

Programma Scientifico:

14 Settembre

15.00-15.10: Apertura Congresso

Chairperson: Gaetano Guerra (UniSa)

15.10-15.50: **Keynote Lecture dedicata ad Adolfo Zambelli:** Claudio Pellecchia (UniSA) *Stereoselective Polymerization Catalysis: from "Tailor-made" Polyolefins to "Green Plastics" in the Tradition of the Natta's School*

Chairperson: Gaetano Guerra (UniSa)

Sezione I (a) : Polimeri

15.50-16.05: Claudio De Rosa (UniNA)

Structure, Mechanical Properties and Stress-induced Phase Transformations of Crystalline Elastomers

16.05-16.20: Giuseppe Di Silvestro (UniMI)

Functional polycondensates of potential industrial interest

16.20-16.35: Alfonso Grassi (UniSA)

Synthesis and Applications of Styrene Copolymers; a 25 years long history at UniSA

16.35-16.50: Elena Groppo (UniTo)

Looking at Ziegler-Natta catalysts from another perspective

16.50-17.05: Luigi Cavallo (KAUST, UniSA)

A Unified Model Explaining Heterogeneous Ziegler-Natta Catalysis

17.05-17.20: Coffee Break

Chairperson: Finizia Auriemma (UniNa)

Sezione I (b) : Polimeri;

17.20-17.35: Placido Mineo (UniCT)

Synthesis, characterization and thermal properties of polymers based composite materials for high power electronic packaging applications

17.35-17.50: Rocco Di Girolamo (UniNA)

Crystalline-crystalline and crystalline-amorphous syndiotactic polypropylene based di-block copolymers prepared by living olefin polymerization

17.50-18.05: F. Curto (Mapei)

Paper and packaging PVAc adhesives: performance and application process enhancement by means of a rheological approach

18.05-18.20: Andrea Pucci (UniPI)

Self-healing and electronic conducting properties of a CNT/polymer composite

18.20-18.35: Ivan Fuso Nerini (Vinavil)

New generation of secondary suspending agents for the polymerization of VCM

18.35-19.35: Assemblea Gruppo Interdivisionale di Catalisi

15 Settembre

Chairperson: Martino Di Serio (UniNa)

8.30-9.10: **Keynote Lecture:** Sesto Viticoli (AIRI)

La Ricerca Responsabile e la Chimica

Chairperson: Martino Di Serio (UniNa)

Sezione II: Il REACH e la Sicurezza dei prodotti chimici

9.10-9.25: Biagio Naviglio (Staz. Sper. Industria delle Pelli, NA)

Tanning, leather and SVHC Substances

9.25-9.40: Carla Zannoni (ENI Dow Lab, S. Donato)

A new GCxGC-MSD method tailored for REACH registration

9.40-9.55: Matteo Guidotti (CNR ISTM, MI)

Bentonite clays as active sorbents: the genesis of a prototypal on-field decontamination device against chemical warfare agents

Chairperson: Ilenia Rossetti (UniMi)

Sezione III (a): Catalisi

9.55-10.10: Roberto Esposito (UniNA):

A sustainable approach for the production of azelaic acid through oxidative cleavage of oleic acid

10.10-10.25: Caterina Barzan (UniTO)

The Comonomer Effect on the Cr^{II}/SiO₂ Phillips Catalyst: First Spectroscopic Evidences

10.25-10.40: Matteo Compagnoni (UniMI)

High-pressure photoreactor for CO₂ conversion to fuels

10.40-11.00: Coffee Break

Chairperson: Mario Marchionna (Saipem)

Sezione III (b): Catalisi

11.00-11.15: Almerinda Di Benedetto (UniNA)

CFD modeling of novel reactor configurations for catalytic combustion.

11.15-11.30: Francesco Della Monica (UniSA)

Dinuclear Iron(III) Complexes containing Thioether-Triphenolate Ligand: Exceptionally Active Catalysts for the Coupling of Carbon Dioxide with Epoxides for COCs Production

11.30-11.45: Giorgio La Sorella (UniVE)

Mimicking Enzymes: Fully Organocatalytic Alkyne Hydration Reaction with a Supramolecular Self-Assembled Capsule

11.45-12.00: Francesco Puzzo (UniBO):

A new process for maleic anhydride synthesis from a renewable building block: the gas phase oxydehydration of bio 1-butanol

12.00-12.15: Massimiliano Mari (UniBO)

The synthesis of nicotinic acid by gas-phase oxidation of β -picoline: an analysis of key catalyst features

12.15-12.30: Angelo Vaccari (UniBO)

