

## PRELIMINARY PROGRAMME

### May 6, 2009 (Wednesday)

17:00 Registration  
20:00 Welcome drink

### May 7, 2009 (Thursday)

Time	Authors	Paper
10:00	Opening ceremony	
Plenary lectures, Chairman: Anders Lindborg		
10:30	Anders Lindborg Ammonia Partnership AB (Sweden)	Ammonia refrigeration risk assessment, probability and frequency
11:00	Gert Koster GEA Grasso International (Netherlands)	Modernization of ammonia refrigerating systems in view of reliability, safety, energy consumption and environmental issues
11:30	Lambert Kuijpers Technical University of Eindhoven (Netherlands)	2010-2020: a new decade of changes in refrigeration and air conditioning
12:00	Lunch break	
Efficient and safe use of ammonia refrigerating systems, Chairman: Ray Clarke		
13:00	Alexander Pachai Johnson Controls Denmark	Ammonia safety by design and maintenance
13:20	Klaas Visser KAV Consulting (Australia)	The separate and combined use of NH <sub>3</sub> and CO <sub>2</sub> in refrigeration systems, Part 1: Ammonia and CO <sub>2</sub> /NH <sub>3</sub> cascade systems
13:40	Klaas Visser KAV Consulting (Australia)	The separate and combined use of NH <sub>3</sub> and CO <sub>2</sub> in refrigeration systems, Part 2: Sub - and trans-critical CO <sub>2</sub> systems
14:00	Bernhard Schrepf TÜV Sud Industrie Service GmbH (Germany)	European Safety-Standard EN 378 (2008) in combination with the German national Standard VDMA 24020-1 (2008) – on operating and energy efficiency for ammonia refrigeration systems
14:20	Coffee break	
Ammonia blends; new secondary coolants based on ammonia, Chairman: Stefano Filippini		
14:50	Anders Bache, Claes Stenhede (Italy) SB Kylteknik AB (Sweden); Alfa Laval (Italy)	Ammonia-Water solutions in ice rinks. The ultimate brine?
15:10	Ake Melinder Royal Institute of Technology, KTH (Sweden)	Properties and other aspects of aqueous ammonia solutions for indirect refrigeration systems
15:30	N. Cox, V. Mazur, D. Colbourne Earthcare (UK); Academy of Refrigeration (Ukraine)	The development of azeotropic ammonia refrigerant blends for industrial process applications
15:50	J. Germanus, S. Römer, D. Krauss ILK GmbH Dresden; Schick GmbH (Germany)	Applications of schickR723® blend in commercial refrigeration systems
16:10	Coffee break	
Absorption technology, Chairman: Fabio Polonara		
16:40	A. Arteconi, C. Brandoni, S. Colasanto, G. Santori Universita Politecnica delle Marche, Ancona, Italy	Design and simulation of an ammonia absorption chiller for the precooling of natural gas in a small-scale liquefaction plant
17:00	C. Ghiasi, M. Martí-Calatayud, T. Weimer, F. Ziegler Technical University Berlin (Germany)	Ammonia-water absorption heat pumps with membrane absorber
17:20	A. Hilligweg, Nuremberg University of Applied Sciences (Germany)	Potentials and limitations of trigeneration
17:40	Mihail-Dan Staicovici S.C. Varia Energia s.r.l. (Romania)	Further results in ammonia/water coabsorbent technology district trigeneration

**May 8, 2009 (Friday)**

Time	Authors	Paper
<b>Plenary lectures, Chairman: Klaas Visser</b>		
9:00	Nelson Mugabi Mayekawa Mfg Co.,Ltd. (Japan)	Semi-hermetic and hermetic ammonia compressor packages
9:30	Predrag Hrnjak University of Illinois at Urbana-Ch. (USA)	Charge minimization in small systems – opportunity for expanding use of ammonia as refrigerant
10:00	Andy Pearson Star Refrigeration Ltd (UK)	Making the case for heat pumps with Ammonia and Carbon Dioxide
10:30	Coffee break	
<b>Improvement of ammonia refrigerating systems, Chairman: Alexander Pachai</b>		
11:00	Stefano Filippini, Umberto Merlo LU-VE SpA (Italy)	A new generation of ammonia unit coolers
11:20	Rob Vandenkoer Evapco Europe (Belgium)	Selecting evaporative condensers for optimum system efficiency
11:40	Klaas Visser KAV Consulting (Australia)	A design procedure for energy efficient meat carton freezing systems
12:00	G. Eggen, T. Nilsen, O. Slettahjell, E. Steen, G. Svendsen; COWI AS; Foskraft AS (Norway)	Ammonia heat pump for district heating and cooling of an ice rink
12:20	Lunch break	
<b>Power and Cooling, Chairman: Trygve Eikevik</b>		
13:20	Vasile Minea Hydro-Québec Research Institute, Canada	Ammonia-water cycles for electrical power generation
13:40	V. Popa, L. Costiuc University of Galati; University of Brasov (Romania)	Study of cooling production with a combined power and cooling thermodynamic cycle
<b>Poster session</b>		
14:00	Dieter Krauss, Markus Gehres Schick GmbH (Germany)	Ammonia plant engineering and construction – Safe handling of NH <sub>3</sub> by guaranteed maximum efficiency and plant safety
	Kudrat Karimov Tashkent Technical University (Uzbekistan)	Characteristics of the heat exchanges of the cascade refrigeration machine, operating on ammonia, non-azeotropic mixture
	Sava Porneala, Cristian Iosifescu University of Galati (Romania)	Study of performance optimization for the water-ammonia resorption heat pump with two useful heating effects
	Cristian Iosifescu, Sava Porneala University of Galati (Romania)	Heating load optimization for the absorber of an absorption heat transformer

**15:30 Excursion in the complex "Sv. Naum" (18 km far from Hotel Metropol along the lake)**

**20:00 Gala dinner**

**May 9, 2009 (Saturday)**

<b>Safety and regulations, Chairman: Andrew Gigiel</b>		
9:00	Mark Roxburgh Mercury Technologies Ltd (UK)	Ammonia refrigeration safety management
9:20	Jonathan Fryer ISECO Consulting Services (Australia)	The use of strain gauge stress monitoring systems on ammonia refrigeration pipework affected by underground mining surface subsidence
9:40	Gratiela-Maria Tarlea Technical University of Bucharest	EU refrigeration and air conditioning legislation implementation in Romania - Ammonia as a very eco-efficient refrigerant alternative
10:00	Andy Pearson Star Refrigeration Ltd (UK)	Presentation the book "Ammonia as a Refrigerant", IIR 3rd edition (new)
10:20	<b>Closing ceremony - Resume</b>	
10:45	Informal coffee	

**Accompanying Persons Programme**

Presence at all social events of the conference: welcome drink, conference gala dinner, Excursion in the complex "Sv. Naum"

May 7, 13:30: Excursion in the Monastery complex of Kalishta near Struga, along the lake

May 8, 10:00: Visit at the Ohrid old bazaar with special jewels, filigree and Ohrid pearls