

Medical Polymers - Improving the Quality of Life

*Trends in Materials, Design, Manufacturing, Sustainability, Sterilization,
and Safety*

SPE's Medical Plastics MiniTec will be held Monday February 3rd through Tuesday February 4th, a day prior to and concurrent with the first day of the 2025 MD&M West Expo & Conference in the Anaheim Convention Center.

Innovations in medical plastics and associated applications are rapidly advancing in exciting ways, enabling therapies and new devices that improve patients' quality of life. Concurrently, the medical device and healthcare industries face several new and evolving challenges related to materials, regulatory requirements, product design, and materials characterization and validation in order to ensure better outcomes for patients while being mindful of environment waste and sustainability efforts. Join us for a two-day program with experts in the medical plastics industries that explore these topics and more!

Topics include:

- Innovations in Medical Polymer Materials
- New Product Designs Enabled by Medical Polymers
- Sustainability of Medical Polymers Throughout the Product Lifecycle
- Materials & Methods to Address Evolving Regulations and Improve Patient Safety
- Evolving Sterilization Technologies to Improve Safety
- Advances in Next-Generation Polymer Processing

Poster Session

In addition to the technical program from the podium, this MiniTec offers opportunities for poster presentations. These posters will be on display in the upper level hallway between the escalators and the conference rooms throughout the MD&M conference. If you are interested, please submit your 150 word poster abstract and contact information to the technical programming committee at mpd.tpc.submissions@gmail.com !

Keynote Presentation

Our distinguished keynote speaker, **Dr. Kimberly Chaffin**, is Vice President, Corporate Technologist at **Medtronic** based in Minneapolis, Minnesota. She is a member of the Global Officers Team, approximately 150 of the most senior leaders in the company. Kim has responsibility for leading research projects to advance new technologies across all businesses. Kim is a recognized expert in polymer material thermodynamics and characterization, especially as it relates to structure-property relationships that govern long-term stability and performance.

These live technical presentations and poster offerings will make this a must-attend event. We look forward to seeing you and your colleagues there. Don't miss it!

To register: click here: [SPE/MPD's MiniTec | IME West \(imeengineeringwest.com\)](https://www.imeengineeringwest.com)

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**Monday,
February 3, 2025**

MD&M West
Anaheim Convention Center Level
2, Rm 201 C&D
801 West Katella Ave
Anaheim, CA 92802

Schedule of Events:

7:30am – 7:50am
Registration & Poster Setup

8:00am – 7:00pm
(& all week of show)
Poster Exhibition

7:50am
Welcome

8:00am – 5:30pm
All Day – SPE MiniTec Day 1
(Lunch and Breaks Included)

5:30pm – 7:00pm
Membership Reception – meet
Poster Presenters & Exhibitors
(Included in Registration)

Registration to Attend will be
managed by Informa for all
conference attendees

Info & Online Registration:
[SPE/MPD's MiniTec | IME West](#)
imengineeringwest.com

Contact Information:
Chris Lyons
510-673-3702
clyons@exponent.com

or

Trisha Costeux
989-423-9758
chunxia.costeux@dupont.com

Sponsorships:
Chris Konitzer
847-257-2865
christopher.konitzer@avient.com

Conference Co-Chairs:

Chris Lyons | Exponent, Inc. & Trisha Costeux | DuPont

Keynote Speaker Kimberly Chaffin, Ph.D.
Vice President Corporate Technologist | Medtronic

(8:00am – 10:00am)

1. Innovations in Medical Polymer Materials

The Expanding Role of Hydrogels in Medical Device Innovation

Joanne Moody – Zeta Scientific

PFAS-Free Surface Modifications Using Additives for Optimum Fluid Management

Laurence Chow – Techmer PM

Antimicrobials in Medical Plastics

Mai Ha – Microban

Non-Additive Antimicrobials for Medical Devices

Emma Wigglesworth – Inhibit Coating Ltd

(Break 10:00am – 10:15am)

(10:15am – 12:15pm)

2. New Product Designs Enabled by Medical Polymers

Driving Pharmaceutical Device Evolution

Adrienne Clark – Fikst

Innovations in Tube-to-Connector Joining for Device Manufacturing

Jeff Ellis – EWI

Impact of Novel Materials on Medical Device Design and Vice Versa

Rob Klein – AtriCure

Challenges in Optimal Skin Adhesion of Wearable Technology

Aniruddha Palsule – Stress Engineering Services

(Lunch 12:15pm – 1:15pm)

(1:15pm – 2:15pm)

Featured Keynote Presentation

Kimberly Chaffin – Medtronic

(2:15pm – 3:15pm)

3. Sustainability of Medical Polymers Throughout the Product Lifecycle

Enhancing Supply Chain Sustainability from Pellet to Package

Don Handrow – Prent Corporation

The Pursuit of Sustainability: Plastics, Packaging, and Patient Care

Tania Ferlin – Huskey Technologies

(Break 3:15pm – 3:30pm)

(3:30pm – 5:30pm)

4. Materials & Methods to Address Evolving Regulations and Improve Patient Safety

Low Cyclic Silicone Materials for Healthcare Applications

Trisha Costeux – DuPont

Ensuring Patient Safety with Chemical Analysis After Medical Device Recalls

Chris Lyons – Exponent, Inc.

