

FINAL PROGRAMME

May 5, 2005 (Thursday)

17:00-21:00 Registration
20:00 Welcome drink

May 6, 2005 (Friday)

Time	Authors	Paper
10:00	Opening ceremony	
Plenary lectures; Chairman: Anders Lindborg		
10:30	Ronald Vallort ASHRAE President (USA)	The Future of Refrigeration
11:00	Rajendra Shende Head of OzonAction, UNEP (Paris)	Importance of natural refrigerants in safeguarding the climate system and ensuring the sustainable development
11:30	Forbes Pearson Star Refrigeration Ltd (UK)	Ammonia – Yesterday, Today and Forever
12:00	Lunch break	
Expansion in the use of ammonia refrigerating systems; Chairman: Herman Halozan		
13:00	Björn Palm Royal Institute of Technology (Sweden)	Ammonia in small capacity heat pump and refrigeration systems
13:20	Andy Pearson Star Refrigeration Ltd (UK)	Water chillers with ammonia in building services applications
13:40	I. Eiermann, YORK, A. Hilligweg, Nuremberg University of Applied Sciences (Germany)	Remarks on the Use of Ammonia in Air-Conditioning Systems
14:00	Assaad Zoughaib, Denis Clodic Ecole des Mines de Paris (France)	Energy Performances Using Ammonia as Refrigerant in a Large Supermarket
14:20	Coffee break	
Improvement of ammonia heat exchangers; Chairman: Predrag Hrnjak		
14:50	Zahid Ayub, Isotherm Inc., M. C. Chyu, Adnan Ayub (USA)	Limited Charge Shell & Tube Ammonia Spray Evaporator with Enhanced Tubes for Thermal Storage System
15:10	Wolfgang Dietrich "thermowave" GmbH (Germany)	Module welded Plate Heat Exchanger within the NH ₃ Refrigeration circuit – effective technique for using at flooded and dry expansion applications
15:30	Hans Haukås Hans Haukås AS (Norway)	On the design of vertical risers from ammonia recirculation type evaporators
15:50	Dermot Cotter, Star Refrigeration Ltd, J. Missenden, M. Nasralla, G. Maidment	The Design of Ammonia Test Rig to Measure the Internal Boiling Heat transfer Coefficient of Ammonia at Low Heat Fluxes
16:10	Coffee break	
Ammonia and CO ₂ ; Chairman: Björn Palm		
16:40	Gert Koster Grasso International B.V. (The Netherlands)	CO ₂ as Refrigerant: Why, and When Beneficial
17:00	Niels Vestergaard Danfoss (Denmark)	CO ₂ Used as Low Temperature Refrigerant in Ammonia-CO ₂ Cascade Systems
17:20	M. Ono, K. Kawamura, N. Mugabi Mayekawa Mfg Co Ltd (Japan)	Ammonia Refrigeration System with CO ₂ as a Secondary Refrigerant

May 7, 2005 (Saturday)

Time	Authors	Paper
Plenary lectures; Chairman: Andy Pearson		
9:00	Anders Lindborg Ammonia Partnership (Sweden)	Ammonia Refrigeration Systems - the Necessity, Risks and 150 Years of Operation
9:30	Predrag Hrnjak University of Illinois at Urbana-Ch. (USA)	Charge Minimization in Ammonia Refrigeration Systems
10:00	Herman Halozan Graz University of Technology (Austria)	Heat Pump Systems with Ammonia as Refrigerant
10:30	Coffee break	
Renewal and improvement of ammonia refrigerating systems; Chairman: Ray Clarke		
11:00	Ray Clarke Iseco Consulting Services Pty Ltd (Australia)	Cold Storage Warehouse, Using Direct Expansion Ammonia Refrigerant
11:20	S. Dichev, N. Angelov, H. Nikolov University of Food Technologies (Bulgaria)	The Past and Present of Ammonia Refrigerating Systems in Bulgaria
11:40	Onur Devres, Istanbul Technical University; Cemal Yilmaz, Frigo Soğutma San. (Turkey)	Ammonia Refrigeration Industry in Turkey
12:00	M. Poirier, G. Pajani, D. Giguère - CANMET W. Dilk - CIMCO Refrigeration (Canada)	Development and Demonstration of an Innovative Integrated Refrigeration and HVAC System in a Recreational Complex Ice Rink
12:20	Lunch break	
Various applications; Chairman: Zahid Ayub		
13:20	G. Panno, S. Auguanno, A. Messineo, D. Panno University of Palermo (Italy)	Ammonia Heat Pump for Energy Saving in Food Industrial Processes: The Case of a Cheese Factory
13:40	M. Sharevski, I. Cherepnalkovski, Faculty of Mech. Eng. (Macedonia)	Characteristics of the Ammonia Turbocompressor and Possibilities for Application in the Refrigerating Systems
14:00	Vasile Minea, Inst. Hydro-Québec (Canada), F. Chiriac, Technical University (Romania)	Dual-Energy Heat Recovery Systems Using Ammonia/Water Mixtures
14:20	B. Cerkvencik, D. Žiher, A. Poredoš University of Ljubljana (Slovenia)	Ammonia Absorption Chillers in District Cooling Systems
Poster session		
14:40	Dieter Krauss, Schick + Co., Juergen Schenk, ILK (Germany)	Ammonia/Dimethyl Ether (R723) as a New Refrigerant Blend
	T. S. Lee, C. H. Liu, T. W. Chen, National Taipei University of Technology (Taiwan)	Thermodynamic Analysis of Opt. Condensing Temperature of Cascade Condenser for Cascade Refrigeration Systems Applying Natural Refrigerants CO ₂ /NH ₃
	M. Sharevski, V. Sharevski, V. Sharevska, Faculty of Mech. Eng. (Macedonia)	Performances of the Compressor Refrigerating Machines with Two-phase Ejectors

16:00 **Sightseeing in the old town of Ohrid**
20:00 **Gala dinner**

May 8, 2005 (Sunday)**9:00-11:00 Round Table**

Latest News in Techniques, Codes and Standards in Industrial and Commercial Ammonia Refrigeration (Reports from representatives of several countries and discussion)
 Chaired by Mr Anders Lindborg, Mr Brian Marriott (USA) and Bernhard Schremppf (Germany)

11:00-11:30 Coffee break

11:30 **Closing ceremony - Resume**

Accompanying Persons Programme

Presence at all social events of the conference: welcome drink, conference gala dinner, sightseeing in the old town of Ohrid
 May 6, 13:30: Excursion in "Sv. Naum" (18 km far from Hotel Metropol along the lake)
 May 7, 10:00: Visit at the Ohrid old bazaar with special jewels, filigree and Ohrid pearls