

Virtual Milan Polymer Days 2020



PROGRAM

The congress presentations consist of keynote lectures (KN), invited lectures (IL), oral (OC) and poster communications (P)

Wednesday, July 15th, 2020

09:30 OPENING CEREMONY

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

L. Prati, University of Milan (I), Head of the Chemistry Department

1st Session - Chairperson: **P. Ferruti** and **E. Ranucci**, University of Milan (I)

09:50 AM KN **D. Díaz-Díaz**, University of Laguna (E). *Polymer adhesives and protective coatings via orthogonal "click" chemistry*

10:30 AM IL **M. Lavorgna**, Institute for Polymers, Composites and Biomaterials CNR, Lecco (I). *On the key role of carbonaceous filler distribution for advanced polymer-nanocomposites*

10:50 AM Break

2nd Session - Chairperson: **D. Díaz-Díaz**, University of Laguna (E) and **M. Coletti**, TA-Instruments (I)

11:00 AM IL **C. Capacchione**, University of Salerno (I). *Synthesis of aliphatic polycarbonates from carbon dioxide and epoxides promoted by OSSO-type transition metal complexes*

11:20 AM IL **F. Auriemma**, University of Naples "Federico II" (I). *Crystallization, polymorphism, morphology and properties of olefin based di- and multi-block copolymers*

11:40 AM IL **D. d'Hooge**, University of Ghent (B). *The amazing world of network polymers and their applications*

12:00 AM Break

3rd Session - Chairperson: **C. Capacchione**, University of Salerno (I) and **M. Lavorgna**, Institute for Polymers, Composites and Biomaterials CNR, Lecco (I)

12:10 PM OC **M. Marcioni**, Polytechnic of Turin (I). *Hydrophobic polyamidoamines: a new class of technological materials?*

12:25 PM OC **M. Haris**, TA Instruments (D). *Dynamic mechanical characterization of cured NR/BR compounds: including investigations into the effects of mastication time and different peptizers*

12:40 PM OC **D. Meroni**, University of Milan (I). *UV-induced synthesis of polyaniline (PANI)-TiO₂ composites: mechanistic insight and application as sorbent for wastewater remediation*

12:55 PM LUNCH

4th Session - Chairperson: **F. Ganazzoli**, Polytechnic of Milan (I) and **A. Manfredi**, University of Milan (I)

01:55 PM KN **H. Iatrou**, University of Athens (GR). *Nanostructured materials for the controlled drug delivery of anticancer agents*

02:35 PM IL **P. Chmielarz**, Rzeszow University of Technology (PL). *Chemistry innovations that will change the world – Reversible Deactivation Radical Polymerization*

02:55 PM OC **I. Zaborniak**, Rzeszow University of Technology (PL). *Ultrasonication – mediated atom transfer radical polymerization in miniemulsion for the preparation of precisely-defined complex polymer architectures*

03:10 PM Break

5th Session - Chairperson: **H. Iatrou**, University of Athens (GR) and **M. Mella**, University of Insubria (I)

03:20 PM OC **M. Malavolti**, Vinavil S.p.A. (I). *Miniemulsion techniques to include hydrophobic monomers in water based acrylic polymer dispersions*

03:35 PM OC **T. Yoshida**, MCPP Germany GmbH (D). *Innovative & sustainable high barrier solutions for circular economy*

03:50 PM OC **P. Petrov**, Bulgarian Academy of Sciences (BG). *Novel block copolymer nanocarriers for enhanced solubilization and sustained release of caffeic acid phenethyl ester*

04:05 PM OC **S. Granados-Focil**, Clark University (USA). *Thermo-optically responsive solid-solid phase change materials as passive temperature controlling building enclosures*

04:20 PM Break

04:30 PM POSTER SESSION

06:30 PM END of SESSION

Thursday, July 16th, 2020

6th Session - Chairperson: E. Ranucci and P. Ferruti, University of Milan (I)

09:30 AM KN **M. Chehimi**, Institut de chimie et des matériaux Paris-Est - CNRS (F). *Adhesion of polymers to diazonium-modified surfaces*

