

Curriculum Vitae

Andrea Mezzetta



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POSIZIONE RICOPERTA

University of Pisa, Department of Pharmacy

ISTRUZIONE ed ESPERIENZE LAVORATIVE (short CV)

Andrea Mezzetta graduated in Industrial Chemistry at the University of Pisa in 2013. Afterwards, I completed my Ph.D. in Chemical Engineering in 2018 at University of Pisa with a thesis on "Innovative processes for the synthesis of ionic liquids and their industrial applications". After completing my PhD, I spent 18 months as a Research Fellow, working on a project involving biopolymers with a national company. I then joined the University of Pisa as a junior researcher in organic chemistry for three years. I'm currently a senior researcher in organic chemistry at the University of Pisa.

COMUNICAZIONI a CONGRESSO

I am author of 30 contributions to meetings, including 25 as a presenting author in the form of oral communications, posters, and flash presentations. This includes 7 international oral communications, 6 national oral communications, 10 posters and 2 flash communications.

Comunicazioni

- Andrea Mezzetta, Gaetano Iaquaniello Barbara Masciocchi, Christian S. Pomelli, Alessio Gentile, and Cinzia Chiappe. "Microalgae processing with room temperature ionic liquids". **Poster**, EUCHEM2014 Conference on Molten Salts and Ionic Liquids XXV, Tallin 06-11 July 2014. (Internazionale)
- Andrea Mezzetta, Cinzia Chiappe, Barbara Masciocchi, and Alessio Gentile. "Biodiesel from Algal Oil Using Ionic Liquids" Renewable Resources & Biorefineries. **Poster**, York 3-5 Luglio 2015. (Internazionale)
- Cinzia Chiappe, Andrea Mezzetta, Alberto de Angelis, Giulio Assanelli, Maria Jesus Rodriguez Douton. "Dissolution and Transformation of Biopolymers in Ionic Liquids". **Poster**, Iberoamerican Meeting on Ionic Liquids- IMIL 2015, Madrid July 2-3 2015 Spain. (Internazionale)
- Andrea Mezzetta, Christian Silvio Pomelli, Cinzia Chiappe, Barbara Masciocchi, Alessio Gentile, and Gaetano Iaquaniello. "Biodiesel from microalgae: the role of a new class of ionic liquids". NANOTECHITALY 2015, **Oral Presentation**, Bologna 25-27 Novembre 2015. (Internazionale)
- Cinzia Chiappe, Maria Jesus Rodriguez Douton, Barbara Masciocchi, Alessio Gentile, Alberto de Angelis, Giulio Assanelli, and Andrea Mezzetta. "Biomass valorization using ionic liquids". **Flash Presentation**, XXXVI Convegno della Divisione di Chimica Organica" Bologna 13-17 Settembre 2015. (Presentazione flash, Nazionale)
- Cinzia Chiappe, Maurizia Seggiani, Sandra Vitolo, and Andrea Mezzetta. "A new class of sustainable hydrophobic ionic liquids" Sigma-Aldrich Young Chemists Symposium (SAYCS 2015, XV Edition) **Poster**, Rimini 27-29 Ottobre 2015. (Internazionale)

