



SCIENTIFIC PROGRAM JIP 2023

Monday, October 2nd, 2023

12:00-12:15	Registration and documentation
12:15-12:30	
12:30-12:45	
12:45-13:00	
13:00-13:15	
13:15-13:30	
13:30-15:00	
15:00-15:15	Opening and welcome
15:15-15:30	P1 Aránzazu del Campo. Living therapeutic materials: self-replenishable drug depots
15:30-15:45	
15:45-16:00	
16:00-16:15	1. D. Fernández-Villa. Injectable hydrogels for the <i>in situ</i> delivery of a multifunctional therapy in rheumatoid arthritis-affected joints.
16:15-16:30	2. G. Arias-Ferreiro. Vat polymerization of 3D scaffolds with HEMA/CNT hydrogels for spontaneous neuronal differentiation of SH-SY5Y cells
16:30-17:00	Coffee break
17:00-17:15	3. P.V. Badía-Hernández. Synthesis and characterization of polymeric nanofibers as an antineoplastic delivery system in an <i>in vitro</i> model of glioblastoma
17:15-17:30	4. T.M. Díez-Rodríguez. Antimicrobial activity of mesoporous silicas decorated with Ag nanowires and their transfer to biobased PLLA composites
17:30-17:45	5. A. Chiloeches. Antibacterial fibers and flims of PLA and PBAT biobased polymers
17:45-18:00	6. G. Asensio. Methodologies for the fabrication of cations-dopped titanium implant coatings
18:00-18:15	7. V. Hevilla. Photocuring of poly(mannitol sebacate) with functional methacrylic monomer: analysis of chemical, physical and biological properties
18:15-18:30	8. L. Vignau. Active electrospun poly(3-hydroxybutyrate-co-3-hydroxyvalerate) membranes incorporating antioxidant oil from spent coffee grounds
19:00	C0 (COCKTAIL) Half Board

Tuesday, October 3rd, 2023

09:00-09:15	P2 M^a Jesús Vicent. Designing Personalized Polypeptide-based Nanomedicines
09:15-09:30	
09:30-09:45	
09:45-10:00	9. A. Aguanell. Chitosan sulfate-lysozyme hybrid hydrogels as platforms with fine-tuned degradability and sustained inherent antibiotic and antioxidant activities
10:00-10:15	10. S. Muñana-González. Cross-linking as a strategy for chitosan based nanogel formulation
10:15-10:30	11. N. Martin. Optimization of the synthesis of chitosan-hyaluronic acid nanoparticles by a design of experiments system
10:30-10:45	12. J. Oller-Iscar. Characterization of associative polymers through molecular dynamics
10:45-11:00	13. J. Teotonico. Dynamic exchange in boronic ester containing molecules: distinguishing mechanistic pathways
11:00-11:15	14. V. Pirela. Unraveling the complex polymorphic crystallization behavior of the alternating copolymer DMDS-alt-DVE
11:15-11:30	15. P. Liz-Basteiro. High resolution molds, sacrificial in aqueous media, obtained by vat photopolymerization 3D printing
11:30-12:00	Coffee break
12:00-12:15	16. M. Hernández-Rivas. Improving lubricant stability on liquid-infused surfaces by using poliborofluorosilicones
12:15-12:30	17. V. Salaris. <i>In vitro</i> degradation study of PLA-based electrospun nanofibers reinforced with ZnO nanoparticles via electrospinning
12:30-12:45	18. J. Torre. New insights on the molecular confinement and aging of nanocellular polymers
12:45-13:00	19. M. Montero. Elastomeric materials with high technological performance
13:00-13:15	20. P.M. Martínez-Rubio. Tribological performance of biopolymer blends based on PLA and PHBV
13:15-13:30	21. E. Cortés-Triviño. Development of sustainable formulations as an alternative to polyurethanes: influence of the nature of vegetable oil
13:30-15:00	C1
15:00-15:15	22. G. Berra. Novel dynamic redox-responsive starch hydrogels
15:15-15:30	23. I. Insua. Personalización y optimización mediante fabricación aditiva de redes dobles semi-interpenetradas de poliacrilamida y ácido hialurónico
15:30-15:45	24. F.M. Salamanca. Application of a novel unified physical framework to characterize molecular structure of filled rubber compounds based on MQ-NMR
15:45-16:00	25. C. Delgado-Sánchez. New bituminous materials for solar energy storage applications
16:00-16:15	26. A. Tenorio-Alfonso. Polyethylene glycols as a platform for energy transition: a thermal and rheological characterization of anhydrous phase change emulsions
16:15-16:30	27. J. Guardià. Columnar liquid crystalline poly(2-oxazoline)s containing side dendrons: advances in the design of proton-conducting membranes
16:30-17:00	Coffee break
17:00-17:15	28. C. Sedano. Colorimetric detection of Fe(III) with polymeric sensors for the differentiation of ictus
17:15-17:30	29. J.L. Olmedo-Martínez. All polymer nanocomposite salt-free single-ion conductor for lithium metal batteries

17:30-17:45	30. A. Urain. All-in-one dual responsive hydrogels for thermoelectrochromic devices
17:45-18:00	31. A. Campo. Porous polymeric membranes as functional separators for electrochemical batteries
18:00-18:15	32. A. Fernández-Tena. Supertough and semiconductive blends based on polylactide (PLA)
18:15-18:30	33. M. González-Menéndez. Investigating innovative all-polymer nano-composites: blending ferroelectric PVDF with single-chain nano-particles derived from PMMA-based copolymers
19:00	Free time