On-board H₂ production by partial dehydrogenation of fuels

12.30-12.45: Ilenia Rossetti (UniMI)

Process simulation and optimisation of H₂ production from bioethanol and its use in fuel cells

13.00-14.00: Lunch

Chairperson: Paolo Pollesel (ENI)

14.00-14.40: **Keynote Lecture Medaglia Chiusoli:** Alessandro Scarso (UniVE)

Hugging Catalysts... If They Do Not Mind

Chairperson: Giorgio Strukul (UniVe)

Sezione III (c): Catalisi

14.40-14.55: Nicola Schiaroli (UniBO)

Amines formation in the Medium Temperature Water Gas Shift Reaction

14.55-15.10: Tommaso Selleri (PoliMI)

Low-T mechanistic analysis of NO oxidation and standard SCR over Fe- and Cu- zeolite catalysts by chemical trapping techniques

15.10-15.25: Federico Galli (UniMI)

Nano and micro-TiO₂ for the photodegradation of ethanol: experimental data and kinetic modeling

15.25-15.40: Amir Reza Fahami (PoliMI)

Mechanistic Kinetic Modeling of NO Oxidation over Cu-chabazite

15.40-15.55: Chiara Costabile (UniSA):

Self-healing materials based on Ru and Ru-functionalized-graphene catalysts

16.00-18.30: Poster Session and Coffee

18.30-19.30: Assemblea della Divisione di Chimica Industriale

20.00:

Cena Sociale

16 Settembre

Chairperson: Angelo Vaccari (UniBo)

8.30-9.10: **Keynote Lecture:** Valentina Medri (CNR Faenza):

How to tailor the porosity in geopolymer based materials

Chairperson: Angelo Vaccari (UniBo)

Sezione IV: Materiali e Prodotti Inorganici: sintesi ed applicazioni

9.10 - 9.25: Anna Malafronte (UniNA)

Fabrication of ordered arrays of Pd nanoclusters and PdO nanoparticles by using self-assembled block copolymers as templates

9.25 - 9.40: Federico Bella (PoliTO)

Towards large-scale energy storage systems: how industrially-scalable polymer electrolytes can be conceived

9.40 - 9.55: Alfonso Troisi (UniSa)

Fe₃O₄/MoS₂ and MoS₂: comparisons based on morphological and electrochemical evaluations for two innovative materials for supercapacitors. Features and prospects

9.55-10.10: Francesco Malara (CNR ISTM, MI)

Photodeposition vs. elettrodeposition of Ni(OH)₂ co-catalyst on hematite electrodes for water splitting application

10.10-10.25: Elettra Papa (CNR ISTECC, Faenza)

Insights into freeze casting of geopolymers

10.25-10.55: **Invited Lecture:** Giorgio Ferrari (Mapei)

Innovative sustainable technologies for the construction industry

10.55-11.15: Coffee Break

Chairperson: Federico Bella (PoliTo)

Sezione V: Materiali e Prodotti Organici: sintesi ed applicazioni

11.15-11.30: Giovanni Iannaccone (PoliMI)

Water-based reactive silver ink for flexible polymer solar cells and its interaction with the polymeric hole-transporting layer

11.30-11.45: Simone Galliano (PoliTO)

From organic solvents to water: a more sustainable approach toward industrially-up scalable hybrid solar cells

11.45-12.00: Valentina Sabatini (UniMI)

Innovative printable self-cleaning material for covering photovoltaic cells

12.00-12.15: Damiano Bandelli (UniFI)

Palladium macrocomplexes based on Polymers and Copolymers from renewable resources

Chairperson: Diana Sannino (UniSa)

12.15-12.55: **Keynote Lecture:** Paolo Ciambelli (UniSA)

Carbon nanomaterials: from reserach to market.

13.00-14.00: Lunch

14.00-15.00: Tavola Rotonda con AICIng sulle prospettive delle rispettive discipline

Chairperson: Diana Sannino (UniSa)
Sezione VI: Materiali a base di nano carboni

15.00-15.15: Maria Rosaria Acocella (UniSA)

Dual Role of Graphite Oxide Nanofiller in Thermosets Resins

15.15-15.30: Michele Melchionna (UniTS)

Exceptional activity of MWCNT@Pd/TiO₂ nano hybrid catalyst in the photo reforming of biomass derived alcohols

15.30-15.45: Sara Andreoli (UniBO)

Synthesis of ordered mesoporous carbon materials through soft-template method and their characterization for catalytic application

15.45-16.00: Candida Milone (UniME)

