

2026 STRATEGIC MATERIALS CONFERENCE ORGANIZING COMMITTEE

Thank you for contributing your time and expertise to the Strategic Materials Conference. SEMI appreciates your commitment to professional excellence.

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SEMI ELECTRONIC MATERIALS GROUP (EMG)

The SEMI Electronic Materials Group—EMG is the backbone of the Strategic Materials Conference—SMC Organizing Committee.

EMG is a technology community representing SEMI member companies that provide substrates, polymers, metals, organic and inorganic materials, chemicals, and gases that are developed or in use for the manufacturing of electronics.

EMG addresses the markets for electronics manufacturing including but not limited to MEMS & Sensors, semiconductors, packaging, PCB & assembly, and flexible hybrid electronics.



Thank you for attending SMC 2026.

**SEE YOU NEXT YEAR AT
SMC 2027**



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SMC 2026 PRESENTATION ACCESS

Password found in the Welcome Email sent prior to the conference. Available presentations will be posted by July 15, 2026.

Questions? Contact Karen Popp at kpopp@semi.org

MATERIALS INNOVATION IN THE AI ERA: POWERING SEMICONDUCTORS TO ONE TRILLION DOLLARS AND BEYOND

LET'S KICKOFF SMC 2026 WELCOME RECEPTION

Monday, July 13
5:30-7:00pm



MONDAY, JULY 13

5:30-7:00pm **Welcome Reception**

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Welcome Remarks

Joe Stockunas, President,
SEMI Americas

TUESDAY, JULY 14

8:00-8:30am **Registration, Check-In
& Continental Breakfast**

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Welcome Remarks

Joe Stockunas, President,
SEMI Americas

Opening Remarks

Sanjiv Bhatt, PhD, Co-Chair, SMC Committee;
Senior Director, Global Marketing and
Business Development, Semiconductor
Business, Mitsubishi Chemical Group

KEYNOTE

A Strategic Approach in the Era of Materials Innovation

Hideaki Okamoto, Director, New Generation
Business Development, Mitsubishi Chemical

KEYNOTE

Co-Engineering the AI Era: How Materials, Process and Equipment Innovations Converge in Advanced Packaging

Prahalad Parthangal, PhD,
Technical Director, Advanced
Packaging, Lam Research

9:50-10:20 **Networking Break**

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SESSION 1 MARKET, GEOPOLITICAL & ECONOMIC TRENDS, FORECAST, & OUTLOOK

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10:20-10:25 **Opening Remarks**

Aldo Orsi, Member, SMC Committee;
Global Business Director, Quartz Solids,
Momentum Technologies

10:25-10:55 **AI Is Finally Moving Needles for
Semi Equipment. Now What?**

Charles Shi, PhD, Managing Director,
Needham & Company

10:55-11:25

Materials Challenges from the Supply Side

Mark Thirsk, Managing Partner,
Linx Consulting

Semiconductor Megatrends, Fab Investment, and the Mid-Year Equipment Outlook

Clark Tseng, Senior Director, Market
Intelligence, SEMI

11:25-11:55

News from Washington and Beyond

Joe Stockunas, President, SEMI Americas

11:55-1:15

Lunch

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SESSION 2

MATERIALS FOR SCALABLE AI SYSTEMS

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1:15-1:20pm **Opening Remarks**

Lu Gan, PhD, Member, SMC
Committee; Head of Technology Strategy
& Roadmap, EMD Performance Materials,
a subsidiary of Merck KGaA

1:20-1:50

Materials Discovery in the Era of Scientific Super Intelligence

Katherine Hutchinson, PhD, Vice President and
General Manager, Metallics, Thin Film Business,
EMD Electronics

1:50-2:20

Taming AI Scaling Stresses— Digital Materials Discovery for Manufacturing-Ready Adoption

Mark O'Neill, PhD, Vice President, R&D and
Engineering, Entegris

2:20-2:50

Pioneering Lithographic Materials for the AI Era—Next Generation EUV Materials and Path to Sustainable Patterning

Mingqi Li, PhD, Technical Fellow,
Qnity Electronics

2:50-3:20

Networking Break

3:20-3:50

Thermal Materials Implications of the Explosion in AI Compute Demand

Chris Baldwin, Vice President, Product,
Boston Materials

SESSION 3

ADVANCED PACKAGING & MATERIALS INTEGRATION

3:50-3:55

Opening Remarks

Kamran Akhtar, PhD, Member, SMC
Committee; Senior Director, Process
Development, Samsung Semiconductor

