

## New Workshop Series from Pinfa-NA Non-Halogen Flame Retardant (NHFR) Formulator's Workshop

With our specialized workshop series, Pinfa-NA offers insight and knowledge to help with formulating materials for fire safety.



This workshop series provides detailed instruction in Flame Retardant Basics and FR Test Videos, Thermoplastics, TPEs, Thermosets, new non-hal FRs

### June 2021

June 1 • June 8 • June 15 • June 21



FLAME RETARDANTS



FORMULATION DESIGN



REGULATORY



EXPERIENCED TEACHERS



NEW DEVELOPMENTS



SUSTAINABILITY

### Key Features

- ▶ Led by Instructors with Decades of Industrial Experience in Formulating & Compounding
- ▶ Interact with Experienced Professionals in the Commercialization of NHFR Technologies
- ▶ Overview of the Regulatory Environment and the Need for FRs
- ▶ Learn About Flame Retardant Mechanisms, Ingredients and Testing
- ▶ Understand How Formulators Design Systems to Meet Application Needs
- ▶ View Actual Flammability Test Videos and Discuss What They are Measuring
- ▶ Get Insight into New NHFR Technology Developments
- ▶ Learn How Sustainability is Affecting NHFR Technology
- ▶ Co-sponsored with SPE
- ▶ Flexible - Attend any or all Four Webinars

#### WEBINAR ONE: FR Basics & Test Videos, Tuesday, June 1, 2021 (9:00 am to 12:30 pm EDT)

- ▶ The Case for Flame Retardants/PINFA
- ▶ Regulatory Overview
- ▶ Fire Safety
- ▶ Fire Retardancy of Materials and FR Mechanisms
- ▶ Behavior of Materials in a Fire
- ▶ Videos of the Most Pertinent Flammability Tests for Formulators

#### WEBINAR TWO: NHFR Thermoplastics, Tuesday, June 8, 2021 (9:00 am to 12:30 pm EDT)

- ▶ NHFR Selection Criteria
- ▶ Approach to Formulating with NHFRs
- ▶ Non-Halogen Flame Retardant Chemistries
- ▶ Specific NHFRs for Thermoplastics, including Case Studies

#### WEBINAR THREE: Formulating FR TPEs and Thermosets, Tuesday, June 15, 2021 (9:00 am to 12:30 pm EDT)

- ▶ NHFR Elastomers
- ▶ NHFR Thermosets
- ▶ NHFR Textiles, Coatings, Adhesives & Sealants

#### WEBINAR FOUR: Emerging NHFRs, Monday, June 21, 2021 (9:00 am to 12:30 pm EDT)

- ▶ New Developments in NHFR Technology: Organic Radical Generators, Bio NHFR, etc.
- ▶ Formulating for Sustainability
- ▶ Forces Affecting NHFR Development

To Register:

<https://www.4spe.org/i4a/pages/index.cfm?pageid=6482>

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# Presenters

The following are the list of speakers and companies participating in the program:

Presenters	Panelists	Title
<b>WEBINAR 1</b>		
Dr. Jian (James) Zhou, Avient Tim Reilly, Clariant	Dr. Jian (James) Zhou, Avient	Senior R&D Scientist
	Tim Reilly, Clariant	Chairman, Pinfa-NA
	Steve Scherrer, Lanxess	Director, Product Advocacy, North America
	Dr. Alex Morgan, UDRI	Group Leader, Energy & Environmental Sciences
<b>WEBINAR 2</b>		
Roger Avakian, Avakian PolyChem Consulting LLC	Subra Narayan, Ph.D., Clariant	Technical & Business Development Manager at Clariant Plastics & Coatings
	Maggie Baumann, FRX Polymers	Market advisor and NA business Manager, FRX Polymers, Inc./ Pinfa-NA Vice Chair
	Dr.Christopher Simpson, Lanxess	Head of Application Technology AMERICAS, Business Unit Polymer Additives
	Dr. Reiner Sauerwein, Nabaltec	Head of Division, R&D/Technical Service
	David Temples, Huber	Technical Service Manager
	Paul Hardy, Amfine	NA Sales and Marketing Manager and Flame Retardant Product Line Manager
	Dr. Kelvin Shen, U.S. Borax	Consultant
	Dr. Sebastian Harms, Budenheim	Technical Sales Manager
<b>WEBINAR 3</b>		
Roger Avakian, Avakian PolyChem Consulting LLC	Subra Narayan, Ph.D., Clariant	Technical & Business Development Manager at Clariant Plastics & Coatings
	Maggie Baumann, FRX Polymers	Market Advisor and NA business Manager, Pinfa-NA Vice Chair
	Dr. Heiko Tebbe, Lanxess Europe	Head of Application Technology, EMEA
	Dr. Reiner Sauerwein, Nabaltec	Head of Division, R&D/Technical Service
	David Temples, Huber	Technical Service Manager
	Paul Hardy, Amfine	NA Sales and Marketing Manager and Flame Retardant Product Line Manager
	Dr. Kelvin Shen, U.S. Borax	Consultant
	Dr. Sebastian Moschel, Budenheim	Manager Innovation and Application Development
<b>WEBINAR 4</b>		
Roger Avakian, Avakian PolyChem Consulting LLC	Dr. Bob Howell, Central Michigan University	Professor Emeritus, Chemistry/Polymer Science
	Dr. Gary Wnek, Case Western Reserve University	Professor and Chair, Macromolecular Science and Engineering, Joseph F. Toot, Jr., Professor of Engineering
	Dr. Rudolf Pfaendner, Fraunhofer Institute	Professor Dr. Rudolf Pfaendner, Division Director, Plastics, Fraunhofer Institute for Structural Durability and System Reliability, Germany
	Dr. Sergei Levchik, ICL	R&D Director, ICL-IP America

### Contact:

Pinfa North America

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