Oral Presentations List

1. **A scalable method for producing graphene membranes with nanofiltration properties**  
   Mainak Majumder, Monash University, Australia

2. **Large scale desalination system for 21st century key technology with low energy and low environmental impact**  
   Masaru Kurihara, Toray Industries, Inc., Japan

3. **From natural to bioassisted and biomimetic artificial water channel systems**  
   Mihail Barboiu, Institut Europeen des Membranes, France

4. **A fifth fundamental rule for protein-repulsive surfaces or membranes**  
   Georges Belfort, Rensselaer Polytechnic Institute, USA

5. **Better membrane chromatography requires more monodisperse pores**  
   Chuanfang Yang, Institute of Process Engineering, CAS, China

6. **Biofouling resistant membranes made of green silver nanoparticles**  
   Isabel Escobar, The University of Toledo, USA

7. **High recovery desalination – Overview of strategies**  
   Jack Gilron, Ben Gurion University, Israel

8. **Responsive membranes for tailored separations**  
   Ranil Wickramasinghe, University of Arkansas, USA

9. **Voltage activated carbon nanotube membranes as biomimetic platforms**  
   Bruce Hinds, University of Washington, USA

10. **High performance forward osmosis and pressure retarded osmosis membranes - Structures, performance, and future perspectives**  
    Chuyang Tang, The University of Hong Kong, Hong Kong

11. **Investigating antifouling mechanisms of zwitterionic materials from molecular dynamics simulations**  
    Xianghong Qian, University of Arkansas, USA

12. **Reverse electrodialysis: Sustainable energy from blue water**  
    Jamie Hesteckin, University of Arkansas, USA

13. **CO2 capture in H2 production by polymeric membranes**  
    Ikuo Taniguchi, Kyushu University, Japan
14. Self-assembled zwitterionic copolymers as selective layers for high flux, fouling-resistant, size-selective membranes
Ayse Asatekin, Tufts University, USA

15. Engineered membrane roughness: the potential of patterns
John Pellegrino, University of Colorado, USA

Kamalesh K. Sirkar, New Jersey Institute of Technology, USA

17. Carbon dioxide capture membranes for artificial photosynthesis
Daniel Miller, Lawrence Berkeley National Laboratory, USA

18. Synthesis of membranes for artificial photosynthesis
Nathaniel A. Lynd, Lawrence Berkeley National Laboratory / UT-Austin, USA

19. New membranes for CO2 separation/capture and water purification
Winston Ho, The Ohio State University, USA

20. Advanced membranes for molecular separations in organic solvents
Andrew Livingston, Imperial College, United Kingdom

21. Mixed matrix membranes containing functionalized carbon nanotubes for water treatment
Enrica Fontananova, ITM-CNR, Italy

22. Reverse electrodialysis in energy sustainability applications
Glenn Lipscomb, University of Toledo, USA

23. Bioinspired membrane engineering for water applications
A.G.(Tony) FANE, Nanyang Technological University, Singapore: Plenary Speaker

24. CO2-induced plasticization effect in graphene oxide membranes
Ho Bum Park, Hanyang University, South Korea

25. Developing desired hollow fiber membrane for Forward Osmosis (FO), Pressure Retarded Osmosis (PRO) and low pressure Nanofiltration (NF)
Lei Shi, Nanyang Technological University, Singapore

26. A new Membrane-Aerated Biofilm Reactor (MABR) for wastewater treatment
Geert Henk Koops, GE Water & Process Technologies, Canada

27. Advanced coating materials for fouling resistant water purification membranes
Young-Hye Na, IBM Almaden Research Center, USA

28. An introduction to single ion conducting polymer electrolytes for Li-ion batteries
Bryan D. McCloskey, UC, Berkeley and LBNL, USA

29. Salinity Gradient Power from brines through reverse electrodialysis: From laboratory experiments to the first operating prototype in the world
Andrea Cipollina, Università di Palermo, Italy

30. Supported thin-film hydrophilic nanocomposites for reverse osmosis membranes
Heather L. Jamieson, Arizona State University, USA

31. Alkaline sulfide solution regeneration utilizing EDU membrane systems
Corby G. Anderson, Colorado School of Mines, USA
32. Application of microporous fluoropolymeric membranes for challenging separations  
   Uwe Beuscher, W.L. Gore & Associates, Inc., USA

