

Tentative conference program

Monday, 26.06.2023

Time	Agenda	Location
17:00-19:00	Registration	Empa, NEST
18:30-21:00	Welcome reception	Empa, NEST



Tuesday-Thursday 26.06.-29.06.2023

Time	Agenda	Location
8:00-	Registration	Empa, Akademie
8:15-	Conference	Empa, Akademie

Tuesday 27.06.2023 at Akademie

Time	Agenda	Speaker
8:15-8:40	Welcome	Prof Dr. Tanja Zimmermann
		Dr. Sabyasachi Gaan
Session 1	Торіс:	Chair:
	1 Sustainability in Flame Retardant	Prof. Dr. Andrea Toldy
	Materials (FRs in European Green Deal)	Prof. Dr. De-Yi Wang
8:40-9:10	PL1 Plenary	Tournilhac, Francois Genès: Epoxy based
		vitrimer materials and composites
9:10-9:35	K1 Keynote	Kandola, Baljinder: Fully bio-based versus
		carbon/glass epoxy composites: scope and
		limitations in fire and physico-mechanical
		performances
9:35-9:55	O1 Oral	Beard, Adrian: Increasing Sustainability and
		Performance Requirements – what is the
		future for Phosphorus-based Flame
		Retardants?
9:55-10:15	Poster session 1	
10:15-10:45	Coffee	Sponsor exhibition
Session 2	Торіс:	Chair:
	2 New Developments in Flame Retardants	Prof. Dr. Sophie Duquesne
	(chemistry, application, synergism)	Prof. Dr. Sheng Zhang
10:45-11:15	(chemistry, application, synergism) PL2 Plenary	Prof. Dr. Sheng Zhang Wang, Hao: Development of biobased and
10:45-11:15	(chemistry, application, synergism) PL2 Plenary	Prof. Dr. Sheng ZhangWang, Hao: Development of biobased and nanoscale flame retardants
10:45-11:15 11:15-11:40	(chemistry, application, synergism) PL2 Plenary K2 Keynote	Prof. Dr. Sheng ZhangWang, Hao: Development of biobased and nanoscale flame retardantsBifulco, Aurelio: Aliphatic silica-epoxy
10:45-11:15 11:15-11:40	(chemistry, application, synergism) PL2 Plenary K2 Keynote	Prof. Dr. Sheng ZhangWang, Hao: Development of biobased and nanoscale flame retardantsBifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame
10:45-11:15 11:15-11:40	(chemistry, application, synergism) PL2 Plenary K2 Keynote	Prof. Dr. Sheng ZhangWang, Hao: Development of biobased and nanoscale flame retardantsBifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame retardants, bio-wastes, and other
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10:45-11:15 11:15-11:40 11:40-12:00	(chemistry, application, synergism) PL2 Plenary K2 Keynote O2 Oral	 Prof. Dr. Sheng Zhang Wang, Hao: Development of biobased and nanoscale flame retardants Bifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame retardants, bio-wastes, and other synergists Wilen, Carl-Eric: Next Generation of Badical
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10:45-11:15 11:15-11:40 11:40-12:00	(chemistry, application, synergism) PL2 Plenary K2 Keynote O2 Oral	 Prof. Dr. Sheng Zhang Wang, Hao: Development of biobased and nanoscale flame retardants Bifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame retardants, bio-wastes, and other synergists Wilen, Carl-Eric: Next Generation of Radical Generators
10:45-11:15 11:15-11:40 11:40-12:00 12:00-12:20	(chemistry, application, synergism) PL2 Plenary K2 Keynote O2 Oral O3 Oral	 Prof. Dr. Sheng Zhang Wang, Hao: Development of biobased and nanoscale flame retardants Bifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame retardants, bio-wastes, and other synergists Wilen, Carl-Eric: Next Generation of Radical Generators Ciesielski, Michael: Novel Phosphorus-
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10:45-11:15 11:15-11:40 11:40-12:00 12:00-12:20 12:20-12:40	(chemistry, application, synergism) PL2 Plenary K2 Keynote O2 Oral O3 Oral Poster session 2	Prof. Dr. Sheng ZhangWang, Hao: Development of biobased and nanoscale flame retardantsBifulco, Aurelio: Aliphatic silica-epoxy systems containing DOPO-based flame retardants, bio-wastes, and other synergistsWilen, Carl-Eric: Next Generation of Radical GeneratorsCiesielski, Michael: Novel Phosphorus- containing flame retardants based on cellulose and sugar alcohols

