



**CONGRESSO CONGIUNTO
SEZIONI CALABRIA E SICILIA**



**Università della Calabria, 1 e 2 dicembre 2025
Centro Congressi “Beniamino Andreatta”
Arcavacata di Rende (CS)**



PROGRAMMA

Con lo sponsor e il patrocinio di:



L'Università della Calabria è lieta di ospitare il Convegno Congiunto delle Sezioni Calabria e Sicilia della Società Chimica Italiana "SCICaSi2025".

La sede è il prestigioso Centro Congressi intitolato a Beniamino Andreatta.

Il Convegno è un'occasione di confronto tra i professori e i ricercatori degli atenei calabresi e siciliani e i loro allievi che avranno l'opportunità di presentare i più recenti risultati della loro attività scientifica in tutti i settori della chimica.

I lavori del convegno, i cui atti saranno pubblicati esclusivamente in formato elettronico, sono articolati in forma di conferenze plenarie, comunicazioni orali e presentazioni flash. Come da tradizione, non mancherà un'articolata sessione poster che, assieme ai vari eventi sociali, consentirà la più ampia interazione tra i partecipanti.

Buon Convegno!

Il Comitato Organizzatore

COMITATO SCIENTIFICO

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Mario PREJANÒ
Cataldo SIMARI

PROGRAMMA BREVE

Lunedì 1 dicembre 2025

08:30-09:00

Registrazione dei partecipanti

09:00-09:30

*Saluti istituzionali e consegna dei Premi SCI
Sezione Calabria*

9:30-11:00 Sessione Scientifica 1

09:30-10:00

Conferenza Plenaria 1 (PL1)

10:00-10:45

Comunicazioni Orali (OC1-OC3)

10:45-11:00

Presentazioni Flash (FP1-FP3)

11:00-11:15 Coffee Break

11:15-13:00 Sessione Scientifica 2

11:15-11:45

Conferenza Plenaria 2 (PL2)

11:45-12:45

Comunicazioni Orali (OC4-OC7)

12:45-13:00

Presentazioni Flash (FP4-FP6)

11:15-13:00 Sessione Parallela

CONTEST ChiMiCApisce

11:45-12:45

Presentazioni

12:55-13:00

Premiazione migliore presentazione

13:00-14:00 Pranzo

14:00-15:00 Sessione Poster (P1-P55)

15:00-16:15 Sessione Scientifica 3

15:00-15:30

Conferenza Plenaria 3 (PL3)

15:30-16:15

Comunicazioni Orali (OC8-OC10)

16:15-16:30 Coffee Break

16:30-17:30 Sessione Scientifica 4

16:30-17:15 Comunicazioni Orali (OC11-OC13)

17:15-17:30 Comunicazioni Flash (FP7-FP9)

**17:30-18:30 Assemblee dei Soci SCI Sezioni Calabria
e Sicilia**

**20:30 Evento Sociale presso il Palazzo della Provincia-
Cosenza**

Martedì 2 dicembre 2025

9:00-11:00 Sessione Scientifica 5

9:00-9:30

Conferenza Plenaria 4 (PL4)

09:30-10:45

Comunicazioni Orali (OC14-OC18)

10:45-11:00

Presentazioni Flash (FP10-FP12)

11:00-11:15 Coffee Break

11:15-13:00 Sessione Scientifica 6

11:15-12:45 Comunicazioni Orali (OC19-OC24)

12:45-13:00 Presentazioni Flash (FP13-FP15)

13:00-13:15 Premiazioni

*Premiazione migliore Comunicazione Orale e miglior
poster*

13:15-13:30 Chiusura dei lavori

PROGRAMMA

Lunedì 1 dicembre 2025

Centro Congressi Beniamino Andreatta

8:30-9:00 **Registrazione dei partecipanti**

9:00-9:30 **Saluti Istituzionali e Consegna dei Premi della Società Chimica Italiana - Sezione Calabria**
Gianluigi Greco, Magnifico Rettore Università della Calabria
Anna Napoli, Direttore Dip. CTC Università della Calabria
Vincenzo Pezzi, Direttore Dip. FSSN Università della Calabria
Alberto Figoli, Direttore ITM-CNR Rende
Emila Furia, Presidente SCI Sezione Calabria
Cosimo Fortuna, Presidente SCI Sezione Sicilia

