

# FRPM19 POSTERS

## GROUP 1

- (P1) C. Boanta:** Flammability, gaseous and particulate emissions from burning cellulose-reinforced polyamide-6 and thermoplastic polyurethane composites
- (P2) W. Hu:** A facile strategy to simultaneously secure the mechanical and fire safety properties of the ramie fabric-reinforced unsaturated polyester resin composites
- (P3) D. Vadas:** Physical and chemical foaming of flame retarded poly(lactic acid)
- (P4) A. Thompson:** Assessing the effect of barrier fabrics on the heat release rate of residential upholstered furniture
- (P5) S. Tretsiakova-McNally:** Passive fire protection of wood substrates using starch-based formulations
- (P6) K. Shen:** Recent developments in the brominated fire retardant industry in China at a time of severe shortage of bromine
- (P7) X. Zhao:** A comparison analysis about the effects of P-containing flame retardants (P-FRs) on the flammability of two epoxy matrix
- (P8) H. Ma:** Synthesis of a functionalised phosphazene-containing nanotube/epoxy nanocomposite with enhanced flame retardancy
- (P9) D. Li:** Exfoliated dispersed MMT in ATH particles: Effect on flame retarded EVA nanocomposites
- (P10) Y.-J. Xu:** Phosphorus-containing imidazole derivative: Latent curing agent toward epoxy system with excellent flame retardance, thermal stability and dielectric property
- (P11) W. Ali:** Organosilicon containing flame retardants based on nitrogen and phosphorus functional groups
- (P12) Y. Kan:** Self-assembly of zinc hydroxystannate on amorphous hydrous TiO<sub>2</sub> solid sphere for enhancing fire safety of epoxy
- (P13) M. H. Mat Kiah:** HCl, HBr and HF emissions from halogenated fire retarded PU and PIR foam fires
- (P14) M. H. Mat Kiah:** HBr toxic gas emissions from fire retarded polyethylene
- (P15) O. Zilke:** Natural-based flame retardants for textiles
- (P16) H.-B. Zhao:** Hierarchically porous SiO<sub>2</sub>/PUF composites towards excellent thermal insulating, flame-retardant and smoke-suppressant performances
- (P17) J. Yousafzai:** Examining the feasibility of predicting fire behaviour for cured epoxy resins
- (P18) B. Spieß:** Investigation of flame retardancy by IR-camera during UL94

## GROUP 2

- (P19) D. Pospiech:** Decomposition and combustion behavior of Lignin-containing polyesters
- (P20) R. Zong:** Fire hazard assessment on thermal polyurethane and its nanocomposites with AHP analysis
- (P21) D. Goedderz:** Phosphorus containing flame retardants for different polymers and their mode of action regarding key species in flame retardancy
- (P22) J. Zhang:** Bimetallic metal-organic framework and graphene oxide nano-hybrids induced carbonaceous reinforcement towards fire retardant epoxy: A novel alternative carbonization mechanism
- (P23) H. Goossens:** Synergistic effects of additives to improve the FR and mechanical properties of FST copolymers
- (P24) K. Salmeia:** Flame retardation of wood with novel triazine phosphonates
- (P25) B. Wang:** Engineering carbon nanotubes wrapped ammonium polyphosphate for enhancing mechanical and flame retardant properties of poly(butylene succinate)
- (P26) X. Mu:** A novel and efficient strategy to exfoliation of covalent organic frameworks and a significant advantage of covalent organic frameworks nanosheets as polymer nano-enhancer: High interface compatibility
- (P27) X.-L. Wang:** Durably flame-retardant unsaturated polyester prepared via Schiff-base macromolecular flame retardants
- (P28) B. Tawiah:** Intrinsically non-toxic polydopamine nanoparticles as environmentally benign flame retardant for biodegradable poly(lactic acid)
- (P29) Y. Hou:** Construction of bimetallic ZIFs derived Co-Ni LDHs on the surfaces of GO or CNTs with a recyclable method: Towards reduce toxicity of gaseous thermal decomposition products of unsaturated polyester resin
- (P30) B. Galindo:** Next-generation halogen free flame retardants based on renewable resources
- (P31) M. Maqsood:** Improvement of the flame retardancy of biobased polymer by halogen free intumescent with biobased carbonization agent and mechanism of their char formation
- (P32) D. Meng:** The effects of highly exfoliated montmorillonite decorated by phosphorylated chitosan and aluminium hypophosphite on the flammability of thermoplastic polyurethane nanocomposites
- (P33) Y. Li:** The flame retardancy and water resistance of polylactic acid containing polyborosiloxane microencapsulated ammonium polyphosphate
- (P34) G. Schinazi:** Bio-based flame retardation of acrylonitrile-butadiene-styrene
- (P35) W. Tabaka:** Bench-scale fire stability testing—Assessment of protective coatings on carbon fibre reinforced polymer composites
- (P36) C. Dong:** Cotton fabric treated with flame retardant in dyeing process

