

Virtual Milan Polymer Days 2021

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Tuesday, July 6th, 2021

The times refer to the local time in Milan, Italy, i.e. CEST (UTC + 2).

PROGRAM of the POSTER SESSION

The poster communications will be presented in oral form via MS-TEAMS platform.

09:30 AM OPENING CEREMONY

E. Ranucci, University of Milan (I), Congress Chair

MS TEAMS PLATFORM: MIPOL ROOM 1

1st Session - Chairperson: N. Tirelli, Istituto Italiano di Tecnologia IIT, Genoa (I)

09:45 AM **L. Rubino**, Polytechnic University of Milan (I). Cyclic carbamates from (R)-(+)-limonene as monomers for isocyanate-free polyurethanes

10:00 AM **M. A. Utzeri**, University of Palermo (I). Hyaluronic acid coating of hydrophobic carbon nanodots as NIR-responsive hybrid nanosystems for image guided chemo-photothermal therapy of cancer

10:15 AM **M. Cabibbo**, University of Palermo (I). Production of lipid-polymer hybrid nanoparticles (LPHNPs) for targeted delivery of Roflumilast to lung macrophages

10:30 AM **E. Giuliano**, University of Catanzaro "Magna Græcia" (I). Poloxamine 908-based injectable hydrogels as potential delivery systems for hydrophilic molecules and proteins

10:45 AM **S. Ansari**, University of Turin (I). Metal chelator polymeric nanocarriers: a new therapeutic approach in neurological disorder associated with trace metal imbalance

11:00 AM Break time

2nd Session - Chairperson: S. Guillaume, CNRS - University of Rennes 1 (F)

11:10 AM **F. Ferruti**, University of Milan-Bicocca (I). Stimuli-responsive lignin nanoparticles: synthesis, enzymatic reinforcement, and characterization

11:25 AM **I. Ansari**, University of Turin (I). Developing albumin nanoparticle-thermoresponsive hydrogel composite for the ocular delivery of dexamethasone

11:40 AM **S. Voci**, University of Catanzaro "Magna Græcia" (I). Brij O₂-stabilized gliadin-based nanoparticles: physico-chemical properties and in vitro cytotoxicity

11:55 AM **R. Januszewski**, Adam Mickiewicz University, Poznan (PL). Synthesis of novel functional polyolefins

12:10 PM **Z. Munir**, University of Turin (I). Green and sustainable antibacterial chitosan/curcumin nanoformulations for food preservation

12:25 PM Break time

3rd Session - Chairperson: P. Chmielarz, Rzeszow University of Technology (PL)

12:35 PM **C. Scanferla**, University of Insubria (I). Synthesis and characterization of nanosystems based on magnetic nanoparticles and thermo/pH sensitive copolymers by ARGET-ATRP for application in drug delivery

12:50 PM **E. Falletta**, University of Milan (I). Polyanilines/TiO₂ composites as versatile materials for NO_x abatement

01:05 PM **C. Marchesi**, University of Brescia (I). Handled NIR spectrometer and multivariate modelling for microplastic quantification

01:20 PM	C. Cionti , University of Milan (I). Polyaniline-oxide nanocomposites for environmental remediation: the role of the nature of the photocatalyst
01:35 PM	Lunch time
MS TEAMS PLATFORM: MIPOL ROOM2	
4th Session - Chairperson: F. Cellesi , Polytechnic University of Milan (I)	
02:20 PM	L. Maddalena , Polytechnic University of Turin (I). Fundamental aspects and gas-barrier applications of polyelectrolyte-assisted dispersion of reduced graphite oxide nanoplates
02:35 PM	S. S. Mathew , Mahatma Gandhi University (India). A facile and frugal method of starch-gum based edible coating on fresh produce
02:50 PM	A. Kidangayil Sali , Mahatma Gandhi University (India). Aloe vera incorporated chitosan /nano cellulose hybrid nanocomposites as potential edible coating material
03:05 PM	M. Lam , Université Paris 13 (F). Bioactive polymer grafting impacts on silicone breast implants' mechanical properties and cell responses
03:20 PM	Break time
5th Session - Chairperson: A. Dorigato , University of Trento (I)	
03:30 PM	F. Xiao , University of Lille (F). Intumescent polybutylene succinate: synergism between ethylenediamine phosphate and synergists
03:45 PM	M.-O. Augé , University of Lille (F). Flame retardation of PLA via reactive extrusion
04:00 PM	A. Beduini , University of Milan (I). Polyamidoamines derived from natural amino acids as effective, surface-confined flame retardants of cotton
04:15 PM	T. Nazè , University of Lille (F). Reaction to fire of additive manufacturing: is design impacting?
04:30 PM	G. Sanchez-Olivares , CIATEC (MEX). Leather industrial waste as synergistic fire retardant in EVA composites
04:45 PM	Break time
6th Session - Chairperson: N. Mauro , University of Palermo (I)	
05:00 PM	F. Niknam , University of Salerno (I). Copolymerization of CO ₂ with epoxides by [OSSO]-type Cr(III) catalysts
05:15 PM	M. Arioli , Universitat Politècnica de Catalunya (E). Synthesis and characterization of novel even-odd and odd-even polyamides
05:30 PM	A. Krishna , Mahatma Gandhi University (India). Synthesis and characterization of functionalized tween polymer
05:45 PM	F. Moncalvo , Polytechnic University of Milan (I). An ATRP "grafting from" approach to control the molecular architecture of protein-polymer conjugates
MS TEAMS PLATFORM: MIPOL ROOM 3	
7th Session - Chairperson: C. Capacchione , University of Salerno (I)	
02:20 PM	A. Macior , Rzeszow University of Technology (PL). Wood-polymer composites with hydrophobic properties
02:35 PM	F. Galvagnini , University of Trento (I). Thermal-mechanical investigation of Epoxy/HGM syntactic foams incorporating encapsulated phase change materials
02:50 PM	A. Sam , Mahatma Gandhi University (India). Nanoscale hybrid filler reinforced polymer composites
03:05 PM	D. Rigotti , University of Trento (I). Development of a closed loop recycling process of rubber for automotive components
03:20 PM	H. Mahmood , University of Trento (I). Evaluation of the role of end-of-life polyvinyl chloride foams on the thermomechanical properties of ethylene-propylene diene monomers rubber
03:35 PM	Break time