33. Nanocarbon–based membranes for high performance environmental applications  
   Timothy Tan, Nanyang Technological University, Singapore

34. Taking advantage of N-Heterocyclic polymers for membrane application  
   Suzana Nunes, King Abdullah University of Science and Technology (KAUST), Saudi Arabia

35. Evaluation of industrial-scale surface water ultrafiltration and media filtration systems for the production of drinking water  
   Mohamed Kheireddine Aroua, University of Malaya, Malaysia

36. Anti-fouling and separation performance of novel inorganic-organic hybrid thin-film composite (TFC) membrane  
   Juha Nikkola, VTT Technical Research Centre of Finland, Finland

37. Preparation and transport properties of polyaniline – based composite for fuel cell applications  
   Abdullah Sultan, King Fahd University of Petroleum & Minerals, Saudi Arabia

38. Polymetric membranes for water treatments: An atomistic simulation  
   Elena Tocci, Research Institute on Membrane Technology (ITM-CNR), Italy

39. Advances and research needs in graphene-based membrane science and engineering  
   Rosemarie Wesson, National Science Foundation, USA: Plenary Speaker

40. Carbon nanofluidics of fast water transport under graphitic nanoconfinements  
   Hyung Gyu Park, ETH Zurich, Switzerland

41. Emerging markets: Small scale renewable energy powered membrane filtration for removal of dissolved contaminants from water  
   Andrea Schaefer, KIT, Germany

42. DNA-based gating membranes and nanodevices  
   Thomas Schäfer, Polymat, University of the Basque Country, Spain

43. New approach for scientific research on RO membrane  
   Masahiro Kimura, Toray Industries, Inc., Japan

44. Advanced nanofiltration and functionalized membranes for difficult to treat process separations  
   Ilan Wilf, Ultura water Inc., USA

45. Synthesis and characterization of high performance thin film composite flat sheet membranes for pressure retarded osmosis  
   Ye Li, Nanyang Technological University, Singapore

46. Challenges for the integration of membrane separations in energy production processes in Brazil  
   A. Claudio Habert, Universidade Federal do Rio de Janeiro, Brazil

47. Hydrophilic polyethersulfone copolymers for UF membranes  
   Martin Weber, BASF SE, Germany
48. TR Polymeric Membranes For Water And Energy Generation
   Young Moo Lee, Hanyang University, South Korea

49. Sod-ZMOF/polyimide mixed-matrix membranes for CO2/CH4 separation
   Ayse Kilic, Istanbul Technical University, Turkey

50. Surface modification of RO membranes with hydrogels for fouling reduction
   Jochen Meier-Haack, Leibniz-Institut für Polymerforschung Dresden e.V., Germany

51. Super-hydro-tunable membranes for advanced separations and processing of biofuels
   Michael Hu, Oak Ridge National Laboratory, USA

52. Making new membranes for forward osmosis
   Jeffrey McCutcheon, University of Connecticut, USA

53. Non-invasive monitoring of membrane processes using fluorescence spectroscopy
   João G. Crespo, FCT - Universidade Nova de Lisboa, Portugal

54. Nanotechnological application in water desalination: NAWADES
   Alberto Figoli, ITM-CNR, Italy

55. New membrane operations for redesign of process engineering
   Enrico Drioli, ITM–CNR, c/o University of Calabria, Rende, Italy: Plenary Speaker

56. Biofunctionalized responsive membranes
   Lidietta Giorno, ITM-CNR, Italy

57. Ion sorption and transport in crosslinked polyelectrolyte membranes
   Donald R. Paul, University of Texas at Austin, USA: Plenary Speaker

58. New developments in understanding ion transport in an electric field
   Mathias Wessling, University of Aachen, Germany: Plenary Speaker

59. Pilot-scale fertiliser driven forward osmosis desalination: Performance, limitations and life cycle assessment
   Ho Kyong Shon, University of Technology, Australia

60. Membrane desalination: Current status and advancements toward reducing energy consumption, mitigating fouling and mineral scaling and increasing recovery
   Yoram Cohen, University of California, USA