## GROUP 3

**(P37) T. Mayer-Gall:** Novel halogen free Flame retardants for textiles

**(P38) E. Schuhler:** Investigation of the fire degradation on carbon reinforced polyphenylene sulphide

**(P39) J. Reuter:** Synergistic flame retardant interplay of aluminum trihydrate with phosphorus containing flame retardants in unsaturated polyester

**(P40) A. Korwitz:** Influence of ferulic acid units on the decomposition and combustion behavior of polyesters

**(P41) A. Mountassir:** Halogen and phosphorus free flame retardants for polystyrene

**(P42) S. Lehner:** Improving flame retardancy of DOPO-PEPA for polyethylene applications using various thermal stabilizers

**(P43) W. Gieparda:** Silanization of flax roving for application in epoxy composites

**(P45) C. Cardelli:** Combination of natural and synthetic FR mineral fillers: Opportunities for flame retardant not toxic cables

**(P46) L. Chen:** An inherently flame retardant PET copolyester with enhanced mechanical properties

**(P47) M. Čolović:** Novel flame retardant polyamide 6 copolymer

**(P48) A.-E. Coman:** Polyols derived from recycled PET as new binders for rocket propellants

**(P49) Y. Danyang:** Preparation and crystal form controlling of fine aluminum hypophosphite

**(P50) M. Luksin:** Novel Approaches for halogen-free flame retardant polystyrene foams: The interplay of organic phosphates and phosphonates with disulfides

**(P51) B. Szolnoki:** Optimization of the flame retardant properties of natural fibre reinforced sugar-based bioepoxy composites

**(P52) C.-C. Höhne:** Sulfides and disulfides of s-triazine and s-heptazine: Flame retardancy

**(P53) S. Rojewski:** Silanized rovings with reduced flammability for applications in prepegs

**(P54) T. von Zons:** Synthetic pathways towards novel organo-phosphorus flame-retardants: Cyclotriphosphazenes with flame-retardant activity for use as flame-retardant additives for thermoplasts and monomers for copolymerization

## GROUP 4

**(P56) K.-E. Decsov:** Development of bioepoxy resin microencapsulated ammonium-polyphosphate for flame retardancy of polylactic acid

**(P57) M.-E. Li:** Functionalized starch modified with phytic acid toward high fire safety of expanded polystyrene foams

**(P58) N. Wolter:** Manufacturing of fiber reinforced polybenzoxazine with advanced fire, smoke and toxicity properties

**(P59) F. Bärmann:** Degradation analysis of polypropylene in the presence of phosphorus and sulfur containing additives -TGA-FTIR and flammability testing

**(P60) T. Wang:** Novel flame retardant polymer aerogel with excellent mechanical properties

**(P61) L. Weber:** Novel N-phosphorylated iminophosphoranes as efficient flame retardants in epoxy resins and composites

**(P62) W.-S. Wu:** A sulphonate-containing PET ionomer with excellent flame retardancy and anti-dripping behaviors

**(P63) Z. Jiang:** Facile synthesis of novel reactive phosphoramidate siloxane and applied in flame retardant cellulose fabrics

**(P65) S. Zhou:** Significant removal of harmful compounds in mainstream cigarette smoke using carbon nanotube mixture prepared via catalytic pyrolysis

**(P66) X. Wang:** Effects of composition on combustion property of carbonaceous heat source material

**(P67) Y. Zhang:** Interactions of tobacco shred and other tobacco-based materials during co-pyrolysis and co-combustion

**(P68) Q. He:** Combustion and pyrolysis characteristics of tobacco celluloses with different structures

**(P69) R. Spogli:** Innovative flame-retardant and mechanical properties implementer additives for a circular economy

**(P70) Y. Zhang:** Eco-friendly flame retardant and electromagnetic interference shielding cotton fabrics with multi-layered coatings

**(P71) W. Guo:** Nano-fibrillated cellulose-hydroxyapatite based composite foams with excellent fire resistance

**(P72) F. Tabrizi:** Thermodynamic Analysis of Pollutant Emission during the Oxy-Combustion of Brominated Waste Electrical and Electronic Equipment