8th Session - Chairperson: D. D'Hooge , University of Ghent (B)	
03:45 PM	M. Marcioni , Polytechnic University of Turin (I). Multilayer coating of cellulose fibers for biopolymer composites
04:00 PM	A. T. Arakkal Thankachan , Mahatma Gandhi University (India). Polymers in high efficiency solar cells
04:15 PM	J. Zarupski , University of Turin (I). Correlating active site properties and kinetics in SiO₂-supported metallocene catalysts for ethylene polymerization
04:30 PM	F. Valentini , University of Trento (I). Production and characterization of EPDM foams with paraffin for thermal management applications
04:45 PM	F. Conte , University of Milan (I). Kinetic modelling of the biodegradation of polymeric materials
05:00 PM	Break time
9th Session - Chairperson: A. M. Bossi , University of Verona (I)	
05:10 PM	A. La Gala , University of Ghent (B). Extrusion-based additive manufacturing of ABS: from theory to experimental validation
05:25 PM	F. J. Arraez Hernandez , University of Ghent (B). Novel mechanistic insights for surface-initiated reversible deactivation radical polymerization
05:40 PM	E. Zeinali , University of Ghent (B). Prediction of partitioning and compartmentalization effects in SG1-mediated miniemulsion polymerization of n-butyl acrylate
05:55 PM	S. Josè , Mahatma Gandhi University (India). Assimilating of carbon particles from vehicle discharge using coarse wool
06:10 PM	END of SESSION and CLOSING REMARKS

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PROGRAM of ORAL SESSIONS – July 7th and 8th, 2021

The oral communications will consist of keynotes (KN), invited lectures (IL), and short oral communications (OC).

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Wednesday, July 7th, 2021

09:30 AM	OPENING CEREMONY	
	E. Ranucci, University of Milan (I), Congress Chair	
	M. P. Abbracchio, University of Milan (I), Delegate Vice-Rector for the Coordination and Promotion of Research	
1st Session - Chairpersons: P. Ferruti and E. Ranucci, University of Milan (I)		
09:50 AM	IL	R. Cavalli, University of Turin (I). Polysaccharide-shelled nanobubbles: impact of the polymer/lipid interface on structure and drug release behaviour
10:20 AM	IL	F. Cellesi, Polytechnic University of Milan (I). Polymer brushes and branches in nanosized delivery systems
10:40 AM	IL	N. Tirelli, Istituto Italiano di Tecnologia, Genoa (I). Low-temperature, organocatalytic ring-opening polymerization in NMP for the precision synthesis of (branched) polylactides
11:00 AM	Break time	
2nd Session - Chairpersons: R. Cavalli, University of Turin (I) and F. Cellesi, Polytechnic University of Milan (I)		
11:10 AM	IL	A. Pich, RWTH Aachen University (D). Multi-responsive nanogels for highly efficient treatments of tumors
11:30 AM	IL	N. Mauro, University of Palermo (I). Carbon nanodots as advanced multifunctional nanoplatforms for theranostics
11:50 AM	IL	N. Griffete, Sorbonne University (F). Magnetic molecularly imprinted polymers for cancer therapy
12:10 PM	OC	A. Gagliardi, University of Catanzaro "Magna Græcia" (I). Entrapment of labile and photosensitive compounds within zein nanosystems
12:25 PM	Lunch time	
3rd Session - Chairpersons: N. Tirelli, Istituto Italiano di Tecnologia, Genoa (I) and N. Griffete, Sorbonne University (F)		
01:25 PM	KN	S. Thomas, Mahatma Gandhi University (India). New opportunities in sustainable nano materials from agro waste
02:05 PM	IL	G. Raffaini, Polytechnic University of Milan (I). Adsorption of chiral 5-aza[5]helicenes on DNA: a molecular dynamics study
02:25 PM	IL	C. Falentin-Daudrè, Université Paris 13 (F). Influence of bioactive polymers size grafting on the biological response
02:45 PM	IL	E. Passaglia, Institute for the Chemistry of OrganoMetallic Compounds, CNR, Pisa (I). Polyphenols as antiviral agents onto NWF of face masks: a proof of concept

