

3rd IIR Conference on Thermophysical Properties and Transfer Processes of Refrigerants

FINAL PROGRAM

Paper number

Keynotes

Wednesday 8:30–10:15

Predrag S. Hrnjak

Competition between Synthetic and Natural Refrigerants:
Contributions to the Art and Science of Thermal Systems

IIR-KN1

Felix Ziegler

Heat Driven Cooling Cycles: The Property and Transfer Issues

IIR-KN2

New Fluids Part I

Joint Session with 17th Symposium

Chair: M. O. McLinden

Wednesday 10:35–12:20

Alexandre J. Grebenkov, Ryan Hulse, Hang Pham, and Rajiv Singh

Physical Properties and Equation of State for Trans-1,3,3,3-Tetrafluoropropene

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Ryo Akasaka, Katsuyuki Tanaka, and Yukihiro Higashi

A Practical Equation of State for 2,3,3,3-Tetrafluoropropene (HFO-1234yf)
to Calculate Saturation Properties

Symp-876

J. Steven Brown, Claudio Zilio, and Alberto Cavallini

Estimations of the Thermodynamic and Transport Properties of R-1234yf Using a
Cubic Equation of State and Group Contribution Methods

IIR-127

*Sergiy Artemenko, Nicholas Cox, Daniel Coulborne, Yury Semenyuk,
Vitaly Zhelezny, and Victor Mazur*

Phase Equilibria in Low GWP Azeotropic Refrigerant Blends

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Evaporation

Chair: Dieter Gorenflo

Wednesday 10:35–12:20

Dong Gyu Kang, Ki-Jung Park, and Dongsoo Jung

Nucleate Boiling Heat Transfer Coefficients of Halogenated Refrigerants up to
Critical Heat Fluxes

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A.S. Pamitran, Ardiyansyah, Jong-Taek Oh, and Predrag S. Hrnjak

Flow Boiling Heat Transfer Characteristics in Horizontal Minichannels with
R-410A

IIR-105

Jin Min Cho, Jong Won Choi, Dong Ho Kim, and Min Soo Kim
An Experimental Study on the Evaporative Heat Transfer Enhancement for R410A with Pulsating Effect in Horizontal Smooth and Micro-Fin Tubes IIR-180

Kazushi Miyata, Hideo Mori, Katsumi Ohishi, and Yoshinori Hamamoto
Boiling Heat Transfer and Pressure Drop of a Refrigerant Flowing Vertically Downward in a Small Rectangular Tube IIR-135

Lubricants, Nanofluids, and CO₂ Systems

Joint Session with 17th Symposium

Chair: M. O. McLinden Wednesday 13:45–15:30

Christopher J. Seeton and Predrag S. Hrnjak
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Mark A. Kedzierski
Viscosity and Density of CuO Nanolubricant IIR-177

Sergio Bobbo, Laura Fedele, Monica Fabrizio, Simona Barison, Simone Battiston, and Cesare Pagura
Influence of Nanoparticles Dispersion in POE Oils on Lubricity and R134a Solubility IIR-176

Khalik M. Sabil, Geert-Jan Witkamp, and Cor J. Peters
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Skander Jribi, Ibrahim Ibrahim El-Sharkawy, Bidyut Bar Saha, Anutosh Chakraborty, Ken Kuwahara, and Shigeru Koyama
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Norihiro Inoue and Masao Goto
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Giovanni A. Longo
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Chair: Dariusz Butrymowicz

Wednesday 13:45–15:30

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Leonardo C. Schurt, Christian J.L. Hermes, and Alexandre Trofino Neto
Multivariable Control of Vapor Compression Refrigeration Systems.
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Joint Session with 17th Symposium

Chair: S. Outcalt

Thursday 8:30-10:15

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Chair: Alberto Cavallini

Thursday 8:30–10:15

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New Fluids Part II

Joint Session with 17th Symposium

Chair: S. Outcalt **Thursday 10:35–12:20**

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Chair: Srinivas Garimella **Thursday 10:35–12:20**

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Joint Session with 17th Symposium

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Giovanni Latini
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Chair: J. Steven Brown **Thursday 13:45–15:30**

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Joint Session with 17th Symposium

Chair: M. O. McLinden

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Tae Matsunami, Atsushi Yamaguchi, and Haruki Sato

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Noboru Kagawa, Atsushi Matsuguchi, and Koichi Watanabe

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Chair: Jocelyn Bonjour

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Koutaro Tsubaki, Yoshimi Matsuo, and Akio Miyara

Numerical Simulation of Contact Condition Effects on Heat Exchanger Performance

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Chair: Min Soo Kim

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Dariusz Butrymowicz, Kamil Smierciew, and Jaroslaw Karwacki

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Joint Session with 17th Symposium

Chair: M. O. McLinden Friday 8:30–10:15

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Thomas J. Leck
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Chair: Shigeru Koyama Friday 9:35–10:15

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