Session 3	Topic: Sustainability in Flame Retardant	Chair:
	Materials (FRs in European Green Deal)	Prof. Dr. Yu-Zhong Wang
		Prof. Dr. Baljinder Kandola
13:30-13:55	K3 Keynote	Schartel, Bernhard: Sustainability finding its
		way into flame retardancy: food for thought
		between fake fiction and future
13:55-14:15	O4 Oral	Lopez-Cuesta, José-Marie: Fly ash as
		engineering filler in flame retardant systems
		for biopolyesters
14:15-14:35	O5 Oral	Houlder, James: Flame retardants: a
		changing landscape
14:35-14:55	O6 Oral	Samyn, Fabienne: Synthesis by reactive
		extrusion, properties and ageing of flame
		retardant PBT vitrimers
14:55-15:05	S1 Student talk	Augé, Marie-Odile / Daniele Roncucci: Ring-
		opening polymerization of L-lactide with
		Phosphorus containing compounds
15:05-15:15	S2 Student talk	Schwind, Bertram: Synthetic papers inspired
		by wasp nest material: Flame-retardancy
		mechanism investigations and their potential
		for sustainable flame retardant materials
15:15-15:35	poster session 3	
15:35-16:05	Coffee	Sponsor exhibition
Session 4	Topic: New Developments in Flame	Chair:
	Retardants (chemistry, application,	Prof. Dr. T. Richard Hull
	synergism)	Prot. Dr. Yuan Hu
16:05-16:35	PL 3 Plenary	Wang, Xin: Cardanol as a versatile building
		block for fabrication of bio-based flame
16.25 17.00	KA Kourata	Pering Manfred: The Detential of
10:35-17:00	K4 Keynote	Doring, Manfred: The Potential of Phosphorus Containing Flame Potendants for
17.00-17.20	07 Oral	Vahahi Henri: Coffee biowastes as
17.00-17.20		sustainable flame retardants for polymers
17:10-17:20	S3 Student talk	Sekar, Arvindh: Introduction of an Organic
		Fighte Relatuant with High Phosphorous
		Content in Onsaturated Polyester Resins
17:20-17:40	S4 Student talk	Mountassir, Amira: Polymerizable
17:20-17:40	S4 Student talk	Mountassir, Amira: Polymerizable sulfenamide as an effective flame retardant
17:20-17:40	S4 Student talk	Mountassir, Amira: Polymerizable sulfenamide as an effective flame retardant for polystyrene
17:20-17:40 17:40-18:00	S4 Student talk poster session 4	Mountassir, Amira: Polymerizable sulfenamide as an effective flame retardant for polystyrene

Poster list

The poster exhibition will take place after the last pitch session from 18:00 - 20:00 on 27.06.2023.

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P1	Ali, Wael	Polarity adapted silanization of functional materials for flame retardant polymer additives
P2	Andruschko, Mateusz	Halogen-free styrenic terpolymers with self-extinguishing properties
P3	Ao, Xiang	Bilayer coating with coupled intumescent and creamification effects toward high fire safety and fire structural survivability of fiber-reinforced polymer composites
P4	Augé, Marie-Odile	Improvement of pla fire properties with autopolymerizable additives
Р5	Bader, Miriam	Commercial and biobased halogen-free flame retardants for thin polyurethane materials used for textile coatings
P6	Beduini, Alessandro	Polyamidoamines derived from natural α -aminoacids as effective flame retardants for cotton
P7	Berner, Valeria	Epoxy vitrimers – thermal behavior and flame-retardant properties
P8	Bocz, Katalin	Useful tricks with biobased flame retardants
P9	Chen, Jiuke	Mechanical Recycling of PET Fibers containing Phosphorus Flame Retardants
P10	Chen, Si	Flame Retardant and Transparent Polymethylmethacrylate Composites Based on Phosphorus-nitrogen Flame Retardants
P11	Cui, Xinyu	Ultra washing durable flame retardant coating for cotton fabric by the covalent bonding and interface polymerization
P12	Danielsiek, Dominic	Smoke suppressant flame retardants for natural fibre reinforced composites
P13	Decsov, Kata	Development of an alginate-based additive for flame retardancy of polylactic acid
P14	Dedey, Kossigan Bernhard	One-dimensional transient pyrolysis model for intumescent fire retardant polymers usage in Electric Vehicle battery pack applications: validation with fire-retarded polycarbonate
P15	Driever, Thomas	Combination of ionic liquids and phosphorus-containing flame retardants for carbonate-based battery electrolytes
P16	Flerlage, Hannah	Safe and sustainable by design: redesining flame retardants using a coputer-aided framework
P17	Fu, Aixiao	Intumescent alkali silicate and geopolymer coatings against hydrocarbon fires
P18	Gere, Dániel	Development of HDPE cap waste for flame retarded outdoor products

