# Year of Transition, Material Opportunities, and Challenges

## Welcome Reception

**MONDAY, SEPTEMBER 23**

5:30–7:00pm  Welcome Reception  
Sponsor: Entegris

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## MONDAY, SEPTEMBER 23

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| 5:30–7:00pm | Welcome Reception  
Sponsor: Entegris                                                   |

## TUESDAY, SEPTEMBER 24

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<tr>
<td>7:30–8:30am</td>
<td>Welcome/Registration/Check-in/Continental Breakfast</td>
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| 8:30–8:35 | Welcome Remarks  
Dave Anderson, President, SEMI Americas                                                        |
| 8:35–8:40 | OPENING REMARKS                                   
Kevin Peterson, SMC and EMG Co-chair; Vice President, Sales and Marketing, JX Nippon Mining & Metals |
| 8:40–9:20 | KEYNOTE                                           
**New Vehicle Sensors and Materials**  
Dragos Maciuca, PhD, Executive Technical Director, Palo Alto Research and Innovation Center at Ford Motor Company |
| 9:20–9:50 | KEYNOTE                                           
**On the Essential Constituents for Future Logic Technologies**  
Carlos H. Diaz, PhD, Senior Director, Corporate Research, TSMC                                    |
| 9:50–10:20 | Networking Break  
Sponsor: 35 Milton                                                                                     |

## SESSION 1: Economic and Market Trends

10:20–10:25 | Welcome and Introductions  
Maria Peterson, PhD, SMC Committee Member; Corporate Venturing and Innovation, JSR Micro        |
10:25–10:55 | The Economic Cycle Outlook and Semiconductors  
Duncan Meldrum, Chief Economist and Founder, Hilltop Economics                                   |
Len Jelinek, Senior Director, Semiconductor Manufacturing, IHS Markit                             |
11:25–11:55 | A Wall Street View on the Electronic Materials Space  
Duffy Fischer, Equity Analyst, Barclays                                                           |
11:55–12:25 | Wall Street’s View on the Cycle and Space  
Krish Sankar, Managing Director, Cowen and Company                                                  |
12:25–1:30  | Lunch                                                                                           |

## SESSION 2: Silicon and Alternative Substrates

1:30–1:35 | Welcome and Introductions  
Neil Weaver, SMC Committee Member; Vice President, Product Development and Applications Engineering, SEH America |
1:35–2:05  | The Silicon Outlook—Underpinning of the Next Wave  
Mark Thirsk, SMC Committee Member; Managing Partner, Linx Consulting                               |
2:05–2:35  | Silicon Wafers in an Age of Diversifying Requirements  
Kevin Lite, Director of Applications Technology Americas, Siltronic                                |
2:35–3:05  | Accelerating Commercialization of SiC Power Electronics: High Volume Applications and Future Trends  
Victor Veliadis, PhD, IEEE Fellow; Executive Director and CTO, PowerAmerica                         |
3:05–3:35  | Networking Break  
Sponsor: AirLiquide                                                                                 |

## SESSION 3: More Than Moore

3:35–3:40 | Welcome and Introductions  
Mansour Moinpour, PhD, SMC Committee Member; Merck Fellow, EMD Performance Materials               |
3:40–4:10  | Advanced Packaging for Heterogeneous Integration  
Sairam Agraharam, PhD, Senior Principal Engineer, Intel                                              |
3:40–4:40  | CMOS Image Sensors: Challenges and Opportunities  
Jeff Gambino, PhD, Senior Process Integration Engineer, ON Semiconductor                            |
4:40–5:10  | Fan Out for Heterogeneous Integration  
John Hunt, Senior Director, Engineering, Technical Promotion, ASE (U.S.)                           |
5:10–7:10  | Networking and Reception  
Sponsor: JX Nippon Mining & Metals                                                                    |

## Networking Reception

**Conversation. Camaraderie. Refreshments**

**Tuesday, September 24**  
5:10–7:10pm  
Sponsor: JX Nippon Mining & Metals
**WEDNESDAY, SEPTEMBER 25**

7:30–8:30am  Continental Breakfast

8:30–8:35  Welcome Remarks
Rozalia Beica, SMC Co-chair; Global Strategic Marketing Leader, DuPont Electronics

8:35–9:05  KEYNOTE
Semiconductor Industry—Chemical Companies at a Crossroad
Bertrand Loy, President and Chief Executive Officer, Entegris

SESSION 4  EMERGING MATERIALS AND APPLICATIONS
9:05–9:35  Expanding Chemistry and Materials Research Through the Use of Quantum Computing
Jeannette M. Garcia, PhD, Global Lead for Quantum Applications, Quantum Chemistry and Science, IBM Research

9:35–10:05  Applications and Challenges for 2D Materials
Quentin Smets, Researcher, IMEC

10:05–10:35  Networking Break

SESSION 5  AUTOMOTIVE IC DRIVES MATERIAL GROWTH
10:35–10:40  Welcome and Introductions
Sanjay Malhotra, SMC Committee Member; Senior Director, Applied Materials

10:40–11:10  Autonomous and Assisted Driving Explained
Tim Wong, Technical Marketing, Autonomous Vehicles, NVIDIA

11:10–11:40  Process and Materials Advancements for Automotive Devices
Schubert Chu, PhD, Vice President and Product Unit Head, Applied Materials

11:40–12:10  Silicon Carbide (SiC) Enabling Industry Transition to Electric Vehicle
Warren Weeks, Vice President and General Manager, Materials, Wolfspeed, A Cree Company

12:10–1:30  Lunch

SESSION 6  FABS OF THE FUTURE
1:30–1:35  Welcome and Introductions
Katherine Hutchison, PhD, SMC Committee Member; Director of Strategic Marketing, Versum Materials

1:35–2:05  Living in Interesting Times: Perspectives on Strategic Materials
Bruce Tufts, PhD, Vice President and Director of the Fab Materials Organization, Global Supply Chain (GSC), Intel

2:05–2:35  The Increasing Quality Demand in the Future Electronics Industry Value Chain
John Lepper, Vice President, Central Engineering and Global Quality, GLOBALFOUNDRIES

2:35–3:05  Future of the Bottle
Mark Slezak, President, JSR Micro

3:05–3:35  Networking Break

SESSION 7  EXECUTIVE PANEL
3:35–3:45  Welcome and Introductions
Mark Thirsk, SMC Committee Member; Managing Partner, Linx Consulting

3:45–3:50  ASE (U.S.), John Hunt, Senior Director, Engineering, Technical Promotion

3:50–3:55  DuPont, Peter Trefonas, PhD, DuPont Fellow

3:55–4:00  Applied Materials, Mike Rosa, PhD, Head of Marketing

4:00–4:05  Micron Technology, Gurtej Sandhu, PhD, Senior Fellow and Vice President, Technology Development Engineering

4:05–4:45  Panel Discussion, Q&A

4:45–5:00  Closing Remarks
Kevin Peterson, SMC and EMG Co-chair; Vice President, Sales and Marketing, JX Nippon Mining & Metals

**Wi-Fi Access**
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Questions? Contact Lin Tso at ltso@semi.org

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