Towards flame retardant biopolymers and biocomposites: current research strategies, scientific barriers and perspective applications

Chairs: Prof. L. Ferry and Dr. R. Sonnier

Final program

Tuesday 16th

9h00 Reception and registration

9h30 Welcome speech (P. Perdiguier for IMT-Mines Alès, A. Bergeret for C2MA and P. Navard for EPNOE)

10h00 Laurent Ferry (C2MA, Ecole des Mines d’Alès, France) Flame retardancy of polymers: How bioresources can help firefighting

10h50 Coffee break

11h20 Stefan Gebke (Technische Universität Dresden, Germany) Flame retardants based on plant raw materials

11h45 Begona Galindo (AIMPLAS, Spain) Next-Generation Halogen Free Flame Retardants Based on Renewable Resources

12h10 Benjamin Chollet (C2MA, France) Thermal and flame retardant properties of polylactide containing lignin micro- and nano-particles

12h35 Lunch

14h00 Claire Negrell (Institut Charles Gerhardt, Montpellier, UMR CNRS 5253, Ecole Nationale Supérieure de Chimie de Montpellier, France) Reactive biobased phosphorylated flame retardants

14h25 Camille François (Institut de Chimie Moléculaire de l’Université de Bourgogne, UMR CNRS 6302, Université de Bourgogne Franche-Comté, Dijon, France) Improving the flame retardant properties of biobased epoxy thermosets - A copolymerization approach

14h50 Valeria Karaseva (C2MA, France) Biosourced phenolic compounds from chestnut wood used as fire retardant agents in epoxy resins

15h15 Clement Lacoste (C2MA, France) Flame retardancy of woods by radiation-curing of phosphorus-based resins
15h40 Coffee break and Poster session

16h40 Nicolas Brosse (LERMAB, France) *Fiberproof cottonized hemp fibers*

17h05 Mohammad Rajaei (Centre for Advanced Composite Materials, University of Auckland, New Zealand) *A Comparative Study of Thermal and Mechanical Behaviour between Flax and Glass Fibre Reinforced Composites*

17h30 Abdelghani Laachachi (LIST, Luxembourg) *Improvement of flame retardant properties of continuous flax fiber-reinforced acrylic composite*

17h55 Laia Haurie (Universitat Politècnica de Catalunya, Espagne) *Fire behaviour of bio-based insulation boards*

20h00 Gala Dinner

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**Wednesday 17th**

8h30 Reception

9h00 Federico Carosio (Politecnico di Torino, Alessandria, Italy) *Invited conference – High Performing Flame Retardant Materials from Surface or Bulk Nanostructuring of Biobased Components*

9h50 Anna Svedberg (MoRe Research Örnsköldsvik AB, Sweden) *Formation of MFC Based Dimensional Structures: Up-scaling Using Traditional Paper Making Approach*

10h15 Rodolphe Sonnier (C2MA, France), *Flame retardancy of cellulose using ionic liquids*

10h40 Coffee break

11h10 Jens Buller (Fraunhofer Institute for Applied Polymer Research, Potsdam, Germany) *Flame retardant bioplastic – conventional systems and novel green concepts for extended applications of biopolymers*

11h35 Jean-Jacques Flat (Arkema, France) *Development of new self-extinguishing bio-based polyamides*

12h00 Aurélie Taguet (IMT Mines Alès, France) *Phosphorus-modified Halloysite nanotubes as flame retardant for polyamide11 polymers*

12h25 Lunch

14h00 C2MA lab visit (with fire tests demonstration)