

# HEFAT 2019

Wicklow, Ireland

22 – 24 July 2019



Heat Transfer, Fluid Mechanics and Thermodynamics

**22/07/2019**

10:40 - 10:50

POSTER SESSION 1

THERMAL COHERENCE OF CONCAVE SPACES FORMED BY VARIOUS AIRNODES WITH COUPLING BY MEANS OF TRNSYS

Venue: Foyer

Mr Raúl Briones-Llorente, Universidad de Burgos

10:50 - 11:00

HOW TO IMPROVE A TEMPERATURE DISTRIBUTION INSIDE A HEATED BLOCK IN A TYPICAL POOL-BOILING APPARATUS

Venue: Foyer

Ing. Viktor Vajc, Czech Technical University in Prague

11:00 - 11:10

ADVANTAGE OF SOIL VOLATILE CONTAMINANTS EXTRACTION BY HOT AIR INJECTION

Venue: Foyer

Prof Abraham Dayan, Tel Aviv University

11:10 - 11:20

CHARACTERISATION AND MODELLING OF SMALL DIAMETER MESH WICK HEAT PIPES FOR LOW POWER APPLICATIONS

Venue: Foyer

Miss Alison Clarke, Trinity College Dublin

11:20 - 11:30

A SCIENTOMETRIC STUDY OF LITERATURE OF MEM/NEM FROM 1987 TO 2018

Venue: Foyer

Prof. Ming-yueh Tsay, Graduate Institute of Library, Information and Archival Studies, National Chengchi University

11:30 - 11:40	MOLECULAR SIMULATION OF BOILING PROCESS IN ULTRATHIN FILM Venue: Foyer Mr Li Ao, Kyoto university
11:40 - 11:50	THERMODYNAMIC ANALYSIS OF COMBINED CYCLE POWER PLANT Venue: Foyer Dr. Vladimir Glazar, University of Rijeka
11:50 - 12:00	FLUID MOTION AND PHASE CHANGE IN THIN GAP Venue: Foyer Prof. Mitsuhiro Matsumoto, Kyoto University
12:00 - 12:10	EXPERIMENTAL STUDIES ON SINGLE AND BLENDED AMINES FOR CO <sub>2</sub> CAPTURE IN CERAMIC HOLLOW FIBER MEMBRANE CONTACTORS Venue: Foyer Prof. Jung Hoon Park, Dongguk University
12:10 - 12:20	THE ELECTROLESS DEPOSITION OF Pd LAYERS ON STRUCTURED Al <sub>2</sub> O <sub>3</sub> HOLLOW FIBER SUBSTRATE FOR HYDROGEN SEPARATION Venue: Foyer Prof. Jung Hoon Park, Dongguk University
12:20 - 12:30	NUMERICAL SIMULATION OF CONVECTIVE AIR DRYING OF DEFORMABLE POROUS MEDIA BY PARALLEL HYBRID LATTICE BOLTZMANN AND FINITE ELEMENT METHODS Venue: Foyer Mr Xinzhu Mou, Southeast University
<b>23/07/2019</b>	
10:40 - 10:50	POSTER SESSION 2 EFFECTS OF BUILDING ORIENTATION ON THERMAL CHARACTERISTICS OF AlSi10Mg STRUCTURE MANUFACTURED BY SELECTIVE LASER MELTING Venue: Foyer Dr Moosun Kim, Korea Railroad Research Institute
10:50 - 11:00	THERMOGRAVIMETRIC ANALYSIS (TGA) STUDY OF A WOOD PELLET, A RICE HUSK PELLET, AN EMPTY FRUIT BUNCH PELLET AND PALM KERNEL SHELL Venue: Foyer Dr Sae Byul Kang, Korea Institute of Energy Research
11:00 - 11:10	AN HYBRID DESICCANT VAPOR COMPRESSION CYCLE FOR AIR-CONDITIONING SYSTEMS Venue: Foyer Prof Carlos Eduardo L Nobrega, CEFET-Rio
11:10 - 11:20	THE ENTROPY ROLE IN POWER AND REFRIGERATION CYCLES Venue: Foyer Prof Carlos Eduardo L Nobrega, CEFET-Rio
11:20 - 11:30	LOCAL VALUES OF HEAT TRANSFER COEFFICIENT AT THE BOTTOM OF AN