Pitch session 1 (27.06.2023, 09:55-10:15)

Pitch Session 2 (27.06.2023, 12:20-12:40)

P19	Getterle, Christoffer	A novel flame retardant based on cellulose and sugar alcohols
P20	Ghonjizadehsamani, Farnaz	Effects of combining cork powder and app in the mechanical and flammability behavior of abs
P21	Goedderz, Daniela	Combination of optical diagnostics and pyrolysis fragment analysis to investigate flame retardant mode of actions
P22	Goller, Sebastian	How reactions between smoke suppressants in flame retardant polyamide 6.6 (PA66) change the burning behavior and smoke emission.
P23	Großhauser, Michael	Influence of bentonite properties on weathering resistance in flame retardant cable materials
P24	Gu, Weiwen	Insight research on the thermal degradation mechanism of PET
P25	Gu, Xiaoyu	Constructing cross-functional intumescent flame retardants with UV resistance for polypropylene
P26	Handlovicova, Katarina	The assessment of the smoke toxicity of furniture fabrics and fillings
P27	Helmbrecht, Alexander	Modified cottonid as a fire retardant layer
P28	Höhne, Carl-Christoph	New approach for electric vehicle composite battery housings: Electromagnetic shielding and flame retardancy of PUR/UP-based sheet moulding compound
P29	Jankowski, Piotr	Rigid polyurethane foams with limited flammability
P30	Kaptlan, Matay	Profound characterization of novel phosphorus-containing flame retardants based on cellulose and sugar alcohols
P31	Kovács, Zsófia	Flame retardant in-mould coatings for e-caprolactam-based polyamide 6 fibre- reinforced composites
P32	Lane, Jacob	Effect of Different Fire-Retardant Mechanisms on Fire and Smoke Behavior of Upholstered Furniture
P33	Langhansl, Matthias	Biorenewable polyelectrolyte nanocoating for flame-retardant cotton-based paper
P34	Li, Xiaolu	Highly-sensitive fire alarm system based on cellulose paper with low-temperature response and wireless signal conversion
P35	Ma, Meng	Achieving high flame retardancy and high transparency Polycarbonate based on low addition of linear polysiloxane borane

Pitch Session 3 (27.06.2023, 15:15-15:35)

P36	Maddalena, Lorenza	Nanocellulose based polyeletrolyte complexes as efficient flame retardant solution for textiles and open cell foams
P37	Modesti, Michele	Fire perfomances of polyisocyanurate foams with very high index
P38	Oguz, B.	Relationship between heat exposure equipment and intumescent coating performance
P39	Ojo, Caleb O.	Recycling bromine and antimony from acrylonitrile butadiene styrene (waste plastics containing brominated flame retardants).
P40	Palumbo, Valeria	Study of recyclability and flame retardancy of polyester thermosets with brönsted acid nanocatalysts
P41	Peck, Gabrielle	Novel techniques for the prediction of the fire hazard of polyisocyanurate insulation foams
P42	Peck, Gabrielle	Design, construction and validation of a simple, low-cost phi-meter
P43	Petkovska, Jovana	Sustainable egg white/lignin nanocoating for flame retardant cotton
P44	Pierrat, Sebastien	Quantitative characterization of FR dispersion by X-ray computed tomography and its influence on FR performance
P45	Pomázi, Ákos	Combined effect of solid and gas phase flame retardants in epoxy gelcoats for carbon fibre-reinforced epoxy composites
P46	Roncucci, Daniele	Novel bio-based phosphorus flame retardant for poly(lactic acid)
P47	Rozo, Maria Jauregui	Tansfer of the modes of action from polymer materials to glass-fiber-reinforced plastics: flame retardancy – fire resistance – post-fire mechanics
P48	Sántha, Péter	Fire retardant basalt fiber-reinforced polymer composites
P49	Sarazin, Johan	Laboratory-scale instrumented bench for the evaluation of fire resistant systems
P50	Shuang, Qui	A new strategy to prepare fully bio-based Poly(lactic acid) composite with high flame retardancy, long service life and rapid degradation
P51	Singh, Shraddha	Fire resistant composite materials for structural application
P52	Szolnoki, Beáta	Development of fully biobased, flame retardant epoxy coatings