3:55-4:25

Materials Engineering for Improved Stacking in HBM and Chiplet Integration

Sony Varghese, PhD, Managing Director,
Applied Materials

4:25-4:55

Advanced Packaging Materials Innovation Through Co-Creative Evaluation Platform

Kazuyuki Mitsukura, PhD, Technical Director,
Resonac America

4:55-5:25

Advanced Packaging at the Heart of the AI Age

Rozalia Beica, Field Chief Technology
Officer, Packaging Technologies,
Rapidus Design Solutions

5:25-6:30

Networking Reception

WEDNESDAY, JULY 15

7:30-8:00am **Registration, Check-In
& Continental Breakfast**

8:00-8:05

Opening Remarks

Arun Karamcheti, PhD, Co-Chair,
SMC Committee; Managing Director, Product
Marketing and Strategy, Applied Materials

8:05-8:35

KEYNOTE

From Innovation to Scale: Ramp Readiness in the AI Era

Beth Adkison, Senior Director, Global
Materials Organization, Intel

8:35-9:05

KEYNOTE

Compound Semiconductors in the Cognitive Age

Chuck Mattera, PhD, Founder and
Chief Executive Officer, Avalanche Thinking

SESSION 4

FROM LAB TO FAB—ACCELERATING THE INDUSTRIALIZATION OF NEXT GENERATION MATERIALS DEPLOYMENT AND MANUFACTURING

9:05-9:10

Opening Remarks

Kamran Akhtar, PhD, Member, SMC
Committee; Senior Director, Process
Development, Samsung Semiconductor

9:10-9:40

How Democratizing Fab Enables Rapid Innovation

Mitchell Hsing, PhD, Co-Founder and
Chief Executive Officer, InchFab

9:40-10:10

The Hedgehog and the Fab

Adrian Alvarez, Business Development
Director, Deputy Chief Technology Officer,
RASIRC

10:10-10:40

Networking Break

10:40-11:10

From Lab to Fab—Emerging Materials for the AI-Era Memory Hierarchy

Asif Khan, PhD, Associate Professor, School
of Electrical and Computer Engineering,
Georgia Institute of Technology

11:10-11:40

Industrialization of Graphene to Enable Next-Generation Processing

Brian Larabee, Chief Commercial Officer,
General Graphene

11:40-12:40

Lunch

NETWORKING RECEPTION

Tuesday, July 14
5:40-7:00pm

SESSION 5 QUANTUM AND THE FUTURE OF EMERGING DEVICES

12:40-12:45pm **Opening Remarks**

Kevin D. Peterson, Member, SMC Committee;
Vice President, Sales and Marketing,
JX Advanced Metals USA

12:45-1:15 **Enabling Quantum Computing Through
Advanced Packaging**

Pooya Tadayon, PhD, Vice President and
Senior Fellow, GlobalFoundries

1:15-1:45

Defining the Quantum-GPU Supercomputer

Elica (Elitsa) Kyoseva, Director, Quantum
Algorithm Engineering, NVIDIA

1:45-2:15

Industrializing the Next Compute Era— From Materials to Manufacturing

Percy Gilbert, PhD, Senior Vice President,
Engineering, SkyWater Technology

2:15-2:45

Networking Break

SESSION 6 EXECUTIVE PANEL — STRENGTHENING THE SUPPLY CHAIN FOR INDUSTRY GROWTH

2:45-2:50 **Opening Remarks**

2:50-4:00 **Moderator**

Wenge Yang, PhD, Member, SMC Committee;
Vice President, Market Strategy, Entegris

Panelists

- Chuck Mattera, PhD, Founder and
Chief Executive Officer, Avalanche Thinking

- Brian Larabee, Chief Commercial Officer,
General Graphene

- Pooya Tadayon, PhD, Vice President and
Senior Fellow, GlobalFoundries

- Beth Adkison, Senior Director, Global
Materials Organization, Intel

- Prahalad Parthangal, PhD, Technical Director,
Advanced Packaging, Lam Research

4:00-4:10 **Closing Remarks**

Sanjiv Bhatt, PhD, Co-Chair, SMC Committee;
Senior Director, Global Marketing and
Business Development, Semiconductor
Business, Mitsubishi Chemical Group

Agenda Subject to Change

Connect and share your experience!
#SEMI_SMC