Sessione Scientifica 1

Chairs: Emilia Furia e Cosimo Fortuna

Aula Magna

9:30-10:00 **PL1: Giovanni De Filpo**, Università della Calabria
PDLC (Polymer Dispersed Liquid Crystal): 40 years of history and research at UNICAL Chemistry Department

10:00-10:15 **OC1: Alessandra Gilda Ritacca**, Università della Calabria
Light-activated membrane-targeted compounds with therapeutic potential

10:15-10:30 **OC2: Giuseppe Cinà**, Università di Catania
Innovative functional platforms for the degradation of organic dyes

10:30-10:45 **OC3: Emilia Paone**, Università di Reggio Calabria
Sustainable upcycling of spent LCO batteries as a heterogeneous catalyst

10:45-10:50 **FP1: Marzia De Santo**, Università della Calabria
Smart mesoporous silica-based nanodevices functionalized with small molecules and peptides for targeted cancer therapy

10:50-10:55 **FP2: Viviana Amoroso**, Università degli Studi di Messina
Electrocatalytic CO₂ reduction at a triple-phase interface: an operando Raman study

10:55-11:00 **FP3: Rosa Nicoletti**, CREA-OFA Rende
Targeted metabolomic analysis of olive xylem reveals biochemical responses to Xylella fastidiosa infection

11:00-11:15 Coffee Break

Sessione Scientifica 2

Chairs: Laura De Luca e Mario Prejanò

Aula Magna

11:15-11:45 **PL2: Donatella Paolino**, Università di Catanzaro
Upcycling food waste into cosmetics: insights from the Tech4You project

11:45-12:00	OC4: Serena Regina , ITM-CNR Rende <i>Highly ordered nanoengineered enzymes as biocatalytic nanostructured membranes</i>
12:00-12:15	OC5: Claudia Granata , Università degli Studi di Messina <i>Gadolinium hydrolysis: beyond the state of the art</i>
12:15-12:30	OC6: Agnese Gagliardi , Università di Catanzaro <i>Applications of plant proteins as biomaterials for drug delivery purposes</i>
12:30-12:45	OC7: Haritha Kumari Arram , Università della Calabria <i>Lawesson reagent-mediated synthesis of thienothiophenimines via intramolecular cyclization of 3-alkynylthiophene-2-carboxamides</i>
12:45-12:50	FP4: Muhammad Habib Ur Rehman , Università della Calabria <i>Green hydrogen production: powering the future with AEM electrolysis</i>
12:50-12:55	FP5: Pia Domina , Università degli Studi di Palermo <i>Graph-based DFT microkinetic analysis of heterogeneous catalytic systems</i>
12:55-13:00	FP6: Giovanna Pitasi , Università degli Studi di Messina <i>In silico strategies for the discovery of elastase inhibitors as potential dermatological agents</i>

Sessione Parallela - Contest ChiMiCapisce

Chairs: Antonella Maggio, Maria Grazia Fortino e Angela Malara

Sala Stampa- Sala A

11:45-12:45 **Presentazioni a cura dei Partecipanti**

12:55-13:00 **Premiazione Vincitori Contest**

13:00-14:00 Pranzo presso Ristorante "Al Cubo"

14:00-15:00 Sessione Poster (P1-P55)

Sessione Scientifica 3

Chairs: Raffaella Mancuso e Giuseppe Floresta

Aula Magna

15:00-15:30	PL3: Giuseppe Arrabito , Università degli Studi di Palermo <i>Sensors in action: towards bespoke analytical devices</i>
15:30-15:45	OC8: Erika Saccullo , Università di Catania <i>Natural pigments in a halloysite-Kojic acid catalyst for solar CO₂ methanation</i>
15:45-16:00	OC9: Giuseppe Scopelliti , Università della Calabria <i>Synthesis and characterization of amino acid-lipid conjugates as phospholipid mimetics for RNA delivery</i>
16:00-16:15	OC10: Ilaria Citro , IPCF-CNR Messina <i>Carbon Dots in DSSCs: tuning optical and charge dynamics for improved efficiency</i>
16:15-16:30	Coffee Break

