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Workshop: Design for Fire Safety in Greener Electronics

APRIL 30 - MAY 1, 2019

Dolce Hayes Mansion, San Jose, California



PROGRAM

Day one will cover fire science, chemistry, materials and testing. The second day will feature presentations & panel discussions on the following topics:

- Technology trends
- Emerging FR Regts. in electrical electronic applications
- Additional performance & testing requirements
- Trends toward renewable, sustainable materials
- Components producers & their challenges to meet the emerging requirements

Featured Speakers:

Alex Morgan, PhD - University of Dayton Research Institute (UDRI)

Kelvin Shen, PhD, FR Chemistry- Rio Tinto Minerals **Tom Fabian** – Underwriters Laboratories (UL)/IEEE

Roger Tietze - PART Consulting

Karen Mathews, Ph.D., MBA, Corning

Dylan J. Boday, Ph.D., IBM

Jason Ord, Hewlett-Packard

Mark Frimann, Texas Instruments

Adrian Beard, PhD, Clariant Germany, Pinfa-EU Lauren Heine, Ph.D., Northwest Green Chemistry Daphne Molin, The California Department of Toxic

Substances Control (CA DSTDC)

Ralph Buoniconti, SABIC

Doug Sober, Essex Technologies

Randy Johnson, Solvay

ABOUT THE 2-DAY WORKSHOP:

Phosphorus, Inorganic and Nitrogen Flame Retardants North America, Inc., (Pinfa-NA), SAMPE and SPE are co-sponsoring this event. This informative workshop will offer important insights into trends in the choice of flame retardants and materials in the development and manufacturing of greener electronics.

Join your colleagues from the electrical and electronics industry supply chain as you hear experts in the field discuss trends in greener electronics and fire safety. This conference will include panel discussions on these topics.

Topics include:

- ▶ Fire Retardants Technologies
- Test Methods
- Environmental and Regulatory Updates
- Advanced Manufacturing
- Materials Technologies

WHO SHOULD ATTEND: Designers & developers of electrical/ electronic components & systems, materials suppliers, additives suppliers, processors, OEMs & product development personnel

REGISTRATION FEE: \$650.00

For up to date details on conference, please visit www.pinfa-na.org or email dwagner@pinfa-na.org



CONFERENCE PROGRAM

DAY #1 – (Tuesday, April 30) / Room - Guadalupe		
TIME	PROGRAM / TOPIC	SPEAKER / AFFILIATION
1:00 PM	Moderator	Roger Avakian (Pinfa-NA / PolyOne Corp.)
		Alexander Morgan, Ph.D.
1:15 PM	"FR Basics - Materials and Testing"	(University of Dayton Research Institute)
2:45 PM	"Flame Retardant Options for E/E Applications"	Kelvin Shen, Ph.D. (Consultant-Flame Retardants)
3:30 PM	AFTERNOON BREAK	
		Tom Fabian, Ph.D.
3:45 PM	"FR Testing and Certification"	(Underwriters Laboratories / IEEE)
4:30 PM	"Formulating Thermoset Composites"	Randy Johnson (Solvay)
5:00 PM	TBD	Roger Tietze (PART Consulting)
5:30 PM	Panel Discussion	All Speakers
6:00 PM	RECEPTION – ORLO'S RESTAURANT	

TIME	Vednesday, May 1) / Room - Guadalupe PROGRAM / TOPIC	SPEAKER / AFFILIATION
		SPEAKER / AFFILIATION
8:00 AM	Coffee/Networking	
8:30 AM	Morning Moderator	Bob Weiler (Pinfa-NA / Amfine Chemical) Tim Reilly
8:35 AM	Welcome/Opening Remarks from Pinfa-NA	(Pinfa-NA / Clariant Plastics & Coatings USA Inc.)
8:40 AM	Welcome/Opening Remarks from SAMPE Keynote Presentation: "An introduction to IoT & its	Scott Beckwith, Ph.D. (SAMPE)
8:45 AM	Impact on Society"	Karen Matthews, Ph.D., MBA (Corning)
9:30 AM	Keynote Presentation: "How AI Solutions are Disrupting Everything in the World including Materials Design"	Dylan J. Boday, Ph.D. (IBM)
10:15 AM	MORNING BREAK	Dylan ji Doddy, i mbi (1511.)
10.10 1111	"The Need by the IT Industry for Flame Retardant	
10:30 AM	GreenScreen® For Safer Chemicals Information"	Jason Ord (Hewlett-Packard)
11:00 AM	"Safer Electronics Materials"	Mark Frimann (Texas Instruments)
11:30 AM	"Alternatives Assessment for Safer Materials"	Lauren Heine, Ph.D. (MaterialWise and Northwest Green Chemistry) Daphne Molin
12:00 PM	"State of California Safer Consumer Products Program"	(The California Dept. of Toxic Substances Control)
12:30 PM	LUNCH – SILVERCREEK RESTAURANT	,
1:30 PM	Afternoon Moderator	Keith Sorrell (Pinfa-NA / Huber Engineered Materials)
2:00 PM	"FRs Global Legislation Update and PINFA Recycle" "FR Technology & Fire Test Requirements for E&E	Adrian Beard, Ph.D. (Pinfa-EU/Clariant Plastics & Coatings Germany) Alexander Morgan, Ph.D.
2:30 PM	Industry"	(University of Dayton Research Institute)
3:00 PM	"Plastics in Green Electronics: Material Dev. for New Environmental Standards-Current State & Trends"	Ralph Buoniconti (SABIC IP)
3:30 PM	AFTERNOON BREAK	
3:45 PM	"Lithium Ion Batteries and Fire Safety" (TBD)	Tom Fabian, Ph.D. (Underwriters Laboratories / IEEE)
4:15 PM	"Non-Hal CCL for Circuit Boards"	Doug Sober (Essex Technologies)
	Panel Discussion Moderator	Maggie Baumann (Pinfa-NA / FRX Polymers)
4:45 PM	Panel Discussion	All Speakers
5:15 PM	Wrap Up / Closing Remarks	Kerry Smith (Pinfa-NA / Nabaltec)
5:30 PM	END OF CONFERENCE	