10:10 AM IL **J. Covas**, University of Minho, Guimaraes (P). *The cooling stage in extrusion-based 3D printing techniques*

10:30 AM Break

7th Session - Chairperson: N. Tirelli, Istituto Italiano di Tecnologia, Genoa (I) and F. Auriemma, University of Naples "Federico II" (I)

10:40 AM OC **G. Raffaini**, Polytechnic of Milan (I). *Self-structuring of main-chain and pH-dependent conformation of L-glutamine-based polyamidoamino acid: a molecular dynamics study*

10:55 AM OC **S. Elli**, Istituto di Ricerche Chimiche e Biologiche "G. Ronzoni", Milan (I). *MD simulation of the interaction between neuraminidase N1 of the 1918 pandemic influenza virus to sialoglycan*

11:10 AM OC **A. Scomparin**, University of Turin (I). *Aminated poly(α)glutamate for the systemic delivery of siRNA to solid tumors*

11:25 AM OC **M. Mella**, University of Insubria (I). *Weakly polyelectrolytic surfaces: are there important interactions between ionized and neutral tethered monomers?*

11:40 AM Break

8th Session - Chairperson: J. Covas, University of Minho, Guimaraes (P) and F. Carosio, Polytechnic of Turin (I)

11:50 AM KN **A. Pegoretti**, University of Trento (I). *Thermal energy storage/release with polymer composites and rubbers*

12:30 PM OC **E. Passaglia**, Institute for the Chemistry of OrganoMetallic Compounds CNR, Pisa (I). *Incorporation of 2D black phosphorus (2D-bP) in polymer matrices for designing new materials with tuned morphological and spectroscopic features*

12:45 PM OC **D. Rigotti**, University of Trento (I). *Development of novel furan-based polyester blends*

01:00 PM LUNCH

9th Session - Chairperson: A. Pegoretti, University of Trento (I) and P. Chmielarz, Rzeszow University of Technology (PL)

02:00 PM KN **T. Vermonden**, University of Utrecht (NL). *Balancing hydrophobic and electrostatic interactions in thermosensitive polyplexes for nucleic acid delivery*

02:40 PM IL **N. S. Kehr**, University of Münster (D). *Injectable nanocomposite hydrogels for controlled cell migration and local drug delivery applications*

03:00 PM Break

10th Session - Chairperson: T. Vermonden, University of Utrecht (NL) and V. Castelvetro, University of Pisa (I)

03:10 PM IL **R. Cavalli**, University of Turin (I). *Polymer shelled nanobubbles*

03:30 PM OC **M. Geven**, Istituto Italiano di Tecnologia, Genoa (I). *Disulfide restructuring on nanomanufactured polymer particles*

03:45 PM OC **A. M. Bossi**, University of Verona (I). *Deformable molecularly imprinted nanogels*

04:00 PM IL **N. Tirelli**, Istituto Italiano di Tecnologia, Genoa (I). *Fibrin as a cell matrix. Cell-mediated contraction and other phenomena*

04:30 PM Break

11th Session - Chairperson: A. Bossi, University of Verona (I) and M. Geven, Istituto Italiano di Tecnologia, Genoa (I)

04:40 PM KN **S. Guillaume**, Université de Rennes 1 (F). *Poly(hydroxyalcanoates): stereoregular (co)polymers & biomedical applications*

05:20 PM OC **A. Gagliardi**, University of Catanzaro "Magna Græcia" (I). *Zein: a versatile and promising natural polymer for drug delivery applications*

05:35 PM OC **W. Celentano**, Polytechnic of Milan (I). *Complex polyester-PEG nanoparticles as drug nanocarriers for targeting malignant brain tumors*

05:50 PM OC **L. Izzo**, University of Insubria (I). *Is a molecular "traffic warden" the solution to control drug delivery from polymer-based nanocarriers?*

06:05 PM END of SESSION

Friday, July 17th, 2020

12th Session - Chairperson: L. Falciola, University of Milan (I) and J. Alongi, University of Milan (I)

