Foteini Zaglavara, University of Leeds, UK

Authors: Foteini Zaglavara, Peter K. Jimack, Nikil Kapur, Osvaldo M. Querin, Harvey M. Thompson

Titles: 3D Modelling of Viscous Fingering in Coreflows, Study of The Influence of The Mesh

ICMFHT 201

Time: 11:40 - 11:55

Presenter: Andres Pinilla, University of Los Andes, Columbia

Authors: Andres Pinilla, Miguel Asuaje, Nicolas Ratkovich

Titles: Analysis Of The Effect Of Viscosity In An Electric Submersible Pump (Esp) Through A Cfd Approach

ICMFHT 203

Time: 11:55 - 12:00

Presenter: Johan Andres Garcia Meneses, Universidad de los Andes, Columbai

Authors:

Titles: Refrigerant Mass Distribution in an R600a Household Refrigerator-Freezer during Cyclic Operation

ENFHT 101

Time: 12:00 - 12:15

Presenter: Wonhee Cho, Korea University, Republic of Korea

Authors: Wonhee Cho, DongChan Lee, Dong Soo Jang, Yongchan Kim

Titles: Numerical Modelling Of a Rectangular Shell-And-Tube Heat Exchanger
ENFHT 306

Time: 12:15 - 12:30

Presenter: Marwa Ben Slimene, National Engineering School of Tunis, Tunisia

Authors: Marwa Ben Slimene, Sébastien Poncet, Jamel Bessrou1, Ftouh Kallel

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KEYNOTE LECTURE

JUNE 19 | 12:50 PM - 1:35 PM | SESSION CHAIR: DR. LIXIN CHENG, SHEFFIELD HALLAM UNIVERSITY, UK



Titles: Enhancing Heat and Mass Transfer in Adsorption Heat Pumps Using Advanced Metal Organic Framework Materials
Dr. Raya Al-Dadah, University of Birmingham, UK

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AL-DADAH, Raya (F) is a reader in sustainable energy technologies in the School of Engineering at the University of Birmingham. She was awarded BSc in Mechanical Engineering in 1985 and PhD in Electrohydrodynamic enhancement of boiling heat transfer in 1994. She took lectureship position at UoB in 1995, promoted to senior lecturer in 2014 and to a reader in 2019. She has more than 20 years research experience in the fields of heat transfer, heat powered refrigeration systems and harnessing solar energy. She is a fellow of the Institute of Refrigeration, fellow of the Institute of Mechanical Engineers and member of the Higher Education Academy (UK). She has researched and supervised research projects and published over 150 papers in reputable journals and international conferences with H index of 24.

Specific Research interests:

Heat powered adsorption technology for energy storage, cooling, heating, power generation and water desalination using advanced adsorbent materials namely Metal Organic Framework (MOF).

Harnessing solar energy: Developing efficient methods of harnessing solar energy based on concentrated Photovoltaic cells (silicon cells as well as multi-junction cells) for both electricity and heat energy production (PVT and CPVT).

Liquid Air Energy Storage: Developing efficient cold energy recovery systems for cooling, power generation and freeze water desalination.

SESSION

EXPERIMENTAL FLUID FLOW AND HEAT TRANSFER

JUNE 19 | 1:35 PM - 3:20 PM | SESSION CHAIR: DR. LIXIN CHENG

Titles: Experimental Study on Electrified Micro-Jet Instability in Electrohydrodynamic Atomization (EHDA) Cone-Jet

ICMFHT 103

Time: 1:35 - 1:50

Presenter: Zhentao Wang, Jiangsu University, Zhenjiang, Jiangsu, China

Authors: Shiqi Yang, Zhentao Wang

Titles: Experimental study on the solidification behaviors in a latent heat thermal energy storage unit with tree-shaped fins

ICMFHT 301

Time: 1:50 - 2:05

Presenter: Chengcheng Fan, Southeast University, China

Authors: Chengcheng Fan, Hao Xu, Chengbin Zhang, Zilong Deng

Titles: Puffing/Micro-explosion in Composite Droplets in Tandem: Experimental Results and Modelling

CSP 302

Time: 2:05 - 2:20

Presenter: Dmitrii Antonov, National Research Tomsk Polytechnic University, Russia

Authors: Dmitrii Antonov, Roman Fedorenko, Pavel Strizhak, Guillaume Castanet, Sergei S. Sazhin

Titles: Puffing/Micro-explosion in Composite Mono- and Multi-component Droplets: Experimental Results and Modelling

CSP 303

Time: 2:20 - 2:35

Presenter: Roman Fedorenko, National Research Tomsk Polytechnic University, Russia

Authors: Roman Fedorenko, Dmitrii Antonov, Pavel Strizhak, Elena Shchepakina, Vladimir Sobolev, Sergei S. Sazhin

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SESSION

EXPERIMENTAL FLUID FLOW AND HEAT TRANSFER

JUNE 19 | 1:35 PM - 3:20 PM | SESSION CHAIR: DR. LIXIN CHENG

Titles: Validation study of Large-Scale Simulation of CO₂ or H₂O Gasification with Mass Transfer for Metallurgical Coke

CSP 301

Time: 2:35 - 2:50

Presenter: Yui Numazawa, Tohoku University, Japan

Authors: Yui Numazawa, Yohsuke Matsushita, Hideyuki Aoki, Takahiro Shishido, Noriyuki Okuyama

Titles: Production Of Red Blood Cells Mimics In A Flow Focus Device With Rectangular Cross Section

ICMFHT 305

Time: 2:50 - 3:05

Presenter: Ms. Ana Isabel Moreira, CEFT – FEUP, Portugal

Authors: Ms. Ana Isabel Moreira, J. Carneiro, J. B. L. M. Campos, J. M. Miranda

Titles: Experimental Study on Evaporation Heat Transfer Characteristics of R32 in A Plate Heat Exchanger

ICMFHT 106

Time: 3:05 – 3:20

Presenter: Jaewan Yang, Korea University, South Korea

Authors: Jaewan Yang, DongChan Lee, Yongchan Kim

SESSION

HEAT TRANSFER APPLICATIONS

JUNE 19 | 3:25 PM - 4:10 PM | SESSION CHAIR. DR. LIXIN CHENG & DR. RAYA AL-DADAH

Titles: ANN-based Classification of Operating Data in Humid Air-Water Heat Exchangers

ENFHT 302

Time: 3:25- 3:40

Presenter: Arturo Pacheco-Vega, California State University, USA

Authors: Gabriela Avila, Arturo Pacheco-Vega

Titles: Thermal Conductivity and Viscosity of Ionanocolloids for Applications in Thermal Energy Systems

ENFHT 303

Time: 3:40 - 3:55

Presenter: Elaine Fabre, University of Lisbon, Portugal

Authors: Elaine Fabre and S M Sohel Murshed

Titles: A Study of Segregation Behaviour with Rotation Speed in a Double-Walled Rotating Drum

ICMFHT 108

Time: 3:55 - 4:10

Presenter: Shih-Hao Chou, National Central University, Taiwan

Authors: Shih-Hao Chou, Shu-San Hsiau