











# NGChem 2022

# Next Generation Chemists – La parola ai giovani



### Venue

Sala congressi asse didattico di Medicina Cittadella Universitaria di Monserrato S.P. 8 km 0.700, 09042, Monserrato, Cagliari

# **Conference Programme**

#### Friday 4th November 2022

08:30	Registration
09:30	Opening
09:45	Invited talk: Stefano Cinti, Università di Napoli Federico II
10:15	Sponsor presentation: Luca Pala, Fluorsid S.p.A.
10:30	Coffee break & poster session
11:00	Young Chemists communications - Session Avogadro
13:00	Lunch
14:15	Sponsor presentation: Paolo Sessa, Perkin Elmer/AIM s.a.s
14:30	Invited talk: Evelina Colacino, Università di Montpellier
15:00	Young Chemists communications - Session Bohr
16:10	Coffee break & poster session
16:40	Young Chemists communications - Session Curie
17:40	Roundtable
19:00	Closure
Saturday 5th November 2022	
09:00	Invited talk: Marta Da Pian, Elsevier
09:30	Young Chemists communications - Session De Lavoisier
10:50	Coffee break & poster session
11:15	Young Chemists communications - Session Ehrlich
12:35	Sponsor presentation: Luigi Pisani, GNR S.r.l
12:50	Awards and closure





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## Friday, 4th November 2022, 08:30 - 19:00

08:30 - Registration

09:30 - Opening

09:45 - Invited Talk: Stefano Cinti, Università di Napoli Federico II

Serve comunicare la chimica ai cittadini? Si, ma come?

10:15 - Sponsor presentation: Luca Pala, Fluorsid S.p.A.

10:30 - Coffee Break & Poster Session

#### 11:00 - Young Chemists Communications - Session Avogadro

**OA1. Rosita Cappai:** "A Multi-Technique approach of thermodynamic study of oxidovanadium (IV) with kojic acid derivatives"

OA2. Davide Schirone: "Rational formulation of a more sustainable household cleaning product"

OA3. Karolina Krautforst: "Bioactive pigments from marine algae encapsulated in cubosomes for pharmaceutical application"

OA4. Claudio Cara: "Fluorine recovery from electrolytic baths of primary aluminium production"

**OA5. Massimo Milia**: "Influence of different light sources on the biochemical composition of Arthrospira spp. Grown in model systems"

OA6. Italo Cirone: "C. Elegans: at the crossroads between cellular and murine models"

OA7. Matteo Aroffu: "DOTAP-liposomes as efficient system for nasal vaccination"

**OA8. Marco Fornasier**: "Shedding light on lipid-protein interactions: alpha-synuclein binding to lipid membranes"

OA9. Francesco Basoccu: "Nitroso Derivatives: a Curse or a Benefit?

**OA10. Vanessa Rosciardi**: "PVA-based hydrogels with active biocidal effect: from polymer functionalization to real-time observation of the gels' efficacy against model bacteria through Confocal Laser Microscopy."

**OA11. Monica Mura:** "Specific buffer effects on DNA melting temperatures and the interactions with supported phospholipid bilayers"

**OA12. Maria Chiara Cabua:** "Preparation, characterization and chemical functionalization of microcrystalline cellulose from Aloe plant waste"

13:00 - Lunch

14:15 - Sponsor Presentation: Paolo Sessa, Perkin Elmer/AIM s.a.s.

#### 14:30 - Invited Talk: Evelina Colacino, Università di Montpellier

Assessing Quantitatively the Greenness of Mechanochemical Processes with the DOZN 2.0 Tool: Application to the synthesis of active pharmaceutical ingredients





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#### 15:00 - Young Chemists Communications - Session Bohr

- OB1. Gavino Bassu: "Fast and Bacterious: diffusivity study of bacteria in confining hydrogel"
- **OB2. Ilenia Lupinu:** "Design and development of new VEGFR/microtubule dual inhibitors for the treatment of metastatic cancers"
- **OB3. Ilaria Clemente**: "Biocompatible hydrogel beads as formulates for treatment of soils: synthesis and characterization"
- **OB4. Federica Fulgheri**: "Coloading of artemisin with curcumin or quercetin in nutriosomes to improve the oral therapy of malaria"
- **OB5. Ada Raucci**: "Towards precision agriculture: development of on-glòve electrochemical tool copper monitoring"
- **OB6.** Luca Cappai: "Synthesis and activity of Olivine-based materials for photochemical conversion of CO<sub>2</sub> into valuable products"
- **OB7. Andrea Mara:** "Influence of intermittent irrigation methods on the chemical nature of arsenic species in rice grain"