09:30 AM	KN	A. Gomiero , Norwegian Research Center (N). <i>Micro- and nanoplastics in the environment: current knowledge and future trends</i>
10:10 AM	IL	M. Malinconico , Institute for Polymers, Composites and Biomaterials CNR, Pozzuoli (I). <i>Single use plastics directive: EU policies push plastic industry towards a responsible future</i>
10:25 AM	IL	V. Castelvetro , University of Pisa (I). <i>Microplastics in the environment: an underestimated or overemphasized problem?</i>

10:45 AM Break

13th Session - Chairperson: M. Malinconico, Institute for Polymers, Composites and Biomaterials CNR, Pozzuoli (I) and O. Savard, Hitachi High-Tech Analytical Science Ltd (UK)

10:55 AM	IL	L. Fambri , University of Trento (I). <i>Plastics and polymers in Italian aquatic environments. Survey, monitoring, laboratory analysis and educational aspects</i>
11:15 AM	IL	M. Cocca , Institute for Polymers, Composites and Biomaterials CNR, Pozzuoli (I). <i>Microplastic pollution from synthetic textiles: quantitative evaluation and mitigation strategies</i>
11:35 AM	OC	V. Pasini , Thermo Fisher Scientific (I). <i>The fate of micro plastic in Earth environments. A proposed workflow for pollutant detection using Raman and Infrared micro-spectroscopy</i>

11:50 AM Break

14th Session - Chairperson: G. Cappelletti, University of Milan (I) and M. Cocca, Institute for Polymers, Composites and Biomaterials CNR, Pozzuoli (I)

12:00 AM	IL	E. Davoli , Istituto di Ricerche Mario Negri IRCCS, Milan (I). <i>Microplastics in deep water: a combined GC-MS and FT-IR approach</i>
12:20 PM	IL	S. Federici , University of Brescia (I). <i>Mimicking microplastic pollution through more realistic reference materials</i>
12:40 PM	IL	M. Paturzo , Institute of Applied Sciences and Intelligent Systems CNR, Pozzuoli (I). <i>Microplastics identification via holographic imaging and machine learning</i>
01:00 PM	OC	N. Kasmi , Aristotle University of Thessaloniki (GR). <i>Solvent-free synthesis of new fully biobased diol monomers through industrially viable approach: Toward new insights into the valorization of vanillic acid-based polyesters</i>

01:15 PM LUNCH

15th Session - Chairperson: A. Dorigato, University of Trento (I)

02:15 PM	IL	F. Carosio , Polytechnic of Turin (I). <i>High performing flame retardant materials from surface nanostructuring of biobased components</i>
02:35 PM	OC	O. Savard , Hitachi High-Tech Analytical Science Ltd (UK). <i>See what is really happening within your furnaces</i>
02:50 PM	OC	A. Beduini , University of Milan (I). <i>Homo- and copolymeric polyamidoamines as flame retardants for cotton fabrics</i>
03:05 PM	OC	A. L. Davesne , University of Lille (F). <i>Radiative heat barriers for the fire protection of polyamide 6</i>

03:20 PM Break

16th Session - Chairperson: F. Ganazzoli, Polytechnic of Milan (I) and F. Carosio, Polytechnic of Turin (I)

03:30 PM	IL	L. Mullen , Publisher Elsevier (UK). <i>Materials Today: journals and outreach connecting the materials community</i>
03:45 PM	OC	M. Arioli , University of Milan (I). <i>Highlights on the degradation of polyamidoamines in water and in soil</i>
04:00 PM	OC	N. Toncheva-Moncheva , Bulgarian Academy of Sciences (BG). <i>Novel linear amphiphilic polyglycidol/poly(ϵ-caprolactone) copolymers prepared via "click" chemistry-based reactions</i>
04:15 PM	OC	F. Ferruti , University of Milan-Bicocca (I). <i>Controlled synthesis of linear polyamidoamino acids and preliminary investigation on their cytocompatibility and application in photodynamic therapy</i>

04:30 PM POSTER AWARD ANNOUNCEMENT AND CLOSING REMARKS