

# US Biobased Coatings Summit 2019

Advancing the Transition Towards Biobased  
Materials in the Coatings Industry

13 & 14 November

Dallas, Texas

## KEY TOPICS

- Navigating Through the Biobased Coatings Market
- Sourcing Biobased Coatings for the US Market
- Regulations & Policy Framing the Coatings Industry
- Recognising the Technology within the Biological Coatings Market and its Potential

- Exploring the Opportunities within Coatings Applications
- Developing a Truly Sustainable Approach to the Coatings Industry
- Advancing the Biobased Coatings Market
- Overcoming the Misconceptions Surrounding the Biobased Industry

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2019

## DAY 1

Wednesday 13th November 2019

08:00 **REGISTRATION & COFFEE**

09:00 **CHAIR'S OPENING REMARKS**



**Huzaifa Matawala**  
Paint Recyclist

09:15 **CONFERENCE PRESENTATION**  
**Engineering Cellulose to Make a Wonder Material for Biobased Coatings**

- The structure, property & functionality of Valida fibrillated cellulose
- Valida's superior rheological properties improve the anti-sagging & storage stability of coatings
- Valida boosts the opacity performance of TiO<sub>2</sub> and facilitates the cost reduction
- Valida offers a possibility of reducing carbon footprint by replacing traditional binders & fillers with natural cellulose



**Qi Wang**  
Manager, Technology Platform Development  
**Sappi North America**

10:00 **CONFERENCE PRESENTATION**  
**Regulations & Policy Framing the Coatings Industry**

- REACH & TSCA regulations and the effects they have on the coatings industry
- Revolutionising the coatings industry: Working towards improved sustainability through regulation

**Heidi McAuliffe**  
Vice President, Government Affairs  
**American Coatings Association**

10:45 **MORNING REFRESHMENTS SPONSORED BY**  
 **ALBERDINGK BOLEY**

11:15 **CONFERENCE PRESENTATION**  
**Biobased cellulose esters for improved performance in release coatings**

- Eastman cellulose ester as a sustainable, biobased polymer
- Fundamental structure-process-property relationship guided reformulation to achieve superior release coating performance
- Controlling cellulose ester composition and tailoring solvent package to enhance the compatibility of co-resins and reduce coating tackiness which results in improved release coating performance

**Yichen Amy Fang**  
Advanced Application Scientist  
**Eastman Chemical Company**

12:00 **CONFERENCE PRESENTATION**  
**Biobased Building Blocks for High Performance Green Coating Technologies**

- Opportunities, challenges and approaches to biobased high performance coatings
- Case study 1: Biobased building blocks for green wood stains
- Case study 2: Platform biobased building blocks for high performance coating resins
- Outlook to the near future



**Zhigang Chen**  
Technical Director  
**Ingevity**

12:45 **LUNCH**

13:45 **CONFERENCE PRESENTATION**  
**Plant-Based Renewable Latexes for Coatings Applications**

- Synthesized range of vinyl monomers from plant/vegetable oils and polymerized in emulsion processes
- Small amounts of plant oil-based ingredients greatly plasticize and hydrophobize resulted latexes
- Crosslinking density of latex films can be adjusted by combining different oil-based monomers (unsaturation amount in the monomer)
- Fully renewable latex polymers were developed



**Andriy Voronov**  
Professor, Coatings & Polymeric Dpt.  
**North Dakota State University**

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## 14:30 CONFERENCE PRESENTATION Presentation title to be confirmed

**Alamgir Karim**

Director, Materials Engineering Program,  
Department of Chemical & Biomolecular  
Engineering  
**University of Houston**

## 15:15 AFTERNOON REFRESHMENTS

### CONFERENCE SESSION

#### Recognising the Technology within the Biological Coatings Market and its Potential

## 15:45 New Technology for Converting Solvent-based Alkyds to Water-based Emulsions

- It appears that this technology provides a simple process for the conversion of existing solventborne alkyds to waterborne products with low or no VOC
- The use of reactive surfactants improves coating water repellency, water resistance, adhesion, hardness, and gloss over non-reactive surfactant emulsions.
- No negatives in performance were noted with the reactive surfactants used



**Charles Palmer**  
Technical Vice President  
**Ethox Chemicals**

## 16:15 Microfibrillated cellulose - novel biobased performance additive for waterborne formulations

- Building the market for a novel biobased product (Exilva) – from an idea to a commercial scale production
- Life cycle assessment (LCA) of microfibrillated cellulose
- Physical fibril network providing unique rheological and mechanical properties
- Performance improvements on coatings with microfibrillated cellulose – power of the multifunctional additive



**Otto Soidinsalo**  
Technical Application Manager  
**Borregaard**

## 16:45 Presentation Title TBC



**Terri Carson**  
Technical Director  
**Alberdingk Boley**

## 17:15 Panel Q&A

## 17:35 CLOSE OF DAY ONE

## DAY 2

Thursday 14th November 2019

## 08:30 REGISTRATION & COFFEE

## 09:00 CHAIR'S OPENING REMARKS



**Huzaifa Matawala**  
Paint Recyclist

## 09:05 CONFERENCE PRESENTATION Polyamide 11: The Most Widely Used Bio-Based High-Performance Powder Coating

- How the market for bio-based materials has evolved over the 70 years that we have been selling this material
- How our bio-based coating compares to oil-based powder coating alternatives
- What markets and applications we serve with this powder coating



**Robert Kaminsky**  
Technical Service Engineer  
**Arkema**

## 09:50 CONFERENCE PRESENTATION Overcoming Drying Limitations of Aqueous PHA Coating with Photonic Energy

- Potential Markets and Use of Aqueous PHA Coatings in Food Packaging
- Comparison of Photonic and Oven Cured PHA Coated Papers
- Comparison of Aqueous Biobased and Synthetic Coating Barrier Properties



**Margaret Kehoe**  
Director of New Product  
Innovation  
**SNP Inc.**

## 10:35 MORNING REFRESHMENTS



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## 11:05 CONFERENCE PRESENTATION

### Maximum Sustainability

- Revolutionary work on the reformulating of coatings
- Reusability of maximum items, preventing them from going to waste streams
- Savings in disposal costs with environmentally sustainable methods
- Opening avenues to industries, helping them collaborate and maximise sustainability



**Huzaiifa Matawala**  
Paint Recyclist

## 11:50 CONFERENCE PRESENTATION



**Ramani Narayan**  
Distinguished Professor  
Michigan State University

## 12:35 LUNCH

## 13:35 CONFERENCE SESSION

### Advancing the Biobased Coatings Market

- Using product development and innovation to boost commercialisation of architectural, industrial and special purpose coatings
- Incorporating biobased feedstocks as a component of high performance coatings
- How to achieve ideal performance, cost and sustainability of biobased coatings
- Tackling the production cycle time to encourage the advance towards sustainability

**Lloyd Nelson**

Technical Director, Performance Chemicals  
**Kraton**

**Ryan Toomey**

Professor, Department of Chemical  
and Biomedical Engineering  
**University of South Florida**

## 14:50 CHAIR'S CLOSING REMARKS



**Huzaiifa Matawala**  
Paint Recyclist

## 15:00 END OF CONFERENCE & AFTERNOON REFRESHMENTS