Wednesday, October 4th, 2023

09:00-09:15	P3 Ester Vázquez. New palette of smart materials for soft robotics applications
09:15-09:30	
09:30-09:45	
09:45-10:00	34. S. Bescós. Amino-yne click chemistry for drug delivery: from low molecular weight model compounds to stimuli-responsive hydrogels
10:00-10:15	35. A. Funes. Synthesis of polymeric materials from renewable resources
10:15-10:30	36. N. Ayensa. Synthesis and characterization of lightcuring dynamic crosslinked systems
10:30-10:45	37. S. Rico-Martínez. New rigid aromatic polyimides having bipyridine groups for gas separation applications
10:45-11:00	38. N. Esteban. Porous polymer materials having phosphine moieties for heterogeneous catalysis
11:00-11:15	39. J. Torres-Rodríguez. Synthesis, structure and crystallization of isodimorphic PDS- <i>ran</i> -PCL copolyesters
11:15-11:30	40. A. Lamas. 'Double-click' O ₂ resistant adhesives with enhanced performance <i>via</i> sequential thiol-michael/-ene polymerizations
11:30-12:00	Coffee break
12:00-12:15	41. V. Oliver. Chemical modification of starch
12:15-12:30	42. A. Ruiz-Bardillo. Long term-dispersible and metal-free single-chain nanoparticles (SCNPs)
12:30-12:45	43. A. Maiz-Iginitz. Scalable enzymatic synthesis of enantiopure β -hydroxy esters and their subsequent polymerization
12:45-13:00	44. U. Larrañaga. Thiol-ene emulsion polymerization using a semibatch system
13:00-13:15	45. J. Delgado-Lijarcio. From bioavailable solvents to amphiphilic polymers: preparation of bio-based polycarbonates and polyacetals from green solvents
13:15-13:30	46. A. Miguel. "A La Carte" porosity and electrical conductivity in pyrolyzed aramids (pyramids): exploring carbon materials
13:30-15:00	C2
15:00-15:15	P4 Carmen Mijangos. Fabrication strategies of functional polymer nanostructures. Nanopolymerization versus Polymer Nanoprocessing
15:15-15:30	
15:30-15:45	
15:45-16:00	47. J.L. Vallejo. Efficient production of lactose-free milk through simple immersion using a film-shaped reusable smart polymer
16:00-16:15	48. M. Martinez. Green electrospinning. Effect of the particle size on the fiber morphology
16:15-16:30	49. C. Marcoaldi. Electrospun multilayered films based on poly(3-hydroxybutyrate-co-3-hydroxyvalerate), copolyamide 1010/1014, and electrospayed nanostructured silica
16:30-17:00	Coffee break
17:00-17:15	50. P. Fanlo. Aero grade epoxy vitrimer: towards commercialization
17:15-17:30	51. M. Mestre-Membrado. Chemical recycling of polyamide 6 from textile waste
17:30-17:45	52. J. Ayestarán. Light-based 3D printing of latex: towards complex geometries of high T _g polymers
17:45-18:00	53. S. Rubio. Exploring bio-based monomers to produce protective coatings by emulsion polymerization
18:00-18:15	54. A.M. Borrero-López. Water-in-oil emulsions and gel-like dispersions obtained by lignin modification

18:15-18:30	55. Z. Zepeda-Rodríguez. Structural characterization of thermo-mechanical devulcanized rubber from end-of-life tires
19:00	Cultural outing + Conference dinner

Thursday, October 5th, 2023

09:00-09:15	P5 Elena Orgilés. Disruptive technologies applied to the development of polymeric materials and the implementation of the circular economy
09:15-09:30	
09:30-09:45	
09:45-10:00	56. V.M. Serrano. Extraction of cellulose and lignin from the revalorization of rice straw
10:00-10:15	57. M. Roman-Vicedo. Study on the evolution of mechanical properties as a function of the substitution percentage of virgin EVA by decrosslinked EVA in formulations for footwear components
10:15-10:30	58. C. Hernández. Structure-properties relationship of polyurethane bioadhesives
10:30-10:45	59. L. Diñeiro. Design and characterization of ultra-soft polyurethanes for tire filling
10:45-11:00	60. E. Luna. Towards a better understanding of cosolvent effect on the glycolysis of polyethylene terephthalate (PET)
11:00-11:15	61. A. Schmidt. Characterization of self-reinforced biocomposites based on a PHBV matrix with PHBV microparticles produced by pre-industrial melt processing
11:15-11:30	62. D. Moncada. Development of polymeric biocomposites for packaging applications
11:30-12:00	Coffee break
12:00-12:15	63. S. García. PHBV production using organic wastes from the food industry with <i>H. mediterrani</i>
12:15-12:30	64. M.I. Peñas. Tunable enzymatic biodegradation of poly(butylene succinate): biobased coatings and self-degradable films
12:30-12:45	65. K. Samaniego-Aguilar. Study of the compatibilizing effect of maleic anhydride grafted poly (butylene succinate-co-butylene adipate) (PBSA) on PHBV/PBSA blends.
12:45-13:00	66. S. Añon-Peral. Development and characterization of electrospun coatings and interlayers of biopolyesters of application interest in food packaging
13:00-13:15	67. S. Roig-Sánchez. Development and characterization of hydrophobic barrier multilayered thermoformed trays based on biopolymers
13:15-13:30	68. M. Grumi. On the unique morphology and properties of electrospun cashew gum-based fiber mats
13:30-15:00	Awards presentation
15:00-15:15	JIP 2023 Farewell Ceremony
15:15-15:30	
15:30-15:45	
15:45-16:00	