- Cinzia Chiappe, Maurizia Seggiani, Sandra Vitolo, and Andrea Mezzetta. "Fatty acid based ionic liquids from methyl carbonates: synthesis and characterization" **Flash Presentation**, COST Meeting-EXIL - EXchange on Ionic Liquids, Poznan 18-20 Aprile 2016. (Internazionale)
- Cinzia Chiappe, Maria Jesus Rodriguez Douton, Andrea Mezzetta, and Christian Silvio Pomelli. "THE EFFECT OF THE HALIDE ANIONS ON NMR AND IR SPECTRA OF IMIDAZOLIUM BASED IONIC LIQUIDS". 26th EuChem-Conference of Molten Salts and Ionic Liquids. **Poster**, Vienna 3-8 Luglio 2016. (Internazionale)
- Cinzia Chiappe, Maurizia Seggiani, Sandra Vitolo, and Andrea Mezzetta. "Fatty acid based ionic liquids: the peculiar properties of a class of bio-based salts ". XXXVII Convegno della Divisione di Chimica Organica. **Flash Presentation**, Mestre-Venezia 18-22 Settembre 2016. (Nazionale)
- Andrea Mezzetta, Cinzia Chiappe, Lorenzo Guazzelli. "New opportunities from the ChIC (Chitosan, Ionic Liquid, CO₂) three component system" Merck Young Chemists Symposium (MYCS 2016, XVI Edition) **Poster**, Rimini 25-27 Ottobre 2016. (Internazionale)
- Andrea Mezzetta, Lorenzo Guazzelli, Luca Guglielmero, Christian S. Pomelli, Cinzia Chiappe. "Dicationic Ionic Liquids (DILs): synthesis, characterization and applications". **Poster**, 20th European Symposium on Organic Chemistry", Colonia 2-6 Luglio 2017. (Internazionale)
- Andrea Mezzetta, Lorenzo Guazzelli, Luca Guglielmero, Christian S. Pomelli, Cinzia Chiappe. "Dicationic Ionic Liquids (DILs): synthesis, characterization and applications". **Poster**, XXVI Congresso Nazionale della Società Chimica Italiana, Paestum 10-14 Settembre 2017. (Nazionale)
- Andrea Mezzetta, Stefano Becherini, Lorenzo Guazzelli, Cinzia Chiappe. "Address the challenge of the development of sustainable materials by exploiting ILs and polysaccharides". **Oral Presentation**, XVI Meeting school on carbohydrate chemistry, Certosa di Pontignano (SI), 17-20 June 2018. (Nazionale)
- Andrea Mezzetta, Lorenzo Guazzelli, Luca Guglielmero, Christian S. Pomelli, Cinzia Chiappe. "Cyclic carbonate synthesis: how does the structure of Dicationic Ionic Liquids (DILs) affect the catalytic activity?". **Poster**, EuCheMSIL2018, Lisbon 7-12 Ottobre 2018. (Internazionale)
- Stefano Becherini, Andrea Mezzetta, Cinzia Chiappe, Lorenzo Guazzelli. "Modification of polysaccharide biopolymer in bio-based ionic liquids". **Oral Presentation**. EuCheMSIL2018 Lisbon 7-12 Ottobre 2018. (Internazionale)
- Andrea Mezzetta, Stefano Becherini, Cinzia Chiappe, and Lorenzo Guazzelli. "A new class of solvents for sustainable cellulose functionalisation". **Oral Presentation**. MEYCS2018, 19-21, Rimini Novembre 2018. (Internazionale)
- Andrea Mezzetta, Lorenzo Guazzelli, Luca Guglielmero, Felicia D' Andrea, Cinzia Chiappe. "Effect of the structure on the thermal behavior of di-cationic ionic liquids (DILs)". **Poster (Miglior Poster)**. AICAT 2018 XL National Congress on Calorimetry Thermal Analysis and Applied Thermodynamics. Pisa 17-19 Dicembre 2018. (Nazionale)
- Cinzia Chiappe, Lorenzo Guazzelli, Christian S. Pomelli, Felicia D' Andrea, Andrea Mezzetta, Stefano Becherini. Bio-based ionic liquids: synthesis and applications. **Oral Presentation**. XXXIX Convegno Nazionale della Divisione di Chimica Organica. 8-12 Settembre 2019. (Nazionale)
- Andrea Mezzetta, Vincenzo Perrillo, Christian Pomelli, Felicia D'Andrea, Lorenzo Guazzelli. Comparison of the thermal properties of mono- and di-cationic ionic liquids. **Oral Presentation**. 5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and

14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019). Roma, 27-29 Agosto (2019). (Internazionale)

- Cinzia Chiappe, Andrea Mezzetta, Lorenzo Guazzelli, Felicia D'Andrea, Christian S. Pomelli, and Stefano Becherini.. Synthesis of bio-based ionic liquids for sustainable applications. **Oral Presentation**. MYCS2019, Rimini, 25-27 Novembre 2019. (Internazionale)
- Andrea Mezzetta, Greta Colombo Dugoni, Lorenzo Guazzelli, Monica Ferro, Andrea Mele. Deep Eutectic Solvents for wood cellulose purification. **Oral Presentation**. 2nd International Meeting on Deep Eutectic System, 15-17 June 2021. (Internazionale)
- Andrea Mezzetta, Greta Colombo Dugoni, Lorenzo Guazzelli, Monica Ferro, Andrea Mele. Kraft cellulose purification using Deep Eutectic Solvents. **Oral Presentation**. XVII CSCC 2021 4-7 Luglio 2021, Pontignano. (Nazionale)
- Andrea Mezzetta, Christian Silvio Pomelli, Lorenzo Guazzelli. Reactive Deep Eutectic Solvents (ReDESs): an underexploited option for organic chemistry. **Oral Presentation**. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA. 14-23 Settembre 2021, Milano. (Nazionale)
- Andrea Mezzetta, Felicia D'Andrea, Christian S. Pomelli, Lorenzo Guazzelli. Dicationic Ionic Liquids (DILs): synthesis, characterization, and application. **Oral Presentation**. 28th EUCHEM Conference on Molten Salts and Ionic Liquids. 5-10 June 2022 Patras, Greece (Internazionale)
- Andrea Mezzetta, Felicia D'Andrea, Christian S. Pomelli, Lorenzo Guazzelli. Dicationic Ionic Liquids (DILs): a superior tunable contribution to sustainable catalysis. **Poster**. 3rd Advances in Green Chemistry Conference. 26-30 September 2022, Poznan, Poland. (Internazionale)
- Felicia D'Andrea, Angelica Mero, Marinella De Leo, Andrea Mezzetta, Christian Silvio Pomelli, Alessandra Braca, Lorenzo Guazzelli. Valorisation of food industry wastes by exploiting Natural Deep Eutectic Solvents and bio based-Ionic Liquids. **Oral Presentation**. 3rd Advances in Green Chemistry Conference. 26-30 September 2022, Poznan, Poland. (Internazionale)
- Andrea Mezzetta, Angelica Mero, Gianluca Guerrieri, Felicia D'Andrea, Lorenzo Guazzelli. A novel green approach to the synthesis of Etoricoxib. **Oral Presentation**. XL Convegno Nazionale della Divisione di Chimica Organica, CDCO 11-15 Settembre 2022, Palermo. (Nazionale)
- Andrea Mezzetta, Christian Silvio Pomelli, Lorenzo Guazzelli. Reactive Deep Eutectic Solvents (ReDESs): an underexploited tool for green reactions. **Oral Presentation**. 9th Congress on Ionic Liquids, COIL 9, 24/28 April 2023, Lione, Francia. (Internazionale)
- Andrea Mezzetta, Christian Silvio Pomelli, Lorenzo Guazzelli, Alberto de Angelis, Filomena Castaldo, Luca Chiarabaglio. Alternative process for the valorisation of microalgal biomass. **Oral Presentation**. 29th EUCHEM Conference on Molten Salts and Ionic Liquids, 22-26 Aprile 2024, Santiago di Compostela, Spagna (Internazionale)
- Andrea Mezzetta and Lorenzo Guazzelli. Reactive Deep Eutectic Solvents (ReDESs) in the preparation of new generation of pyrrolidinone-based solvents. **Oral Presentation**. XI Workshop GC-CS - Torino 24-25 Ottobre 2024. (Nazionale)