Functional Carbon-Based Materials for Advanced Applications

16.00-16.15: Marcello Casa (UniSA)

Development and characterization of silver nano-particles supported on reduced graphene oxide layers

16.15-16.30

Chiusura Congresso

POSTER

Polimeri

POLI-01: Oreste Tarallo (UniNA)

Isotactic Copolymers of Poly(1-Butene) with 1-Octene from Metallocene Catalysts: Crystallization Behaviour and Mechanical Properties

POLI-02: Odda Ruiz de Ballesteros (UniNA)

Thermoplastic Elastomers from Binary Blends of Syndiotactic Polypropylenes with Different Stereoregularity

POLI-03: Chiara Santillo (UniNA)

Crystal Structure of Isotactic Poly((R,S)3-Methyl-1-Pentene)

POLI-04: Claudia Cioce (UniNA)

Structural characterization of isotactic copolymers of propene with 1-octadecene from metallocene catalysts

POLI-05: Giovanna Capuano (UniMI)

The use of novel PLGA-g-PVP amphiphilic copolymers for fabrication of nanostructured materials

POLI-06: Christophe Daniel (UniSA)

Syndiotactic polystyrene fibers with nanoporous crystalline phases for water and air purification applications

POLI-07: Antonio De Nicola (UniSA)

Computational Study of Polypropylene melt: effect of stereoregularity on chain dimension

POLI-08: Laura Falivene (KAUST)

Mechanistic understanding of polar monomers polymerization

POLI-09: Rosita Lapenta (UniSA)

Polymerization and Copolymerization of L-Lactide and ϵ -Caprolactone promoted by Monoamidinate Titanium complexes

POLI-10: Paola Rizzo (UniSA)

Co-crystallization with low-molecular-mass guest molecules: a common route for getting uniplanar orientations of polymer crystalline phases even in the absence of stretching

POLI-11: Miriam Scoti (UniNa)

Elastomeric properties and stress-induced phase transformations of syndiotactic poly(propylene-co-eicosene)

Catalisi

CAT-01: Rosa Turco (UniNa)

Supported Zinc complex for the esterification and transesterification of vegetable oils

CAT-02: Vincenzo Russo (UniNA)

Ru-based catalysts for γ -valerolactone synthesis

CAT-03: Rosa Vitiello (UniNA)

Synthesis of biolubricants by esterification using new heterogeneous catalysts

CAT-04: Claudia Bandinelli (UniBO)

One-pot Glycerol Oxidehydration to Acrylic Acid on Hexagonal-Tungsten-Bronze-Derived Structures as Multifunctional Catalysts

CAT-05: Rodolfo Mafessanti (UniBO)

Development of innovative catalysts for methanation of syngas deriving from biomass gasification

CAT-06: Angelo Vaccari (UniBO)

New tio-resistant catalysts for on-board H₂ production

CAT-07: Lorenzo Grazia (UniBO)

Selective reduction of furfural with MgO and Mg/Fe/O using methanol as H-transfer reactant

CAT-08: Mattia Melloni (UniBO)

Direct acid hydrolysis of lignocellulosic and cellulosic biomasses: Zr/P/O system vs. Nb/P/O system

CAT-09: Andrea Malmusi (UniBO)

Synthesis of isoprene through C4 – C1 coupling: substituting formaldehyde with methanol, an investigation over the reaction mechanism

CAT-10: Chiara Dalla Valle (UniPD)

A new strategy for the obtainment of fluorinated resins as catalytic support

CAT-11: Antonella Salvini (UniFI)

