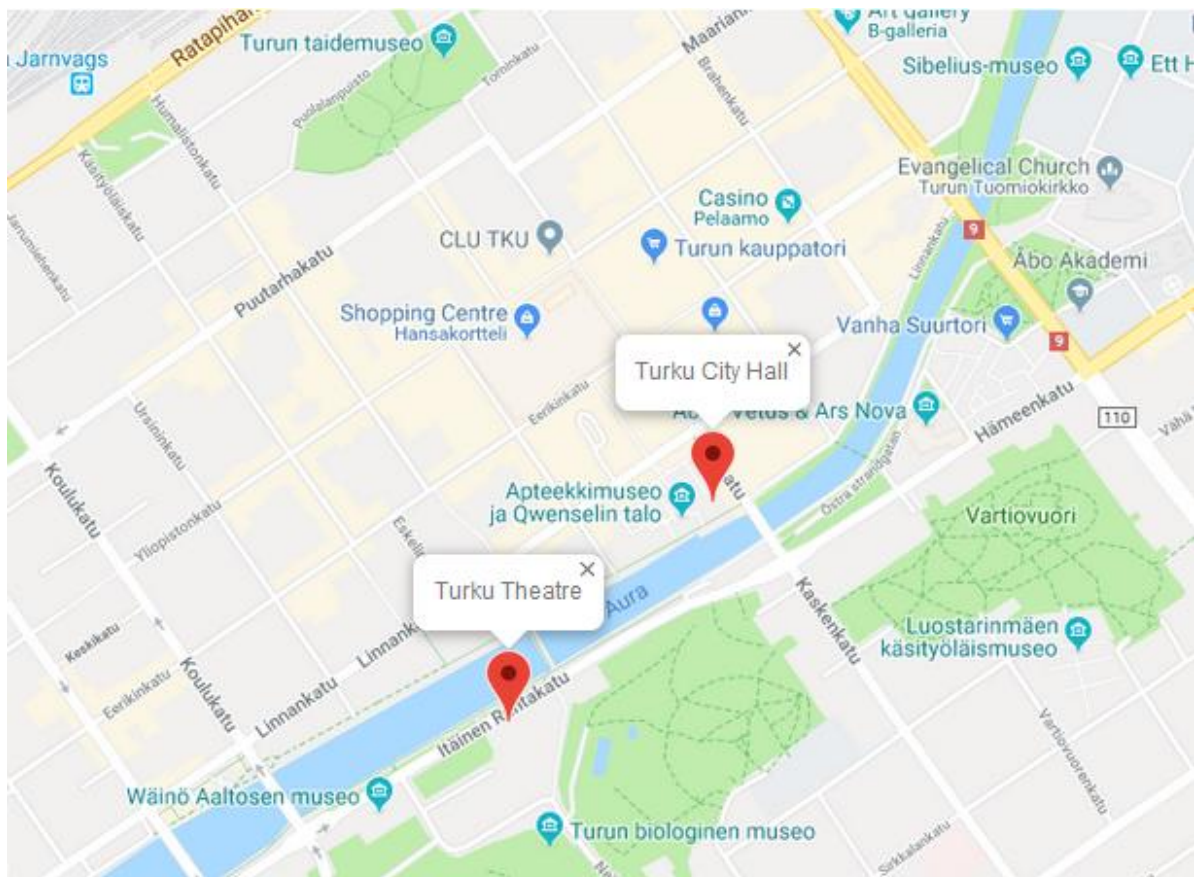


FRPM19 CONFERENCE PROGRAMME

TUESDAY 25.6.2019

Time	Agenda	Location
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18:00 – 19:30	Reception and registration	Turku City Hall, Aurakatu 2
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WEDNESDAY – FRIDAY 26 – 28.6.2019

Time	Agenda	Location
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08:00 –	Registration	Turku City Theatre, Itäinen Rantakatu 14
08:30 –	Conference	Turku City Theatre, Itäinen Rantakatu 14

