

ChirItaly2022

4° Incontro Italiano sulla Chiralità Molecolare
Matera 19-21 settembre 2022

Programma

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19 Settembre 2022

- 09:15** **Registrazione ChirItaly 2022**
- 10:00** **Inizio lavori e saluti istituzionali**
- 10:30 Chairman: **Antonio Evidente**
- 10:30 **L1 Giovanni Appendino**
Scalemic natural products: blessing or curse?
- 11:20 **O1 R. Ruzziconi**
What does Aion's sentinate mosaic and Möbius's strip have to do with chirality?
- 11:40 **O2 G. Mazzeo, S. Abbate, M. Fusè, A. Evidente, G. Longhi**
Circularly polarized luminescence of natural compounds
- 12:00 **O3 P. Lupattelli, T. Laurita, L. Chiumminto, M. Funicello, A. Santarsiere**
From trans 2,3-diaryloxiranes to trans 2,3-diaryl-2,3-dihydrobenzofurans: towards the synthesis of ϵ -Viniferin and Gnetin C
- 12:20 **O4 F. Presini, P.P. Giovanninni, G. Bernacchia, S. Aprile, F. Tosato**
Chemoenzymatic stereodivergent synthesis of all the stereoisomers of the 2,3-dimethylglyceric acid
- 12:40 **O5 A. Santarsiere, M. Funicello, P. Lupattelli, L. Chiumminto, S. Choppin, F. Colobert, G. Hanquet**
The ene-yne structural motif as a way to reach myricanol
- 13:00** **Pausa pranzo**
- 14:00** **Sessione poster**
- 15:00** Chairman: **Sergio Abbate**
- 15:00 **O6 M. Stefanelli, G. Magna, R. Martini, I. Di Filippo, D. Monti, C. Di Natale, R. Paolesse**
Porphyrin and proline: a long lasting story that never bores
- 15:20 **O7 A. Taddeucci, L. Di Bari, G. Siligardi, M. J. Fuchter, F. Furlan**
A novel Binaphthol derivative as Chirality Inducer in Thin Film

- 15:40 **O8 G. Albano**, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola
Aggregation modes of chiral diketopyrrolo[3,4-c]pyrroles: synthesis and chiroptical investigation in solution and thin films
- 16:00 **O9 M. Venanzi**, G. Bocchinfuso, F. Cavalieri, H. Garay Perez
Chiral nanostructures by hierarchical self-assembly of peptide building blocks
- 16:20 **O10 G. Guerra**, P. Rizzo
Intense VCD response of achiral guest molecules of co-crystalline polymer films
- 16:40 Coffee break**
- 17:00 Chairman: **Roberto Purrello**
- 17:00 **L2 Alessandro D'Urso, Roberto Purrello**
Designing chiral supramolecular systems
- 17:50 **O11 V. D'Annibale**, B. Pacini, A. D'Annibale, D. Catapano, A. Del Giudice, C. Marconi, L. Galantini, **D. Monti**
On the chiral self-assembly of an amphiphilic porphyrin-bile salt conjugate
- 18:10 **O12 A. Longo**, R. Zagami, M. A. Castriciano, A. Romeo, E. Collini, **L. Monsù Scolaro**
Effects of counter-anions on chirality in porphyrin J-aggregates
- 18:30 **O13 G. Schifino**, M. Fortino, L. Monsù Scolaro, A. Pietropaolo
Extending axial chirality in the supramolecular self-assembly of meso-tetrakis(4-sulfonatophenyl)porphyrin aggregates
- 18:50 **O14 C. Sissa**, L. Grisanti, M. Sujith, K. G. Thomas, A. Painelli
Theoretical approaches for chiral supramolecular aggregates
- 19:10 Termine sessione
- 19:20 Welcome party**