	<p>AGITATED VESSEL MEASURED WITH TOIRT METHOD</p> <p>Venue: Foyer</p> <p>Mr. Stanislav Solnař, Czech Technical Univesity in Prague</p>
11:30 - 11:40	<p>IMPROVEMENT OF THE ENERGY EFFICIENCY OF AIR CONDITIONING SYSTEMS IN BUILDINGDS THROUGH THE USE OF A SOLAR CHIMNEY</p> <p>Venue: Foyer</p> <p>Dr Antonio S. Káiser, Universidad Politécnica de Cartagena</p>
11:40 - 11:50	<p>TURBULENT HEAT TRANSFER IN TRANSITIONAL ANNULAR POISEUILLE FLOW</p> <p>Venue: Foyer</p> <p>Dr. Takahiro Tsukahara, Tokyo University of Science</p>
11:50 - 12:00	<p>ADSORPTION OF PHOSPHATE ON AMINE-GRAFTED AND MAGNETIZED MESOPOROUS SILICA MATERIALS</p> <p>Venue: Foyer</p> <p>Professor Hee Moon, Chonnam National University</p>
12:00 - 12:10	<p>(P, VE, T) MEASUREMENTS OF BINARY MIXTURES HFE-7100 OR HFE-7200 + 2-PROPANOL AT PRESSURES UP TO 140 MPA AND AT TEMPERATURES FROM 298.15 TO 393.15 K</p> <p>Venue: Foyer</p> <p>Dr Natalia Muñoz-Rujas, Universidad de Burgos</p>
12:10 - 12:20	<p>MELTING TEMPERATURE MEASUREMENTS OF FATTY ACID MIXTURES AS POTENTIAL BIO-BASED PHASE CHANGE MATERIALS FOR LOW TEMPERATURE ENERGY STORAGE</p> <p>Venue: Foyer</p> <p>Dr Natalia Muñoz-Rujas, Universidad de Burgos</p>
12:20 - 12:30	
<b>24/07/2019</b>	
10:40 - 10:50	<p>POSTER SESSION 3</p> <p>MOLECULAR DYNAMICS SIMULATION OF THE THERMAL TRANSPORT ON HOLEY COPPER SUBSTRATES</p> <p>Venue: Foyer</p> <p>Dr Wenfu Situ, Technical University of Denmark</p>
10:50 - 11:00	<p>CCD - THERMOREFLECTANCE - APPLICATIONS IN MICROTHERMAL CHARACTERISATION</p> <p>Venue: Foyer</p> <p>Robert Smyth, Trinity College Dublin</p>
11:00 - 11:10	<p>THERMAL MEASUREMENTS AT SOLID-LIQUID INTERFACES TRANSPORTING HIGH HEAT FLUXES USING FREQUENCY DOMAIN THERMOREFLECTANCE</p> <p>Venue: Foyer</p> <p>Mr Kenny Yu, Nokia Bell Labs/Trinity College Dublin</p>

11:10 - 11:20	REACTIVE CONVECTIVE-DISSOLUTION IN A HELE-SHAW CELL Venue: Foyer Dr Parama Ghoshal, Jadavpur University
11:20 - 11:30	DROPLET BOILING ON A SUPERHEATED LIQUID INFUSED SURFACE Venue: Foyer Mr Patrick Sullivan, Trinity College Dublin
11:30 - 11:40	SOLITARY WAVE PROPAGATING AROUND CIRCULAR STRUCTURES IN LEVEL- SET FINITE ELEMENT FRAMEWORK Venue: Foyer Prof Haegyun Lee, Dankook University
11:40 - 11:50	COORDINATION PROPERTIES OF OXYDIACETATE AND THIODIACETATE LIGANDS TOWARDS COBALT(II) AND NICKEL(II) IONS IN SOLUTIONS - EXPERIMENTAL AND THEORETICAL STUDIES Venue: Foyer Prof. Lech Chmurzyński, University of Gdańsk
11:50 - 12:00	MICROSCALE HEAT TRANSFER MODULATION FOR SERVER CPU COOLING USING MOVABLE STRUCTURES Venue: Foyer Mr Eoin Oude Essink, Trinity College Dublin
12:00 - 12:10	HYBRID ABSORPTION CYCLE FOR FLEXIBLE USE OF HEAT PUMP AND REFRIGERATION SYSTEM Venue: Foyer Dr. Sung Joo Hong, Chonbuk National University
12:10 - 12:20	