WEDNESDAY 26.6.2019

Time	Agenda	Speaker
08:30 – 08:45	Welcome	C.-E. Wilén
	Session 1	Theme: Understanding flame retardant mechanism and optimized formulations Session Chairs: Professor Serge Bourbigot and Dr. Andrea Toldy
08:45 – 09:15	Plenary PL1	B. Schartel: Understanding flame retardant modes of action: A wellspring for evidence-based development
09:15 – 09:35	K1	N. Esmaeili: On the differing mechanisms of action of the flame-retardant synergists zinc stannate and antimony trioxide in combination with poly(pentabromobenzyl acrylate) in polyamide 6,6
09:35 – 09:55	K2	G. Fontaine: Understanding the thermal degradation and fire behavior of high performance polymers
09:55 – 10:15	K3	M. Zammarano: Reduced-scale tests to assess the effect of fire barriers on the combustion behavior of core flammable materials: An upholstery-material composites case study
10:15 – 10:45	Coffee	Sponsor exhibition
	Session 2	Theme: New phosphorous chemistry and 40 years of DOPO chemistry Session Chairs: Professor Yuan Hu and M.Sc. Louise C. Speitel
10:45 – 11:05	Poster Pitch	One minute poster introductions, Group I
11:05 – 11:35	Plenary PL2	M. Döring: Phosphorus based flame retardancy with special emphasis on 40 years of DOPO chemistry
11:35 – 11:55	K4	S. Gaan: Challenges of commercializing new phosphorus flame retardants: Academic Perspective
11:55 – 12:15	K5	A. Morgan: Phosphorus hydrazides as flame retardants for epoxies
12:15 – 12:35	K6	M. Nazir: Alkyl sulfone bridged phosphorous flame retardants for polypropylene and flexible polyurethane foams
12:35 – 13:15	Lunch	Sponsor exhibition

Time	Agenda	Speaker
	Session 3	Theme: Chemical and fire safety Session Chairs: Professor Richard T. Hull and professor De-Yi Wang
13:15 – 13:45	Plenary PL3A	S. Hollins: EU Risk management: early warnings and substitution in REACH and CLP
13:45 – 14:15	Plenary PL3B	B. Kandola: Recent progress on fire safety of carbon/glass fibre reinforced polymer composites
14:15 – 14:35	K7	C. Rawas: Flame retardants in furniture: The Eniflamme research project (2018-2020) – Evaluation of emissions due to exposition of flame retardant upholstered furniture and bedding
14:35 – 15:00	Coffee	Sponsor exhibition
15:00 – 15:20	Poster Pitch	One minute poster introductions, Group 2
	Session 4	Theme: Fire retardant demands for industrial applications Session Chairs: Professor Jaime Grunlan and professor Gaelle Fontaine
15:20 – 15:50	Plenary PL4	S. Bourbigot: 3D printing and fire retardancy: Conventional way or new opportunities?
15:50 – 16:10	K8	R. Kraemer: On the role of material properties in the ignition of polymers by small flames
16:10 – 16:30	K9	M. Batistella: Selective laser sintering of polyamide 12/flame retardant compositions
16:30 – 16:50	K10	X. Lin: Weathering resistance of halogen-free flame retardance in E&E polymeric materials
16:50 – 17:10	K11	P. Moio: Managing fire safety on a Newbuilding based on facts and not on assumptions
17:10 – 17:45	Poster Session	
17:45 – 18:00	Break	
18:00 – 21:00	Meyer Turku Oy Excursion	Bus transportation from Hotel Marina Palace, Linnankatu 32

THURSDAY 27.6.2019

Time	Agenda	Speaker
	Session 5	Theme: Design of innovative fire retardants Session Chairs: Dr. Jurgen Troitzsch and Dr. Sabyasachi Gaan
08:30 – 09:00	Plenary PL5	Y. Hu: Polyphosphazene based multiple nanostructures: A novel strategy for enhancing the flame retardancy and toxicity suppression of polymeric materials
09:00 – 09:20	K12	T. Tirri: Refining sulfenamide radical generators for different polymer compositions
09:20 – 09:40	K13	J. Lenz: Novel phosphonates as flame retardants for polymers
09:40 – 10:00	K14	X. Wang: Synthesis of cardanol derived flame retardants and their application in epoxy composites
10:00 – 10:20	K15	J. Vasiljević: Flame retardant effectiveness of nanodispersed organophosphorus-derivative in polyamide 6 textile filament yarns
10:20 – 10:45	Coffee	Sponsor Exhibition
	Session 6	Theme: Fireproofing of coatings Session Chairs: Professor Yu-Zhong Wang and Dr. Mélanie Aubert
10:45 – 11:15	Plenary PL6	J. Grunlan: Water-based, self-extinguishing nano-coatings for the protection of plastics
11:15 – 11:35	K16	F. Carosio: Controlling the reaction and resistance to fire of polyurethane foams by single step deposition of nanostructured coatings
11:35 – 11:55	K17	S. Duquesne: Design of flame retardant self-stratifying coatings for plastics
11:55 – 12:15	K18	A.-L. Davesne: Thin infrared-reflective coatings to enhance the fire performance of polymers
12:15 – 13:10	Lunch	Sponsor exhibition