- Transesterification of castor oil with trimethylchlorosilane for BioDiesel and α -monochlorohydrin production*
CAT-12: Elisa Bertolucci (UniPI)
Green synthesis of ruthenium nanoparticles on magnetic carbon nanostructures and their use for the selective hydrogenation of nitroaromatics
CAT-13: Caterina Barzan (UniTO)
Thermal- and Photo-Activation of CrVI/SiO₂ Phillips Catalyst with Ethylene: Operando Spectroscopic Evidences
CAT-14: Caterina Barzan (UniTO)
Cyclohexene and Methane as Reducing agents for CrVI/SiO₂ Phillips Catalyst
CAT-15 : Caterina Barzan (UniTO)
Surface Reduction of TiO₂ with Hydrosilanes: Conversion of Ethylene to HDPE Without Alkylating Agent
CAT-16: Andrea Chiminazzo (UniVE)
1,2,3-Triazole Fluorescent Bisphosphonates as Osteoporosis Probes Drugs
CAT-17: Alberto Comazzi (UniMI)
Experimental results and dynamic simulation of enriched air production by water degassing for process intensification
CAT-18: Alberto Comazzi (UniMI)
Co and Co/Ru based catalysts synthesized by FSP for the industrial Gas-to-Liquid Fischer-Tropsch process
CAT-19: Nunzia Galdi (UniSA)
One Pot Synthesis Of Linear Alkylbenzenes From Styrene, Ethylene And Hydrogen
CAT-20: Giuseppina Iervolino (UniSA)
Photocatalytic removal of Patent Blue V dye on Au/TiO₂ catalysts
CAT-21: Paola Lanzafame (UniME)
Role of acid sites in porous silica catalysts for selective production of biodiesel additives
CAT-22: Federica Menegazzo (UniVE)
Selective oxidations of biomass resources on Au/ZrO₂ catalysts doped by sulphates
CAT-23: Annarita Noschese (UniSA)
Selective and Efficient Reduction of Nitrobenzene to Aniline catalyzed by AuNPs Embedded in a Nanoporous Crystalline Polymeric Support
CAT-24: Alberto Olivo (UniVE)
Study of photoreactor design for sustainable carbon dioxide photoreduction
CAT-25: Fabrizio Puleo (CNR PA)
B-site Pd and Ni promoted La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3- δ} perovskites as IT-SOFCs cathodes
CAT-26: Elisabetta Rombi (UniCA)
Hard-Templated NiO-CeO₂ mixed oxides as catalysts for CO₂ methanation
CAT-27: Maria Pia Ruggeri (PoliMI)
An innovative method for the estimation of AN storage over commercial Cu-zeolite catalysts for automotive applications
CAT-28: Tommaso Selleri (PoliMI)
Experimental and modeling study of hydrocarbon inhibition effects on NH₃-SCR over metal promoted zeolite catalysts
CAT-29: Claudia Antonetti (UniPI)
Heterogeneous catalysis for the production of 5-hydroxymethyl-2-furfural and of 2,5-bis(hydroxymethyl)furan from fructose and inulin
CAT-30: Javier Miguel Ochando-Pulido (University of Granada)
Organic matter abatement kinetics in olive mill effluents by photocatalysis with ferromagnetic nanoparticles as ultrafiltration pretreatment
CAT-31: María Dolores Víctor-Ortega (University of Granada)
Study of kinetics and equilibrium studies for phenol removal through anionic resins

Materiali e prodotti inorganici

- INORG-01:** Federico Bella (PoliTO)
Industrially-scalable encapsulation of flexible, microfluidic and polymeric dye-sensitized solar cells
INORG-02: Claudia Cirillo (UniSA)

Graphene Coated FeCo Nanoparticles for Supercapacitors

INORG-03: Claudio Evangelisti (CNR MI)

Gold nanoparticles obtained by aqueous digestive ripening: their application as X-ray contrast agents

INORG-04: Giorgio Ferrari (MAPEI)

New sustainable technology to recover returned concrete

INORG-05: Olga Sacco (UniSA)

Improving visible light active photocatalyst performances through photoactive supports in the photocatalytic removal of emerging contaminants

INORG-06: Giuseppe Sarno (UniSA)

Photocatalytic Properties of N-Doped TiO₂ Functionalized Ceramic Tiles under UV and Visible Light Irradiation

INORG-07: Vincenzo Venditto (UniSA)

Monolithic nanoporous-crystalline aerogels with sulfonated amorphous phases: fast and efficient polymer materials for removing VOCs from water

INORG-08: Mario Maggio (UniSA)

Graphite and graphene oxide paper

Materiali e prodotti Organici

ORG-01: Marialuisa Siepi (UniNA)

Denatured Lysozyme: a new tool to solubilize carbon nanomaterials

ORG-02: Damiano Bandelli (UniFI)

Pyrolysis of α -cellulose with multimode microwave oven

ORG-03: Stefano Antenucci (UniMI)

Intrinsic antioxidant bio-based polymer for food active packaging

ORG-04: Federico Galli (UniMI)

Polyhydroxyalkanoate extraction from biomass using environmentally friend techniques

ORG-05: Eleonora Macedi (UniSA)

Guest activated organic functional materials

ORG-06: Gabriele Milani (PoliMI)

Experimental and Finite Element optimization of the production process of rubber insulated electric cables vulcanized with steam water

ORG-07: Stefania Pragliola (UniSA)

Characterization and Optoelectronic Applications of Highly Stereoregular Polymers Containing Carbazole

REACH e Sicurezza

REACH-01: Anna Basco (CNR NA)

The impact of hazardous substances in the case of structural failure of oil and gas offshore platform