#### 16:10 - Coffee break & Poster Session

#### 16:40 - Young Chemists Communications - Session Curie

- **OC1. Michael Zanon: "**DLP 3D-printing of sustainable chitosan hydrogels using Quinizarin-based functional "bio-dyes" for tissue engineering applications"
- **OC2. Daniela Secci:** "Exploring new potential scaffolds for the selective inhibition of human Carbonic Anhydrase IX and XII"
- OC3. Fausto Secci: "Design of innovative mesostructured bifunctional catalysts for CO<sub>2</sub> conversion to dimethyl ether"
- OC4. Giammarco Meloni: "Non-noble metal complexes with NHC-phenolate ligands: new catalysts for the CO<sub>2</sub> chemical valorization"
- **OC5. Sara Demartis:** "Reservoir-type 3D printed implantable devices to sustain the long-term release of Rose Bengal in localised cancer therapy"
- **OC6. Marzia Mureddu**: "Effect of ball milling on the microstructure and piezoelectric properties of BCZT ceramics prepared by low-temperature solid state route"

# 17:40 - Roundtable: "SUSTAINABLE CHEMISTRY: can academia and industry join forces to build a better future?"

Panelists: Andrea Porcheddu (UNICA), Gabriele Mulas (UNISS), Alessandro Falchi (Chiesi Farmaceutici), Matteo Caprioli (Nativa), Giovanni Sanna (Matrica), Luca Baraccani (Matrica)

19:00 Closure





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## **Saturday, 5<sup>th</sup> November 2022, 09:00 – 13:00**

#### 09:00 - Invited talk: Marta Da Pian, Elsevier

Speak Data - when good results might not be enough

#### 09:30 - Young Chemists communications - Session De Lavoisier

- **OD1. Paola Carta:** "Theoretical study of functionalized silica-based mesostructured sorbents for gas sweetening"
- **OD2. Alberto Luridiana:** "HAT-mediated XAT for metallaphotocatalyzed cross-electrophile coupling and 1,2-dicarbofunctionalization of Olefins"
- **OD3. Davide Moi:** "Aminotriazoloquinazoline- and Aminotriazolo- based hydroxamic acids are novel potent and selective HDAC6 inhibitors with subnanomolar activity"
- OD4. Giulio Casula: "ARXPS for investigating the surface functionalization of fresh cleaved gold"
- **OD5. Noelia Nieto González: "**Oral suspension administration via paediatric nasogastric tube an in vitro evaluation"
- **OD6. Davide Tocco:** "An investigation of conformational changes and location of BSA upon immobilization within zeolitic imidazolate frameworks (ZIF-8 and ZIF-zni)"
- **OD7. Jessica Milia:** "Switching-on fluorescence by copper (II) and basic anions: a case study with a pyrene-functionalized squaramide"
- **OD8. Giada Mannias**: "Innovative and green perspectives of iron(III) trimesate Metal-Organic Frameworks via mechanochemical and sonochemical approaches"

#### 10:50 - Coffee break & poster session

#### 11:15 - Young Chemists communications - Session Ehrlich

- **OE1. Luca Casula: "**Nanosuspensions as a formulation strategy to boost the delivery of poorly soluble drugs"
- **OE2.** Luciano Atzori: "Cu/Zn/Me/Zr/Si (Me = Mg, Ce, La) Soft-templated catalysts for CO<sub>2</sub> hydrogenation to methanol"
- **OE3. Rodolfo Esposito:** "The rational use of new eco-friendly wetting agents in chemical formulations"
- **OE4. Mariangela Oggianu:** "A thermally/chemically robust and easily regenerable anilatobased ultramicroporous 3D MOF for CO<sub>2</sub> uptake and separation"
- OE5. Antonella Miglione: "Lateral flow assay powered by electroanalysis"
- **OE6. Stefania Peddio:** "Sardinian and italian *Phaseolus vulgaris* cultivar as source of bioactive compounds: alpha amylase inhibitor and alpha glucosidase inhibitor"
- **OE7. Stefano Barranco:** "Stereoselective synthesis of novel heterocyclic  $\beta$ -amino cyclobutane carboxylic amides"
- OE8. Mert Acar: "Effects of electrolytes on the enzymatic activity in urea/urease system"

#### 12:35 Sponsor presentation: Luigi Pisani, GNR S.r.l.

#### 12:50 Awards and closure