Session 7		
Theme: Composite materials Session Chairs: Dr. Richard Lyon and Dr. Mauro Zammarano		
13:10 – 13:30	Poster Pitch	One minute poster introductions, Group 3
13:30 – 14:00	Plenary PL7	Y.-Z. Wang: Efficient strategies for improving flame retardancy of fiber-reinforced polymer composites
14:00 – 14:20	K19	A. Toldy: The effect of manufacturing technologies on the flame retardancy of carbon fibre reinforced epoxy resin composites
14:20 – 14:40	K20	D.-Y. Wang: Nano-hybrid as Nano flame retardant to polymers: Opportunities and challenges
14:40 – 15:00	K21	L. Greiner: Tailor-made phosphorus containing flame retardants for carbon fiber reinforced epoxy resin composites preventing the formation of respirable fiber fragments
15:00 – 15:20	Coffee	Sponsor exhibition
Session 8		
Theme: Modelling of combustion and fire chemistry Session Chairs: Priv. Doz. Dr. habil. Bernhard Schartel and Dr. Alexander Morgan		
15:20 – 15:40	Poster Pitch	One minute poster introductions, Group 4
15:40 – 16:10	Plenary PL8	R. Lyon: The thermochemistry of flaming combustion of solids
16:10 – 16:30	K22	J. Swann: Characterization of pyrolysis and combustion of polycarbonate using two-dimensional modelling: An application to relate thermal transport and the physical structure of the intumescent char
16:30 – 16:50	K23	L. Speitel: Effect of fuel/oxygen ratio and combustion temperature on polymer combustion products measured in the microscale combustion calorimeter
16:50 – 17:10	K24	Y. Ding: Flammability model development for a polymeric material containing multiple reactive flame retardants: Relationship between material composition and heat release rate
17:10 – 17:45	Poster Session	
19:00 –	Dinner	Dinner at the Turku Castle, Linnankatu 80

FRIDAY 28.6.2019

Time	Agenda	Speaker
	Session 9	Theme: Bio-derived flame retardants Session Chairs: Professor Baljinder Kandola Professor Sophie Duquesne
08:30 – 09:00	Plenary PL9	G. Marosi: Flame retardancy of bio-based polymers and recyclable composites
09:00 – 09:20	K25	Y. Liu: The effect of alginate fibers on the flame retardancy of cotton/alginate blended fabrics
09:20 – 09:40	K26	R. Mosurkal: Bio-based flame retardant coating for nylon-cotton fabric utilizing synergistic effect of tannic acid and phytic acid
09:40 – 10:00	K27	L. Ferry: Biophenolic compounds from chestnut as flame retardant in epoxy resin
10:00 – 10:20	K28	S. Zhang: Recent advancement on the application of chitosan derivatives in flame retardant polyurethane composites
10:20 – 10:45	Coffee	Sponsor Exhibition
	Session 10	Theme: Fire retardants for construction and wood products Session Chairs: Professor György Marosi and Professor Carl-Eric Wilen
10:45 – 11:15	Plenary PL10	R. Hull: Fire Safety of Timber Façades
11:15 – 11:35	K29	G. Labat: New bio-based fire retardant for wood-based insulation boards
11:35 – 11:55	K30	G. Peck: Flammability and Smoke Toxicity of Modern Building Façades
11:55 – 12:15	K31	M. Beach: Assessing the stability of Bluedge Flame retardant in polystyrene foams
12:15 – 13:00	Lunch	Sponsor exhibition

	Session 11	Theme: Flame retardants in a circular economy Session Chairs: Professor Manfred Döring and Dr. Ravi Mosurkal
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13:00 – 13:30	Plenary PL11	J. Troitzsch: Circular Economy and Flame Retardants. Challenges and Opportunities
13:30 – 13:50	K32	L. Tange: Creating a circular economy for bromine-containing, flame retardant plastics by the use of innovative and sustainable recycling technologies
13:50 – 14:10	K33	B. Weclawski: Sustainable Flame Retardant Application to Nylon Textiles by Novel Atmospheric Plasma Surface Activation
14:10 – 14:30	K34	E. Metzsch-Zilligen: Halogen-free flame retarded plastics: A demanding challenge in recyclability?
14:30 – 14:50	K35	S. Eibl: Chemical analysis for failure analysis related to flame retardants
14:50 – 15:00	Final Remarks	End of conference

