

# IDS - ISRAEL DESALINATION SOCIETY (R.A.)

11<sup>th</sup> Annual Conference

*Osmotic Processes - Past, Present and Future*



Stephen & Nancy Grand  
Water Research Institute

Technion - Israel Institute of Technology

Zuckerberg Institute for Water Research  
Chemical Engineering Department

Ben-Gurion University of the Negev



## 11<sup>th</sup> ANNUAL IDS CONFERENCE

*Osmotic Processes – Past, Present and Future*

*In memory of Prof. Sidney Loeb (1917-2008)*

*Monday 14 December 2009*



Evans Auditorium, Blaustein Institutes for Desert Research,  
Ben-Gurion University, Sede-Boqer Campus

# Program

*Sunday, December 13, 2009*

**19:00 Welcoming Dinner**

Sunday, December 13, 2009, third night of Hanukah.

*Monday, December 14, 2009*



### Transportations

**08:45** From Beer-Sheva train station (train arrives at 08:33 at the University Station)

**17:15** To Beer-Sheva train station (train departs at 18:34 from the Beer-Sheva University Station)

Details will follow.

**9:45 – 10:15 Registration**

**10:15–10:45 Welcoming remarks:**

**Yoram Oren** Program chair, Ben-Gurion University of the Negev

**Shmuel Kantor** President, Israel Desalination Society

**Rivka Carmi** President, Ben-Gurion University of the Negev

**Eilon Adar** Director, Zuckerberg Institute for Water Research, Ben-Gurion University of the Negev

**Rafi Semiat** Grand Water Research Institute, Technion, Israel Institute of Technology

**10:45-11:15 Words In memory of Sidney Loeb**

**Kenneth Preiss,** Ben Gurion University (Emeritus)

**Mordechai Shaham** Head, Department of Chemical Engineering, Ben-Gurion University of the Negev

**Pinhas Glueckstern** Mekorot Development & Enterprise LTD



Jacob Blaustein Center for  
Scientific Cooperation  
The Jacob Blaustein Inst. for  
Desert Research

Nov. 1, 09

### **Mailing address:**

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Conference Website: <http://w3.bgu.ac.il/ziwr/conference.htm>

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## 11:15 – 13:50 Morning session (M. Balaban, D. Hasson)

- 11:15 - 11:45 History of reverse osmosis - Sidney Loeb's work, **Julius ("Bud") Glater** and **Yoram Cohen** (UCLA)
- 11:45 - 12:10 Energy aspects in osmotic processes, **Rafi Semiat**, (Technion)
- 12:10 – 12:35 Engineering aspects of RO module design, **Markus Busch** (Dow Deutschland Anlagen GmbH)
- 12:35 – 13:00 Simultaneous power recovery of gauge and osmotic pressure from brine of SWRO desalination plants, **Boris Liberman** (IDE)
- 13:00 - 13:25 Reverse osmosis desalination with high permeability membranes – Cost optimization and research needs, **Yoram Cohen** (UCLA)
- 13:25 - 13:50 Isobaric energy recovery devices for reverse osmosis and pressure retarded osmosis, **Jeremy Martin** (ERI)



- 13:50 – 14:50 **Lunch and visit to ZIWR Desalination Pilot**
- 14:15 – 14:45 **Annual Meeting of Israel Desalination Society**



## 14:50-17:15 Afternoon session (O. Kedem, P. Glueckstern)

- 14:50 -15:15 Pressure retarded osmosis (PRO), **Stein Erik Skilhagen** (Statkraft)
- 15:15 -15:40 Osmotic pressure - a driving force in colloidal systems, **Moshe Gottlieb** (Ben Gurion University)
- 15:40 -16:05 Osmotically and thermally driven membrane processes, **Tzahi Cath** (Colorado School of Mines)
- 16:05 -16:30 Osmotic effects of biofouling in RO processes: Physical and physiological measurements and mechanisms, **Moshe Herzberg** (Ben Gurion University)
- 16:30 -17:00 Closing lecture: Future of osmotic processes, **Mark Wilf** (TetraTech)



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### Organizing Committee

Y. Oren, M. Balaban, J. Gilron, D. Hasson, E. Korin, R. Semiat



Nov. 1, 09

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