



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

New Frontiers in Sustainable Fuels and Chemicals: What's Beyond the Horizon?

1601 Elings Hall, UC Santa Barbara Campus
Thursday, February 6, 2014

- 8:00 am Hotel shuttle pick-up
8:15-8:35 Coffee and registration
8:35-8:45 Welcome and opening remarks (E. McFarland, C. Hawker)
- 8:45-9:10 Rational and Irrational Responses to Carbon Dioxide (C. Greig)
9:10-9:35 Application and Innovation in Materials Science for the Energy Industry (E. Williams)
- Session 1: Sustainable Feedstocks, Intermediates, and Materials
Discussion Panel: Mike Gordon (Chair), Charlie Campbell, Daniel Klein-Marcuschamer
- 9:35-9:55 The Mass in the Mass Balance is Very Very Large (T. Pollock)
9:55-10:15 Where Will the Commodity Chemical Industry be in 100 years? (R. Snell)
10:15-10:30 Coffee
10:30-10:50 The Global Mass Transfer Challenge in Scaling Clean-Energy Production (C. Wadia)
10:50-11:10 Making More Molecules for Mobility & Materials (C. Mesters)
11:10-11:30 Urban Mining of Used Nuclear Fuel as a Source of Valuable Materials (M. Nilsson)
- 11:30-12:50 Discussion and Working lunch (video presentation and discussion by Ove Hoegh-Guldberg)
- Session 2: Sustainable Chemical Conversion Processes
Discussion Panel: Mike Doherty (Chair), Peter Gray, Howard Fong
- 12:50-1:10 Can a Carbohydrate Cracker Compete with a Petro-Based Cracker for Chemical Intermediates? A Levulinic Acid Case Study. (C. Leibig)
1:10-1:30 Process Plants for the Not So Near-Term Future (A. Rao)
1:30-1:50 Sustainable Chemicals Production – Challenges and Opportunities (S. Gadewar)
1:50-2:10 Future Technologies for Integrated Electrical Load Leveling and Production and Use of Biomass (C. Campbell)
2:10-2:30 Discussion and Coffee
- Session 3: Sustainable Production and Use of Energy
Discussion Panel: Martin Moskovits (Chair), Chris Greig, Cyrus Wadia
- 2:30-2:50 Expanding Nuclear Energy Beyond Base-Load Electricity Generation: Challenges and Opportunities (D. Ingersoll)
2:50-3:10 Visions of Our Transportation Future (M. Barteau)
3:10-3:30 Going All Solar (R. Geyer)
3:30-3:50 Energy Efficiency--the Low Hanging Fruit is Ripe (D. Auston)
- Session 4: None of the Above: Big Ideas That Just Might Not Be So Crazy (Panel Led Open Discussion)
Discussion Panel: Glenn Fredrickson, Eric McFarland, Carl Mesters

To Follow for confirmed participants, wine reception at Elings Hall, and dinner at 6:30pm at Mosher Alumni House, UC Santa Barbara Campus