Sessione Scientifica 4

Chairs: Tiziana Marino e Angelo Nicosia

Aula Magna

- 16:30-16:45 **OC11: Alessio Carmelo Perri**, Università della Calabria
Citrate-modified cellulose as a bioadsorbent for sustainable rare earth elements separation
- 16:45-17:00 **OC12: Roberta Ettari**, Università degli Studi di Messina
Development of novel antiviral agents for the treatment of Dengue and Zika virus infections
- 17:00-17:15 **OC13: Daniele Belletto**, Università della Calabria
Reimagining carbon monoxide: computational insights into CO photorelease from a Mn(I) complex
- 17:15-17:20 **FP7: Giuseppina Anna Corrente**, Università degli Studi di Messina
Exploring natural polysaccharide gums for sustainable thermochemical heat storage
- 17:20-17:25 **FP8: Carmine Bellantoni**, Università degli Studi di Messina
Design and synthesis of pillar[n]arene-based supramolecular Deep Eutectic Solvents
- 17:25-17:30 **FP9: Alessia Dodaro**, Università degli Studi della Calabria
Comparison of European and Asian variants of ALDH2 enzyme: an in-depth computational investigation

- 17:30-18:30 Assemblea dei soci SCI – Cubo 17/C Piano Ponte Carrabile**
Aula CH – 17 – 7A – 1 T **Sezione Calabria**
Aula CH – 17 – 7B **Sezione Sicilia**

Evento Sociale presso L'Enoteca Regionale - Palazzo della Provincia di Cosenza

- 20:00 Momento Musicale "Suoni di Celluloide"**
a cura dei Maestri Francesco Perri e Pasquale Allegretti Gravina.
- 20:45 Cena Sociale**

Martedì 2 dicembre 2025

Centro Congressi Beniamino Andreatta

Sessione Scientifica 5

Chairs: Maria Rosaria Plutino e Pierluigi Plastina

Aula Magna

- 9:00-9:30 **PL4: Paola Dugo**, Università degli Studi di Messina
Comprehensive LC: from niche technology to consolidated laboratory tool for food analysis
- 9:30-9:45 **OC14: Elena Tocci**, ITM-CNR Rende
Phosphonium-based polymerized Ionic Liquid Membranes for energy applications: molecular insights
- 9:45-10:00 **OC15: Giuseppe Pio Antonio Acciardi**, Università della Calabria
Electrochromic and electrofluorochromic hydrogel devices incorporating a water-soluble Ir(III) cationic complex
- 10:00-10:15 **OC16: Alessandro Sinopoli**, Università degli Studi di Messina
MOF-polymer composites for solar-assisted atmospheric water harvesting
- 10:15-10:30 **OC17: Angela Severino**, Università della Calabria
Solar photocatalytic degradation of nanoplastics with hydrogen production: a proposed reaction mechanism
- 10:30-10:45 **OC18: Laura Gueci**, Università degli Studi di Palermo
DFT investigation of hydroquinone decomposition on nickel
- 10:45-10:50 **FP10: Sofia Tropiano**, Università della Calabria
PdI₂-catalyzed carbonylative double cyclization for the synthesis of dihydrofuroquinolinone and dihydropyranoindolone derivatives: computational investigation
- 10:50-10:55 **FP11: Carlo Reale**, Università di Catania
Drug repositioning targeting delta opioid receptor
- 10:55-11:00 **FP12: Giulia Rando**, ISMN-CNR Messina
Bringing circular innovation and energy transition through bio-based textile coatings

11:00-11:15 Coffee Break

Sessione Scientifica 6

Chairs: Donatella Aiello e Annamaria Martorana

Aula Magna

- 11:15-11:30 **OC19: Elvira Pantuso**, ITM-CNR Rende
Functionalized polymeric membranes for monoclonal antibody purification
- 11:30-11:45 **OC20: Laura Marretta**, Università degli Studi di Palermo
Design, synthesis and biological evaluation of ruthenium(II) polypyridyl complexes as mitochondrial G-Quadruplex Binders
- 11:45-12:00 **OC21: Guilherme Duarte Serrão**, Università della Calabria
Development of a chitosan-based hydrogel for heavy metal removal

