

Planet-Friendly Plastics: Latest Advances

*Feedstocks Replacing **Petroleum**: BioBased-Waste-GHG-Recycled Materials*

March 12 (Wed) – March 13 (Thu) 2025

Caesars Palace

Las Vegas, NV 89103, USA

Conference Chairs

Roger Avakian, formerly CTO & Senior Fello, PolyOne, USA

Dr. Terry Cooper, CEO-Global Polymer Consultants, ARGO Group, UK/USA

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WELCOME to InnoPlast Solutions 33rd conference; 14th on Re-Invention of Plastics!

After 90 years of unmatched benefits to human life, our Plastics Industry has come under scrutiny due to issues threatening the future, namely, (1) Climate Change (2) Land & Ocean Pollution and (3) Sustainability of Raw-Materials in the distant future, and lately (4) Micro-Nano Plastic Particles & Leached Chemicals in our Food Chain. Future technologies to take corrective actions and address Sustainability & Environmental concerns can be categorized in following two areas:

- (1) **Reduce/Eliminate Fossil-Feedstock**: Transitioning from traditional fossil based raw-materials to Renewable BioMass, Waste(s), GreenHouse Gas (GHG) Emissions, and Recycled Fossil/Biobased Plastics.
- (2) **Preserve/Respect Material Value**: Cycling into Valued Products in a preferential order such as: Mechanical Recycling of Fossil/BioBased Plastics > Chemical Recycling into Building Blocks > Pyrolysis Oil > BioFuels > Incineration > BioDegradation > Landfill

Re-Shaping of Polymers/Plastics industry has already begun; join us to witness the future!!!

March 11 (Tuesday) 2025	
Pre-Conference Course: Optional	
12:00 - 1:00 PM	Registration
1:00-1:45 PM	Polymeric Materials-101: Getting the Most out of this Conference <i>Fundamentals of Polymer Science & Technology will be presented at an executive business level, especially the acronyms and parameters controlling the performance. Transition from traditional petro-based plastics to bio-based plastics will be discussed with emphasis on necessity to replace fossil-feedstock; intent being to capture the most out of the conference presentations</i> Dr. Yash Khanna, InnoPlast Solutions, USA
1:45-2:30 PM	Speeding Up New Product Development: Mind-to-Market (or Shelf)-in-Months <i>New product development is an integral part of every industry and is a necessity for survival. Failures in new product development are more abundant than successes; thus contributing to \$MM losses. Failures can never be avoided but certainly be reduced. We will present some strategies that separate the best project management from the rest</i> Dr. Yash Khanna, InnoPlast Solutions, USA
2:30-3:00 PM	Coffee Break & Networking
3:00-4:30 PM	Micro-Nano Particles in our Food-Chain: a Hot-Issue for Plastics Industry <ul style="list-style-type: none"> • <i>Qualitative & Quantitative Scientific Results</i> • <i>Health & Safety</i> • <i>Proposed Solutions</i> Speaker(s) -TBA

March 12 (Wednesday) 2025

8:00 - 8:30 AM Registration & Networking Breakfast

8:30 -9:00 AM Welcome and Opening Remarks

(1)

Polymers & Plastics: Great Materials 4Ever but **WHY Re-Invention a Necessity !!!**

- *Plastics Industry with Un-Matched Benefits over 90 years now Faces Issues, namely, Global Warming, Plastics Pollution, Sustainable Feedstock Availability, and now Plastic Particles in Food-Chain with Unknown Health Effects.*
- *Renewable Agricultural-Waste + GHG Emissions + Recycled Plastics: Key to Reduction of Climate-Land-Ocean Pollution & Independence from Fossil-Feedstock*
- *Pursuit of Good-Old PE, PP, PET but Biobased.....**Innovations @ Work***
- *Specialty Biobased Plastics, DURABLE-to-Biodegradable/Compostable.*

Dr. Yash Khanna, President, **InnoPlast Solutions**, USA

U.S. Administration: May 2023

90% Fossil-Based Plastics Should be Bio-Based & Recyclable in a Decade or so

Plastics are to be Bio-Based & Recycled: Witness the Future Now !!!

