



INTERNATIONAL INSTITUTE FOR CARBON-NEUTRAL ENERGY RESEARCH

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**- THERMAL ISSUES FOR HYDROGEN AND NEW REFRIGERANTS  
FOR ENERGY SYSTEMS –  
HYDROGENIUS AND I<sup>2</sup>CNER JOINT RESEARCH SYMPOSIUM  
(I<sup>2</sup>CNER THERMAL SCIENCE AND ENGINEERING DIVISION  
& HYDROGENIUS THERMOPHYSICAL PROPERTIES TEAM)**

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**DATE: FRIDAY, FEBRUARY 3, 2017**

**TIME: 9:50 – 16:25**

**VENUE: CONFERENCE ROOM, I<sup>2</sup>CNER, KYUSHU UNIVERSITY**

| Time        | Speaker  | Affiliation            | Title  |
|-------------|--|------------------------|--|
| 9:50-10:00  | Yasuyuki Takata  | Kyushu University      | Opening remarks  |
|             | Chair: Askounis Alexandros, Kyushu University<br>Koji Takahashi, Kyushu University,<br>Kan'ei Shinzato, Kyushu University          |                        |  |
| 10:00-10:40 | Glen McHale  | Northumbria University | Capillarity, Wetting and Smart Surfaces  |
| 10:40-11:10 | Hitoshi Asano  | Kobe University        | Effect of Tube Diameter and Cross-section Configuration on Void Fraction of One-Component Vertically Upward Two-Phase Flow |
| 11:10-11:30 | Sivasankaran Harish  | Kyushu University      | Carbon Based Nano Composites for Thermal Energy Storage Applications   |
| 11:30-11:50 | Daniel Orejon  | Kyushu University      | The Role of Micropillar Density and Nano-Structure Orientation on Condensation Heat Transfer                               |
| 11:50-13:10 | <b>Lunch</b>   |                        |  |
|             | Chair: Khellil Sefiane, University of Edinburgh<br>Masamichi Kohno, Kyushu University<br>Akira Yamada, Mitsubishi Heavy Industries |                        |  |
| 13:10-13:50 | Jungho Kim   | University of Maryland | Phase Change Heat Transfer Measurements Using Temperature Sensitive Paints   |
| 13:50-14:10 | Biao Shen  | Kyushu University      | Negative-Superheat Boiling on Biphilic Surfaces  |

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|-------------|--|-------------------------------------|--|
| 14:10-14:40 | Adhika Widyaparaga   | Gadjah Mada University              | The acoustic Field Effects on Thermo-acoustic Heat Transfer within a Double Speaker Thermoacoustic Heat Pump |
| 14:40-15:00 | <b>Break</b>   |                                     |  |
|             | Chair: Yukihiro Higashi, Kyushu University<br>Takahiko Miyazaki, Kyushu University<br>Akio Miyara, Saga University |                                     |  |
| 15:00-15:40 | Gabriele Raabe   | Technische Universität Braunschweig | Molecular Simulation and its Application to HFO Working Fluids   |
| 15:40-16:00 | Kyaw Thu   | Kyushu University                   | Second Law Analysis of Adsorption Cooling Cycles   |
| 16:00-16:20 | Taichi Kuroki  | Kyushu University                   | Prediction of Temperature and Pressure of Hydrogen Passing through Filling Equipment                         |
| 16:20-16:25 | Naoya Sakoda   | Kyushu University                   | Closing Remarks  |