When One Particle Ruins Your Whole Day

Becky Bader – Cambridge Polymer Group

Biocompatibility and Chemical Safety in Wearables

Naomi Clayman – Exponent, Inc.

(Move to Reception 201 A&B)

SPECIAL THANKS TO OUR SPONSORS!

For Sponsorship opportunities,
please contact **Chris Konitzer**

847-257-2865
christopher.konitzer@avient.com

**Join us at 5:00pm for:
New Member Reception!
Enjoy a Beverage & Snack
Meet Poster Presenters
Visit Exhibitors**

SPE MPD MEMBERSHIPS WILL BE ACCEPTED
SPE offers:

Name recognition, access to expansive library of publications, and extensive networking opportunities around the world!

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**Tuesday,
February 4, 2025**

MD&M West
Anaheim Convention Center Level 2,
Rm 201 C&D
801 West Katella Ave
Anaheim, CA 92802

Schedule of Events:

8:30am – 9:00am
Coffee and Refreshments
3rd Floor Ballroom

9:00am – 10:00am
Informa Welcome & Keynote
3rd Floor Ballroom

9:00am – 5:00pm
(& all week of show)
Poster Exhibition

10:15am – 4:30pm
All Day – SPE MiniTec Day 2
(Lunch and Breaks Included)

4:45pm
Closing Remarks and Farewell

Registration to Attend will be managed by Informa for all conference attendees

Info & Online Registration:
[SPE/MPD's MiniTec | IME West](#)
([imengineeringwest.com](#))

Contact Information:
Chris Lyons
510-673-3702
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Conference Co-Chairs & Moderators:
Chris Lyons | Exponent, Inc. & Trisha Costeux | DuPont

(9:00am – 10:00am)

Informa Welcome & Keynote Presentation

(Break 10:00am – 10:15am)

(10:15am – 12:15pm)

5. Evolving Sterilization Technologies to Improve Safety

The Evolving World of Medical Device Sterilization

Natalie Dragunat – Syensqo

Medical Polymers Sterilization: Breaking Barriers to Machine-Based Radiation Technology

Md Kamrul Hasan – PNNL

Chlorine Dioxide as a Compatible Sterilization Technique for Delrin® Polyoxymethylene

Elizabeth Stubbs – Delrin

Examination of NO₂ Sterilization on Polycarbonate Materials for Medical Applications

Pierre Moulinie – Covestro LLC

(Lunch 12:15pm – 1:15pm)

POSTER SESSION OPPORTUNITIES AVAILABLE

Calling All Poster Presenters! 4' x 3' Poster to be on display entirety of MD&M West Event. Complimentary access to MiniTec event available, (but poster presenters need not be present to have poster on display).

Digital copy of posters due by 1-10-2025.
(Poster selection & communication to presenters quickly)

For questions and guidance on posters please contact conference co-chairs.

SPE MPD MEMBERSHIPS WILL BE ACCEPTED SPE offers:

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(1:15pm – 2:45pm)

6. Advances in Next-Generation Polymer Processing

Achieving Process Excellence in Implantable Medical Device Manufacturing

Raghu Vadlamudi – Donatelle

Realtime Part Counts, Efficiency, and Process Controls Using Industry 5.0 and AI

Zachary Tyler Smith – SensFlo, Inc.

Advancements and Challenges in Microextrusion Techniques for Medical Catheters

Gregory Teh – jMedtech Coating Technologies

(Break 2:45pm – 3:00pm)

(3:00pm – 4:30pm)

Design for Micro Injection Molding of Medical Devices

Davide Masato – University of Massachusetts, Lowell

Virtual Factory - How Predictive Tolerance Analysis Can Improve Robustness and Reduce Time to Market of a Medical Device

Bill Torris – Nolato Medical Solutions

Enhancing Injection Mold Cooling Efficiency with Steady State Thermal Models and Composite Core Technology: Accelerating Cycle Times for Medical Device Manufacturing

David Crispino – Atalys

(4:30pm – 4:45pm)

Closing Remarks and Farewell

**OUR SESSION CONTINUES
THURSDAY!**

Please visit SPE Medical Plastics Division on the Expo floor for more technical content!