20 Settembre 2022

- 09:00 Chairman: **Domenico Spinelli**
- 09:00 **L3 Claudio Villani**
Chromatographic resolution of enantiomers: theoretical and practical aspects
- 09:50 **O15 G. Magna**, M. Stefanelli, D. Monti, M. Šakarašvili, G. Giancane, S. Bettini, L. Valli, V. Borovkov, R. Aav, C. Di Natale, R. Paolesse
Electronic noses approach for chiral odor discrimination
- 10:10 **O16 G. Bonetti**, T. Benincori, P. Romana Mussini, S. Grecchi, R. Cirilli
A new family of inherently chiral electroactive monomers obtained by chemical resolution
- 10:30 **O17 G. Mazzocanti**, M.A. Guarducci, S. Manetto, F. Gasparriani · M. Pierini, A. Ciogli, C. Villani
Chiral stationary phases based on totally synthetic selectors: What are their exclusive applications and there is space for new structures?
- 10:50 **O18 S. Manetto**, G. Mazzocanti, S. Catinella, V. Mileo, E. Moretti, C. Villani, F. Gasparriani
A comprehensive study of the applicability of Whelk-O1 selector in reversed-phase enantioselective ultra high performance chromatography
- 11:10 Coffee break**
- 11:30 Chairman: **Stefano Menichetti**
- 11:30 **O19 F. Begato**, R. Penasa, G. Licini, C. Zonta
Stereodynamic supramolecular cage as sensor for dicarboxylic acid detection in complex mixtures
- 11:50 **O20 A. Nitti**, G. Preda, D. Pasini
Chiroptical sensors from rigid, C₂-symmetrical molecular scaffolds
- 12:10 **O21 R. Penasa**, F. Begato, S. Abbate, G. Longhi, G. Licini, C. Zonta
Exploiting tris(pyridylmethyl)amine as chiral sensing fluorescent probes
- 12:30 **O22 M. Gaeta**, A. D'Urso
En route to a chiral melanin: the role of porphyrin hetero-aggregates to drive the synthesis of melanin-like Polymers

- 12:50** **Pausa pranzo**
- 14:30 Chairman: **Andrea Mazzanti**
- 14:30 **L4 Gennaro Pescitelli**
Stereochemical analysis through circular dichroism spectroscopies
- 15:20 **O23** M. Fusè, S. Ghidinelli, G. Mazzeo, S. Abbate, **G. Longhi**
When Magnetic Circular Dichroism (MCD) and Circular Dichroism (CD) coexist: The case of a tetraphenoxyperylene-based dye in chiral solvents
- 15:40 **O24** **F. Zinna**
Uncommon twists of chirality: from light to materials
- 16:00 **O25** G. Longhi, G. Mazzeo, A. S. Perera, S. Ghidinelli, M. Fusè, **S. Abbate**
Using VCD to investigate intermolecular hydrogen bonding in solution
- 16:20 **O26** **C. A. Guido**
Structural determination of chiral supramolecular systems: role of intrinsic excitonic magnetic moments and new experiments using electrons
- 16:40 Termine sessione
- 17:00 **Gita sociale**
Visita guidata ai Sassi di Matera
- 20:30 **Cena sociale**