12:00-12:15	OC22: Nicoletta Gatti , Università di Catania <i>Dual-action hyaluronic acid hydrogels: overcoming antibiotic resistance while promoting healing in chronic wounds</i>
12:15-12:30	OC23: Paola Costanzo , Università della Calabria <i>Engineering ZnO/cellulose composites for tailored antimicrobial materials</i>
12:30-12:45	OC24: Roberta Rocca , Università di Catanzaro <i>Computational design of selective ligands targeting the HIV-1 LTR-III G-Quadruplex to modulate viral transcription</i>
12:45-12:50	FP13: Gaspare Crisà , Università degli Studi di Palermo <i>1,2,4-Oxadiazole salts for antimicrobial applications: synthesis and biological evaluation</i>
12:50-12:55	FP14: Federica Giorgianni , Università degli Studi di Messina <i>Advancing biohybrid systems for light-driven water oxidation: design and synthesis of photo- and redox-active molecular components</i>
12:55-13:00	FP15: Teresa Paviglianiti , Università degli Studi di Messina <i>Kinetic control of TPPS J-aggregates disaggregation by albumin–gold nanoclusters hybrids</i>
13:00-13:15	Premiazione della migliore Comunicazione Orale e del miglior Poster
13:15-13:30	Chiusura dei Lavori

POSTER

P01	Mariafrancesca Baratta <i>Improving the catalytic performance of TiO₂ by its surface deposition on CNT buckypapers for use in the removal of wastewater pollutants</i>
P02	Pierraffaele Barretta <i>Stereochemical factors in the optoelectronics of chiral halide perovskites</i>
P03	Cinzia Benincasa <i>Distinctive phenolic compounds of olive leaves from Leccino clones resistant/tolerant to <i>Xylella fastidiosa</i> subsp. <i>pauca</i> as indicators for the early diagnosis of OQDS</i>
P04	Cinzia Benincasa <i>Valorisation of olive mill wastewater: spray-dried powders and citrus-enriched variants as sources of bioactive phenolic compounds</i>
P05	Marina Bilotta <i>From AI prediction to experimental validation: a machine learning approach to discover Tankyrase 1 inhibitors</i>
P06	Antonella Buccafuri <i>Lipophenols from grapeseed oil: identification and evaluation of antioxidant and antimicrobial properties</i>
P07	Giuseppina Cacciatore <i>Label-free quantitative proteomics of red blood cells as a model for investigating age-related molecular dynamics</i>
P08	Anna Caruso <i>Rational design and biological evaluation of pyrrolidinone-based ACE2 inhibitors as potential therapeutic agents against SARS-CoV-2</i>
P09	Anna Caruso <i>Oscillating colors: the briggs-rauscher reaction as a teaching tool to understand chemical kinetics and the complexity of reactive systems</i>
P10	Jessica Ceramella <i>Synthesis and anticancer evaluation of new NHC-gold(I) complexes coupled with tripeptides bearing a cysteine residue</i>
P11	Martina Chieffallo <i>Detection of virgin coconut oil adulteration by FTIR coupled with MCR: a rapid and green chemometric strategy</i>
P12	Giada Ciardullo <i>Force field development of holey graphene for desalination simulations: a quantum-mechanical study</i>
P13	Giorgio Circosta <i>Natural Deep Eutectic Solvents as new solvents for beeswax treatment in cultural heritage</i>
P14	Simona Ciurciù <i>Micro/mesoporous biochar electrodes enabling synergistic capacitive adsorption and electroreduction of Cu(II) from printed circuit boards leachates</i>
P15	Arcangelo Comandè <i>Esterification of cellulose extracted from Spanish broom</i>
P16	Antonio Curcio <i>Structural and thermodynamic insights into genotype-dependent resistance to bulevirtide in HBV/HDV Infection</i>
P17	Federica Curcio <i>Composite hydrogel with minocycline-MSNs: a sustained-release system for chronic wound healing</i>
P18	Marco D'Alì <i>Molecular basis for the agonist-to-antagonist switching in Kv₇ ion channels</i>
P19	Marco Dattilo