Pitch Session 4 (27.06.2023, 17:40-18:00)

P53	Tamizhirai, Selvan	Thermal barrier fibrous membranes for polymeric composites
P54	Tang, Mingwei	Fire behavior and numerical simulation of facade elements for buildings
P55	Tien Nguyen, Thuy	Combined effect of phosphorous-containing compounds in flame retardance of polybutylene succinate
P56	Ulisse, Federico	Synthesis of sustainable flame retarded polypropylene by using waste material
P57	Verret, Eric	Optimization via artificial intelligence of intumescent coatings for wood substrates
P58	Vest, Natalie	Bio-sourced intumescent nanocoating [1]
P59	Vogt, Claudia	Liquid s-triazine phosphonate derivatives as flame retardants for polyurethane foams
P60	Wang, Ran	FRPdata and PYgen: benchmark database for studying polymer flame retardancy and pyrolysis products
P61	Watt, Fabian	Polymer-hybrid nanoparticles as flame retardants for transparent thermoplastics
P62	Xiao, Xiang-Xin	Low heat and smoke release polycarbonate copolymer based on synergistic char- forming effect
P63	Yang, Qi	Fire resistance of Na/K based geopolymer containing oil
P64	Zhang, Qin	High-performance flame-retardant polyamide 6 containing a novel phosphinamide group
P65	Tresiakova-McNally, Svetlana	A study of the influence of the chemical environments of P- and N-containing groups on the fire retardance of polystyrene
P66	Zhang, Xiaoyu	Thermal degradation and Flammability of LIP Cigarette Paper
P67	Zhang, Xin	Study on intrinsic flame-retardant vinyl ester resin and its composites with different diluents
P68	Zhang, Yaping	Effects of potassium nitrate and potassium citrate on pyrolysis kinetics and combustion behaviors of flue-cured tobacco
P69	Zhou, Shun	Quantitative evaluation of CO yields for the typical flue-cured tobacco under the heat-not-burn conditions using SSTF

Wednesday 28.06.2023 at Akademie

Time	Agenda	Speaker
8:10-8:35	Special talk on European Green Deal	Beekman Martijn: Chemicals strategy for
		sustainability, towards zero pollution
Session 5	Topic: New Developments in Flame	Chair:
	Retardant Coatings and Textiles (emphasis	Prof. Dr. habil. Bernhard Schartel
	on transportation, architectural and	Prof. Dr. Laurent Ferry
8.35-0.05	PL4 Plenant	Fu Teng: Programmable design on demand:
8.33-3.03		quantitative contribution of molecular motifs
		in flame-retardant thermoplastic polymers
9:05-9:25	O8 Oral	Schönberger, Frank: Mode of action of Zn-
		DOPOX and melamine polyphosphate as
		flame retardants in glass fiber-reinforced
		polyamide 66
9:25-9:45	09 Oral	Xuan, Song: An in-situ, nonintrusive
		Intermediates monitoring method for
		polymer combustion mechanism study
9.45-10:05	O10 Oral	Mayer-Gall, Thomas: Nitrogen and
		Phosphorus containing silanes as verstail
		flame retradants: not only for textiles
10:05-10:15	S5 Student talk	Zou, Bin: Thermal stability and fire safety
		black phosphorus-boron hybrid
		nanocomposites: mechanism of Phosphorus
		fixation effects and charring inspired by cell
		wall
10:15-10:45	Coffee	Sponsor exhibition
Session 6	Topic: New Developments in Flame	Chair:
	Retardant Coatings and Textiles (emphasis	Dr. Jürgen H. Troitzsch
	protective textiles)	Prof. Dr. José-Marie Lopez-Cuesta
10:45-11:15	PL5 Plenary	Grunlan, Jaime: Water-based and
		environmentally-benign flame retardant
		surface treatments for polymeric materials
11:15-11:40	K6 Keypote	Ferry, Laurent: Flame retardancy of
		engineering polymers using ionic liquids
11:40-12:00	O11 Oral	Schirp, Claudia: Phosphate-modified
		polyurethane binder polymers for
		transparent, fire-retardant wood coatings
12:00-12:20	O12 Oral	Bin, Fei: Flame retardant and transparent
		wood for building application
12:20-12:30	S6 Student talk	Khan, Fawad: Graphene oxide - modified
		Aramids as Early Fire Warning Sensors
12:30-13:20	Lunch	Sponsor exhibition