21 Settembre 2022

- 09:00 Chairman: **Francesco Sannicolò**
- 09:00 **O27 I. D'Acquarica**
The strategy of chiral switches in drug discovery
- 09:20 **O28 S. Menichetti, C. Viglianisi, M. Lupi**
Helical shaped chiral heterocycles: Design, synthesis and applications
- 09:40 **O29 S. Rizzo, P.R. Mussini, S. Arnaboldi, S. Grecchi, F. Fontana, R. Cirilli**
Inherently chiral ionic liquids based on stereogenic axes, centers and helices as innovative media for highly efficient enantioselective electrochemical sensors
- 10:00 **O30 M. Lupi, S. Menichetti, S. Abbate, G. Mazzeo, G. Longhi, C. Viglianisi**
Synthesis, red-ox, and chiroptical properties of dimeric and polymeric thia-bridged triarylamine[4]helicenes (TBT[4]H)
- 10:20 **O31 A. Mazzanti, M. Mancinelli**
Dissymmetric bis-aryls boryl-carbazole. Synthesis of a CPL-active B-C atropisomeric amino-borane
- 10:40 Coffee break**
- 11:00 Chairman: **Renzo Ruzziconi**
- 11:00 **O32 A. Dentoni Litta, R. Schettini, I. Khetar, M. Sicignano, A. D'Amato, F. De Riccardis, I. Izzo, G. Della Sala**
Phase-transfer catalyzed C-C bond formation at γ -position of phthalides
- 11:20 **O33 L. Cicco, A. Salomone, P. Vitale, J. González-Sabín, F. M. Perna, J. García-Álvarez, V. Capriati**
Deep eutectic solvents and water: Two environmentally benign reaction media for the asymmetric synthesis of chiral primary amines and secondary alcohols
- 11:40 **O34 F. Tassinari, Y. Sang, K. Santra, W. Zhang, C. Fontanesi, B. P. Bloom, D. H. Waldeck, J. Fransson, R. Naaman**
Chiral electrocatalysts enhance the oxygen reduction reaction
- 12:00 **O35 R. Schettini, A. D'Amato, G. Della Sala, I. Izzo, F. De Riccardis**
A journey through chiral molecules: from conformationally stable cyclic peptoids to chiral azamacrocycles
- 12:20 Chiusura 4° ChirItaly 2022**

Posters

- P1** **F. Bertocchi**, C. Sissa, A. Painelli
Bridging the gap between supramolecular and plasmonic chiral nanoassemblies: a unifying picture.
- P2** **C.A. Calace**, R. Tortoriello, D. Acquavia, A. Evidente, S. Superchi, P. Scafato
Towards the first total synthesis of the fungal metabolite sphaeropsidone and its stereoisomers.
- P3** **U. Calice**, M. Masi, A. Evidente, P. Scafato, S. Superchi
Assignment of the Relative and Absolute Configuration of the Fungal Metabolite Diplofuraxin by Computational Analysis of Its ECD Spectrum.
- P4** **U. Calice**, G. Marsico, S. Belviso, P. Scafato, A. Evidente, S. Superchi
Assignment of Absolute Configuration UV-transparent of (-)-1 α ,2 α ,3 β -trihydroxy-p-menthane by Use of a Biphenyl Chiroptical Probe.
- P5** **M. Caporale**, M. Stefanile, P. Scafato, S. Superchi
Flexible dithienyls as Molecular Chirality Sensors
- P6** **M. Caporale**, G. Marsico, P. Scafato, S. Superchi
General Enantioselective Approach to α,β -Hydroxyaminoacids: Synthesis of the Marine Metabolite 3-Amino-2-hydroxy-6-methylheptanoic Acid.
- P7** **M. Caporale**, D. Ianniciello, G. Marsico, A. Evidente, S. Superchi, P. Scafato
Diastereo- and enantioselective synthesis of precursors of the natural herbicide ascaulitoxin
- P8** **F. Giuzio**, M.G. Bonomo, A. Catalano, V. Infantino, M. S. Sinicropi, C. Saturnino
Design, molecular docking and synthesis of Human Transmembrane Protease Serine-2 (TMPS2) inhibitors guanidine derivatives against SARS-CoV2 infection.
- P9** **A. Santarsiere**, M. Funicello, P. Lupattelli, L. Chiumminto
Synthesis of chiral oxazolidinones with promising anti-HIV activity.
- P10** **O. G. Willis**, F. Petri, G. Pescitelli, A. Pucci, E. Cavalli, A. Mandoli, F. Zinna, L. Di Bari
Efficient 1400–1600nm Circularly Polarized Luminescence from a Tuned Chiral Erbium Complex.