	<i>Development of a dextran-based cationic vector for nucleic acid delivery in gene therapy</i>
P20	Gabriele D'Anna <i>Synthesis of fluorinated biocompatible polyesters</i>
P21	Nicola d'Avanzo <i>Microfluidic GMP-like production of deformable nanovesicles for enhanced skin delivery of Stellaria Media extract</i>
P22	Giuseppe Di Luca <i>Next generation biobased membranes for water treatment applications</i>
P23	Franca Fabiani <i>Bioplastic: a guarantee for the future</i>
P24	Patrizia Murano <i>Optimization of the anaerobic digestion of olive industry by-products</i>
P25	Claudia Ferraro <i>Exosomes from bovine olostrum: a stairway to innovation and beyond – novel isolation, purification and characterization approaches for drug delivery</i>
P26	Adriana Gargano <i>Targeting the HIV-1 LTR-III stem loop: a dual computational approach using peptides and non-peptidic small molecules</i>
P27	Alessandro Grasso <i>New p-Azaquinodimethane (p-AQM) chromophores as versatile singlet fission systems to boost photovoltaic devices</i>
P28	Ilario Greco <i>Virtual screening and molecular dynamics of selected compounds extracted from Citrus Bergamia Risso against human pancreatic lipase and alpha-amylase</i>
P29	Serena Indelicato <i>Monitoring of polycyclic aromatic hydrocarbons exposure in smokers by GC-MS: optimization of a methodological approach using saliva as valuable diagnostic tool</i>
P30	Giuseppina Ioele <i>Simultaneous quantification of ibuprofen and paracetamol in the presence of their photodegradation products in combined formulations by UV-VIS spectrophotometry and chemometric modeling</i>
P31	Aslihan Kara <i>Ferrocenyl-benzothiophene/benzofuran-artesunate derivatives: synthesis and anticancer activity studies</i>
P32	Chiara La Torre <i>"It's always tea time": sustainable kombucha fermentation using orange peel infusion</i>
P33	Alessandro Lo Presti <i>Dopamine-derived molecularly imprinted polymers for the electrochemical detection of levofloxacin in water</i>
P34	Carmen Lo Sardo <i>MS-based untargeted proteomics for evaluating bacterial responses to innovative antimicrobial formulations</i>
P35	Emanuela Marchese <i>Computational drug repositioning for cancer therapy: identification of new potential HuR binders by ensemble docking-based virtual screening</i>
P36	Rocco Marinaro <i>Peptide-functionalized mesoporous silica nanocarrier for HER2-directed delivery of doxorubicin</i>
P37	Nicola Micale <i>Design and evaluation of inhalable gemcitabine lipophilic prodrugs for the treatment of osteosarcoma lung metastasis</i>
P38	Rosa Nicoletti <i>Optimization of selective NADES ultrasound-assisted extraction of oleuropein from olive leaves and subsequent stabilization using spray drying</i>

P39	Maria Rosaria Paravati <i>From mechanism to molecules: unveiling the antiviral action of PS1100 and advancing broad-spectrum phenanthroline</i>
P40	Ortensia Ilaria Parisi <i>Thermo-responsive gel containing bromelain and lignan-loaded liposomes: a natural approach for psoriasis treatment</i>
P41	Vincenzo Patamia <i>HNT nanoplatfrom: integrated c-Met Targeting and PET Traceability</i>
P42	Dario Perziano <i>Green synthesis of core/shell Iron oxide/Gold nanoparticles for Pb²⁺ sequestration in water</i>
P43	Maria Rosaria Plutino <i>From waste to resource: nanotechnologies paving the way for circular and sustainable agriculture</i>
P44	Fortuna Ponte <i>Light-activated Ru(II) and Os(II) chloro-carbonyl complexes: a computational study toward targeted cancer therapy</i>
P45	Giuseppe Prenesti <i>Molecular-level investigation of superficial phenomena at LiCl-polymer Interfaces: a study on PVDF and PP membranes</i>
P46	Vanessa Profiti <i>Biopolymer-based aerogels as advanced greener supports for porous materials</i>
P47	Aurianne Rainot <i>Functionalization of graphene surface to detect guanine quadruplexes</i>
P48	Isabella Romeo <i>Design and optimization of 2-phenylquinoline derivatives targeting SARS-CoV-2 nsp13 Helicase</i>
P49	Michela Romeo <i>Photothermal self-heating membranes for improved energy efficiency in water desalination</i>
P50	Beatrice Russo <i>Towards microplastic-free effluents: performance of a nanofiltration system coupled with moving bed biofilm reactor treatment</i>
P51	Patrizio Russo <i>PdI₂-catalyzed oxidative carbonylation of 5-(2-aminophenyl)pent-4-yn-1-ols for the synthesis of oxepinoindolones</i>
P52	Eva Scarcelli <i>Coffee silverskin extract-functionalised pectin: a sustainable substrate to obtain chicken meatballs with antioxidant and improved sensory properties</i>
P53	Ludovica Scorzafave <i>Self-assembling chondroitin–methotrexate nanoparticles: innovative strategies in chemotherapy</i>
P54	Natalia Sgambellone <i>Lipodisks as innovative platform for antibiotic combotherapy against multidrug-resistant bacteria</i>
P55	Vincenzo Vigna <i>Explainable machine learning for rational design of CO₂-selective polymeric membranes</i>