Session 7	Topic: Testing, Characterization and Modelling of Flame Retardant Materials	Chair: Prof. Dr. Jaime Grunlan
13:20-13:50	PL6 Plenary	Bourbigot, Serge: Materials in extreme fire: design, evaluation and characterization
13:50-14:15	K7 Keynote	Lyon, Richard: Thermal Analysis and Flammability
14:15-14:35	O13 Oral	Fontaine, Gaelle: Effect of oxygen concentration on the fire behavior of Cross- Laminated Timber
14:35-14:55	O14 Oral	Leventon, Isaac D.: An analysis of the functional dependence of the rate of buoyancy-driven flame spread on a solid material to pyrolysis and combustion properties
14:55-15:05	Coffee	Sponsor exhibition
Session 8	Topic: New Developments in Flame Retardants (chemistry, application, synergism)	Chair: Dr. Wenyu Klingler-Wu Prof. Dr. Aurelio Bifulco
15:05-15:30	K8 Keynote	Fuchs, Sabine: From flame retardant polystyrene foams to intrinsically flame retardant styrenic copolymers without halogens
15:30-15:50	O15 Oral	Liu, Bo-Wen: Intrinsically flame-retardant long-chain aliphatic polyamide with high mechanical property
15:50-16:00	S7 Student talk	Jie, Xu: Carbon nanohorns as a novel synergist to achieve efficient flame retardant cotton fabric – a case study
16:00-18:00	Transport by train to Uetliberg	
	Cala dinner in accessization with Clariant	At LITO Kulm

Thursday 29.09.2023 at Akademie

Time	Agenda	Speaker
Session 9.1	Topic: Testing, Characterization and	Chair:
	Modelling of Flame Retardant Materials	Prof. Dr. Federico Carosio
		Prof. Dr. Sabine Fuchs
8:10-8:35	K9 Keynote	Hu, Yuan (2): Synthesis and Application of
		Flame Retardant Organophosphine
		Compounds
8.35-8:55	O16 Oral	Raffan-Montoya, Fernando: Towards
		simultaneous characterization of flammability
		and fire toxicity of solid fuels burning at
		controlled equivalence ratios.

8:55-9:15	O17 Oral	Paul, Swaraj: Novel Analytical Toolkit for the Characterization and Development of Halogen Free Flame Retardants (HFFR) PP Formulations
9:15-9:35	O18 Oral	Lorenzetti, Alessandra: Development of sustainable flame retarded polypropylene by using predictive tools
9:35-9:45	S8 Student talk	McKenzie, Francesca: Effects of flame retardants in carbon fibre reinforced composites on the thermo-oxidative properties of carbon fibres
9:45-9.55	S9 Student talk	Lorenzetti, Jean-Valère: Cork extracts (quercus suber I.): characterization and integration in fire-retardant intumescent formulations.
09:55-10:25	Coffee	Sponsor exhibition
Session 10.1	Topic: Recycling of Flame Retardant	Chair:
	Materials	Prof. Dr. Serge Bourbigot
40.25.40.50	KAO Kananaha	Dr. Richard E. Lyon
10:25-10:50	K10 Keynote	Zhao, Hai-Bo: Recyclable and Durable Flame-
10.50 11.10		Retardant Materials
10:50-11:10	019 Oral	wu-Kiingler, wenyu: Enabling
		thermosets via reactive incorporation of
		nhosnhonate mojeties
11:10-11:30	O20 Oral	Toldy, Andrea: Flame retardancy solutions for carbon fibre–reinforced composites designed for recycling
11:30-11:50	O21 Oral	Tange, Lein: Challenges and oppertunities
		using innovative technologies for recycling
		plastics containing flame retardants
11:50-12:10	O22 Oral	Laoutid, Fouad: Recycling of brominated
		plastics from weee through solvent-free UV-
		based treatment.
12:10-12:20	S10 Student talk	Zhou, Meihui: Basalt Fiber-Based Flame
		Retardant Epoxy Composites: Preparation,
	<u> </u>	Mechanical Properties, and Flame Retardancy
12:20-13:10	Lunch	Sponsor exhibition

Thursday, 29.06.2023 at NEST (Parallel session)