9:00 – 9:40 **Witness the Non-Fossil Plastic Industry!**

(2)

Renewable Polymers and Associated Feedstock: A Global Overview

Doris de Guzman,

International Chemical Industry Consultant, **Green D Market Analytics**, USA

9:40 - 10:10 Coffee & Networking

De-Fossilized Plastics-Part-1

Good-Old PE/PP/PET & More *but* from BioMass

(GHG Reduction \geq 30%)

10:10 - 10:40 **A Special Presentation !**

(3)

De-Carbonizing America:

Bio-Refining Agricultural Waste into Biobased **PE**

Kelly Davis, Vice President, **New Energy Blue**, USA

10:40 - 11:30 **Bio-PP, Non-Fossil, Goes Commercial**

(4)

Dr. Terry Cooper, CEO-Global Polymer Consultants, **ARGO Group**, UK/USA

11:30 - 1:00 Lunch & Networking

1:00 - 1:30

(5)

Bio-PET

1:30 - 2:00

(6)

Building-Blocks from Corn-based Feedstock:

Vinyl Chloride for **PVC and Vinyl Acetate for **EVA/PVOH****

Dr. Alex Buck, Director-Industrial Innovation, **Iowa Corn**, USA

De-Fossilized Plastics-Part-2

Converting Carbon-Emissions / Waste into Building Blocks for Plastics

(Compounded Impact on GHG Reduction)

2:00 - 2:30 **Seeing GHG Emissions in a New Light !!!**

(7)

Converting C-Emissions and Organic Wastes into Valued Chemicals/Plastics

Dr. Yash Khanna, President, **InnoPlast Solutions**, USA

2:30 – 3:00 Coffee & Networking

- 3:00 - 3:30
(8) **GHG Emissions as a Feedstock for Performance Materials**
Mark Herrema, CEO, *AirCarbon*, USA
- Specialty Bio-Plastics**
Durable / High-Performance / Biodegradable
- 3:30 - 4:00
(9) TBA
- 4:00-4:30
(10) **PLA**
- 4:30-5:00
(11) **PHA**
- 5:00-5:30
(12) **Future of Plastics; a Brand-Owner's Perspective**
Challenges & Opportunities for Bio-Plastics and Recycled Materials
Dr. Bryan Haynes, Sen. Director-Global NonWovens, *Kimberly-Clark*, USA
- 5:30-7:30 *Cocktail Reception & Networking*

March 13 (Thursday) 2025

- 8:00-8:40 AM Breakfast & Networking
- De-Fossilized Plastics-Part-3**
Advances in Recycling Fossil/BioMass Derived PE/PP/PET
(GHG Reduction \geq 30%)
- 8:40-9:20
(13) **Executive Overview !**
Plastic Recycling A-to-Z: Sharply Focused Overview
This presentation will cover the recycling journey from Curbside Pickup to Processing Steps @ Material Recovery Facilities to End-Users
Adam Wozniak, Senior Manager-Sustainability, *Blue Polymers*, USA
- 9:20-11:50
(14) **Mechanical Recycling: End-Life-to-New-Life**
Commercial Supply and Packaging based on Recycled PE
TBA
- (15) **A Special Presentation !**
4-Principles to Enable Circular Economy: PET Bottles
Henry Zhang, Global Head, Marketing, Market Intelligence and ESG
Husky TechnologiesTM, Canada
- (16) **Distribution of Recycled PET based Packaging to Brand-Owners :**
Co-Designing Sustainable Packaging with Converters
Dr. Jennifer Mackey, Senior Director – Sustainability, *Bunzl*, USA

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Coffee & Networking
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(17) **Quality Issues vs Solutions for Mechanically Recycled PET**

(a) Case-Study of Performance Issues

(b) Solution and Recommendations for Quality Excellence

Dr. Yash Khanna, President, *InnoPlast Solutions*, USA

11:50-1:00 Lunch & Networking

1:00-1:30 **Chemical Recycling: End-Life-to-Building Blocks-to-Virgin PET**

(18) **A Role-Model for Circular Production:**

Post-Consumer Waste-to-Building Blocks-to-Virgin PET@ 1-Stop Facility

Dr. Dayton Street, Sen. Application Development Scientist, *Eastman*, USA

1:30-2:00 **Biological Recycling: Life-End-to-Building Blocks-to-Virgin PET**

(19) **Bio-Recycling of PET Waste: Commercial Scale Operation**

Dr Bruno Langlois, Director-Tech. & Institutional Partnerships, *Carbios*, France

2:00-2:30 **Valued Products from Hard-to-Recycle Multi-Material Waste**

(20) **Processing High-Performance Packaging Waste based on**

PE/tie/Nylon/EVOH/Nylon/tie/PE type Plastics

TBA

2:30-4:00

PANEL-DISCUSSION