



International
Institute of
Refrigeration

INTERNATIONAL CONFERENCE
Ammonia Refrigeration Technology
May 9-11, 2013, Ohrid, Republic of Macedonia



Faculty of Mechanical
Engineering - Skopje

PROGRAMME

May 8, 2013 (Wednesday)

17:00 Registration
20:00 Welcome drink

May 9, 2013 (Thursday)

Time	Authors	Paper
10:00	Opening ceremony	
Plenary lectures, Chairman: Andy Pearson		
10:30	Andy Pearson Star Refrigeration Ltd (UK)	Making ammonia refrigeration plants safer
11:00	Rene van Gerwen Unilever Engineering Services (Netherlands)	Past, present and future of ammonia as refrigerant, from a leading industrial end-user perspective
11:30	Coffee break	
Heat pumps, Chairman: Jan Boone		
12:00	Alexander Pachai JCI - Sabroe (Denmark)	Heat pumps and their economics
12:20	Stein Nordtvedt Institute for Energy Technology (Norway)	Heat recovery in fish meal industry by high temperature hybrid heat pumps
12:40	Claus Madsen, B. Pijnenburg, R. Christensen Danish Technological Institute (Denmark)	Ammonia heat pump optimization through two condensers in series
13:00	Lunch break	
Refrigerants; Improvements of systems, Chairman: Predrag Hrnjak		
14:00	Lambert Kuijpers Technical University of Eindhoven (Netherlands)	Towards "environmentally sound" refrigeration as defined under the Montreal Protocol
14:20	Jianyi Zhang Jimei University (China)	Status and analysis of ammonia refrigeration technology for cold stores in China
14:40	Anil Gulanikar Dag-Tech Refrigeration (India)	Energy conservation in ammonia refrigeration system installed for meat processing unit in india
15:00	Russian delegation – UNIDO project (Russia)	Ammonia refrigeration in Russia
15:05	Coffee break	
Panel discussion: standards in refrigeration Panelists: Andy Pearson (chairman), Star Refrigeration, UK; Gert Koster, GEA Refrigeration, Netherlands; Alexander Pachai, JCI – Sabroe, Denmark; René van Gerwen, Unilever, Netherlands; Eric Smith, IIR, USA		
15:40	Introduction paper by: Gert Koster, GEA Refrigeration (Netherlands)	Use and misuse of standards in refrigeration
16:00 to 17:50	Discussions	

May 10, 2013 (Friday)

Time	Authors	Paper
	Plenary lectures, Chairman: Alexander Pachai	
9:00	Predrag Hrnjak University of Illinois (USA)	DX ammonia evaporators – flow regimes, charge and heat transfer
9:30	Niels Vestergaard Danfoss (Denmark)	Current and future trends in Ammonia refrigeration systems and control components
10:00	Franc Kosi University of Belgrade – FME (Serbia)	Practical experiences with ammonia refrigerating systems in the Balkan region
10:30	Coffee break	
	Innovations and improvements in ammonia systems, Chairman: Niels Vestergaard	
11:00	Jan Boone Mayekawa (Japan)	Ammonia chillers in different industrial plants in Switzerland
11:20	Sergei Khoudiachov S K Energy Consulting (Canada)	Operating ammonia refrigeration systems at peak efficiency
11:40	Atte Aarnio Vahterus Oy (Finland)	New developments on ammonia separation systems
12:00	Henry Bonar, John Nuszowski BONAR (USA)	Gaining "Lost Work" for a Greener Planet
12:20	Lunch break	
	Absorption technology, Chairman: Arnd Hilligweg	
13:20	Arnd Hilligweg Nuremberg University of Applied Sciences (Germany)	Extended operational flexibility of trigeneration systems with ammonia water absorption chillers
13:40	Rupert Graf, Jose Corrales Ciganda, Simon Funk, Annett Kühn, Felix Ziegler Technical University of Berlin (Germany)	First operation data of a gas absorption heat pump at a test bench
14:00	Jose Corrales Ciganda, Rupert Graf, Annett Kühn, Felix Ziegler Technical University of Berlin (Germany)	Optimization of a gas absorption heat pump system
14:20	Mihail-Dan Staicovici, Andrei-Marius Staicovici S.C. Varia Energia s.r.l. (Romania)	Hybrid coabsorbent heat pumping cycles

15:00 Visit the museum on water, then Excursion in the complex "Sv. Naum" (18 km far from Hotel Metropol)

20:00 Gala dinner

May 11, 2013 (Saturday)

	Various topics, Chairman: Andrew Gigiel	
9:00	Krzysztof Banasiak, Armin Hafner, Anne Karin Hemmingsen SINTEF Energi AS (Poland, Norway)	Influence of ejector performance on the overall efficiency of ammonia ejector refrigeration cycle
9:20	C. Filipoiu, A. Dobrovicescu, V. Apostol, L. Drughean University Politehnica of Bucharest (Romania)	Exergetic analysis of refrigeration cycles operating with natural refrigerants
9:40	Gratiela Tarlea Technical University of Bucharest (Romania)	Romania – Ammonia traditional user
10:00	Closing ceremony - Resume	
10:30	Informal coffee	

Accompanying Persons Programme

Presence at all social events of the conference: welcome drink, conference gala dinner, sightseeing in the old town of Ohrid.

May 9, 13:30: Excursion in the Monastery complex of Kalishta near Struga, along the lake.

May 10, 10:00: Visit at the Ohrid old bazaar with special jewels, filigree and Ohrid pearls.