Time	Agenda	Speaker
Session 9.2	Topic: Flame Retardants and the	Chair:
	Environment	Prof. Dr. Manfred Döring
		Dr. Martin Sicken
8:10-8:30	O23 Oral	Chen, Li (6): Reprocessable, degradable and
		intrinsically flame-retardant epoxy vitrimers
0.00.0.50		for carbon fiber reinforced composites
8:30-8:50	024 Oral	papercepting for flame retardant polyester
		fabric
8:50-9:15	K11 Keynote	Zhang, Sheng (2): Advances on Flame
	,	Retardant Materials for Batteries in New
		Energy Vehicles
9:15-9:35	O25 Oral	Agostinis, Lodovico: New chlorinating agents-
		free synthetic route for preparation of P-N and
		P-O dibenzooxaphosphacycles derivatives
9:35-9:55	O26 Oral	Duquesne, Sophie: Use of recycled hUips to
		develop flame retarded materials for EEE –
		what are the challenges?
9:55-10:15	O27 Oral	Batistella, Marcos (6): Towards recycling of
		fire retarded polyamide 12 for laser sintering
10:15-10:45	Coffee	Sponsor exhibition
Session 10.2	Topic: Testing, Characterization and	Chair:
	Modelling of Flame Retardant Materials	Dr. Alexander B. Morgan
		Prof. Dr. Henri Vahabi
11:45-11:05	O28 Oral	Schirp, Arne: Effectiveness of phosphinates
		and radiation crosslinking on fire-retardancy
		of unfilled and wood-filled bio-based
11.05-11.30	K12 Keynote	Chric Slootway: Sustaining the CHNORS
11.05-11.50	K12 Reynote	huilding blocks of life, but Phosphorus based
		flame retardants first
11:30-11:50	S29 Oral	Sonnier, Rodolphe: Flammability of thick but
		materials
11:50-12:00	S11 Student talk	Tabaka, Weronika: Bench-scale fire stability
		testing of carbon fibre reinforced polymer
		laminates with protective layers
12:00-12:10	S12 Student Talk	Abdenour Amokrane: Modelling of the
		swelling behavior of a fire retarded material
		under a cone calorimeter
12:10-12:20	S13 Student Talk	Hansen-Bruhn, Iben: Comparison of fire
_		retardant timber treatments
12:20-13:10	Lunch	Sponsor exhibition

Thursday, 29.06.2023 at Akademie

Session 11	Topic: Flame Retardant Innovations in emerging markets such as e-mobility, composites, additive manufac-turing and 5G telecommunication	Chair: Prof. Dr. Gaëlle Fontaine Dr. Adrian Beard
13:10-13:40	PL7 Plenary	Wang, De-yi: Progress of flame-retardant technologies to electrolytes in lithium-ion battery: strategies and challenges
13:40-14:05	K13 Keynote	Morgan, Alexander: Reactive Flame Retardants for Aerospace-Grade Epoxy Flame Retardants: Design Considerations and Example Chemistries
14:05-14:25	O30 Oral	Carosio, Federico: Green, fire safe and lightweight insulating materials from layer-by-layer coated natural fibers
14:25-14:45	O31 Oral	Wang, Zhengzhou: Flame retardant and smoke suppressive properties of epoxy resin composites with organic phosphates and their mesoporous silica hybrids
14:45-14:55	S14 Student talk	Zhang, Mingyang: An in-situ phosphazene flame retardant derived interface layer in lifepo4 cathode in lithium ion battery
14:55-15:25	Coffee	Sponsor exhibition
Session 12	Topic: Fire safety requirements and standardization	Chair: Dr. Sabyasachi Gaan
	of products used for EVs (batteries,	Prof. Dr. De-Yi Wang
15:25-15:55	PL8 Plenary	Hull, Richard: Fires caused by electric vehicles: flammability and smoke toxicity
15:55-16:20	K14 Keynote	Troitzsch, Jürgen: Passive fire safety in conventional and e-vehicles: status and trends
16:20-16:30	S15 Student talk	Zhou, Yifan: Construction of hierarchical Ti3C2TX@PHbP-PHC architecture with enhanced free-radical quenching capability: Effective reinforcement and fire safety performance in bismaleimide resin
16:30-16:40	S16 Student talk	Chen, Lei: Fire tests of flame retardant thermoplastics for electric vehicle battery pack applications
16:40-16:50	Final remarks	