03:05 PM	OC	A. M. Bossi , University of Verona (I). Soft molecularly imprinted nanogels to selectively recognize proteins
03:20 PM	Break time	
4th Session - Chairpersons: S. Thomas , Mahatma Gandhi University (India) and E. Passaglia , Institute for the Chemistry of OrganoMetallic Compounds, CNR, Pisa (I)		
03:30 PM	KN	E. Drockenmuller , Université Claude Bernard Lyon 1 (F). Poly(1,2,3-triazolium)s: from functional polymer electrolytes to covalent adaptable network
04:10 PM	IL	F. Greco , University of Reading (UK). Using polymer-drug conjugates to control drug localisation
04:30 PM	Break time	
5th Session - Chairpersons: N. Mauro , University of Palermo (I) and C. Falentin-Daudrè , Université Paris 13 (F)		
04:40 PM	OC	M. Argenziano , University of Turin (I). Composite topical films to enhance the antibiotic activity of colistin for skin infection
04:55 PM	OC	P. Varvarà , University of Palermo (I). A self-tracking nanocomposite as photo-active material with broad-spectrum antibiofilm activity
05:10 PM	OC	S. Elli , Istituto di Ricerche Chimiche e Biochimiche "G. Ronzoni", Milan (I). Structural biology characterization of the SARS-Cov-2 RNA polymerase: evidence of inhibition of the RNA elongation mechanism
05:25 PM	OC	M. Coletti , TA-Instruments, Milan (I). Hyphenated dielectric and rheology technique to study epoxy curing process
05:40 PM	END of SESSION	

Thursday, July 8th, 2021

6th Session - Chairpersons: E. Ranucci and P. Ferruti , University of Milan (I)		
09:30 AM	KN	H. Thunman , Chalmers University of Technology (S). Possibilities to reach 100% circularity of plastics using thermo chemical conversion processes
10:10 AM	IL	M. Malinconico , Institute for Polymers, Composites and Biomaterials, CNR, Pozzuoli (I). The Network of Historic Cities against Plastic Waste (HISCAP)
10:30 AM	IL	S. Federici , University of Brescia (I). Plastic pollution at the micro and nanoscale: "true-to-life" reference materials
10:50 AM	OC	V. Pasini , Thermo Fisher Scientific (I). Microplastics in Earth. Technical aspects of the spectroscopy approach
11:05 AM	Break time	
7th Session - Chairpersons: M. Malinconico , Institute for Polymers, Composites and Biomaterials, CNR, Pozzuoli (I) and S. Federici , University of Brescia (I)		
11:15 AM	IL	P. Fabbri , University of Bologna (I). The role of biotechnology in the transition from plastics to bioplastics
11:35 AM	IL	T. Robert , Fraunhofer WKI, Braunschweig (D). Itaconic acid as renewable building block for UV-curing polymer resins
11:55 AM	IL	M. Galimberti , Polytechnic University of Milan (I). From biosourced monomers to self assembly of graphene based catalysts
12:15 PM	IL	M. Winnacker , Technical University of Munich (D). Terpene-based biopolymers as novel functional biomaterials
12:35 PM	Lunch time	
8th Session - Chairpersons: H. Thunman , Chalmers University of Technology(S) and P. Fabbri , University of Bologna (I)		

01:35 PM	KN	J. Covas , University of Minho, Guimaraes (P). In-process characterization of complex polymer systems during melt compounding
02:15 PM	IL	A. Dorigato , University of Trento (I). Physical properties of novel furan-based polyester blends
02:35 PM	OC	C. Forte , Istituto di Chimica dei Composti Organometallici, CNR, Pisa (I). The thermal-oxidative behavior of cotton coated with an intumescent flame retardant polyamidoamine containing glycine: a multi-technique study
02:50 PM	Break time	
9th Session - Chairpersons: J. Covas , University of Minho, Guimaraes (P) and C. Forte , Istituto di Chimica dei Composti Organometallici, CNR, Pisa (I)		
03:00 PM	IL	C. De Rosa , University of Naples "Federico II" (I). Crystallization of polyolefins as a tool to reveal complex molecular structures
03:20 PM	IL	G. Ricci , Istituto di Scienze e Tecnologie Chimiche "Giulio Natta", CNR, Milan (I). Stereoblock polybutadienes by means of switchable cobalt catalysts
03:40 PM	OC	M. Flejszar , Rzeszow University of Technology (PL). Dually-controlled ATRP of pH-sensitive PDMAEMA brushes inspired by sustainable chemistry
03:55 PM	END of SESSION, POSTER AWARD ANNOUNCEMENT and CLOSING REMARKS	