PUBBLICAZIONI

I am co-author of 79 articles in international journals and 1 granted international patent.

Pubblicazioni

- 1) Cinzia Chiappe, Christian Silvio Pomelli, Andrea Mezzetta, Barbara Masciocchi, Alessio Gentile. "METHOD FOR TREATING ALGAE". Patent, WO2016/012116 (A1) – 2016-01-28
- 2) C. Chiappe, A. Mezzetta, C. S. Pomelli, G. Iaquaniello, A. Gentile and B. Masciocchi. Development of cost-effective biodiesel from microalgae using protic ionic liquids. *Green Chemistry*, 2016,18, 4982-4989. DOI: 10.1039/c6gc00923a.
- 3) C. Chiappe, A. Mezzetta, C. S. Pomelli, M. Puccini, M. Seggiani. Product as reaction solvent: an unconventional approach for ionic liquid synthesis. *Org. Process Res. Dev.* 2016, 20, 2080–2084. DOI: 10.1021/acs.oprd.6b00302.
- 4) A. Mezzetta, L. Guazzelli, C. Chiappe. Access to cross-linked chitosans by exploiting CO₂ and the double solvent-catalytic effect of ionic liquids, *Green Chem.*, 2017, 19, 1235-1239. DOI: 10.1039/c6gc02935c
- 5) C. Chiappe, P. Margari, A. Mezzetta, C. S. Pomelli, S. Koutsoumpos, M. Papamichael, P. Giannios and K. Moutzouris. Temperature effects on the viscosity and the wavelength-dependent refractive index of imidazolium-based ionic liquids with a phosphorus-containing anion. *Phys. Chem. Chem. Phys.*, 2017, 19, 8201-8209. DOI: 10.1039/c6cp08910k
- 6) C. Chiappe, M. J. Rodriguez Douton, A. Mezzetta, C. Silvio Pomelli, G. Assanelli, and A. R. de Angelis. Recycle and Extraction: Cornerstones for an Efficient Conversion of Cellulose into 5-Hydroxymethylfurfural in Ionic Liquids. *ACS Sustainable Chem. Eng.* 2017,5, 5529-5536. DOI: 10.1021/acssuschemeng.7b00875
- 7) A. Mezzetta, L. Guazzelli, M. Seggiani, C. S. Pomelli, M. Puccini, and C. Chiappe. A general environmentally friendly access to long chain fatty acid ionic liquids (LCFA-ILs). *Green Chemistry*, 2017, 19, 3103-3111. DOI: 10.1039/c7gc00830a
- 8) C. Chiappe, M. J. Rodriguez Douton, A. Mezzetta, L. Guazzelli, C. S. Pomelli, A. de Angelis and G. Assanelli. Exploring and exploiting different catalytic systems for the direct conversion of cellulose into levulinic acid. *New J. Chem.*, 2018, 42, 1845-1852. DOI: 10.1039/C7NJ04707J.
- 9) I. Palazzo, A. Mezzetta, L. Guazzelli, S. Sartini, C. S. Pomelli, W. O. Parker Jr, and C. Chiappe. Chiral ionic liquids supported on natural sporopollenin microcapsules. *RSC Adv.*, 2018, 8, 21174–21183. DOI: 10.1039/c8ra03455a.
- 10) M. Puccini, L. Guazzelli, A. Luca Tasca, A. Mezzetta, C. S. Pomelli. Development of a Chemosensor for the In Situ Monitoring of Thallium in the Water Network. *Water Air Soil Pollut*, 2018, 229-239. DOI: 10.1007/s11270-018-3883-1.
- 11) A. Mezzetta, M. J. Rodriguez Douton, L. Guazzelli, C. Silvio Pomelli, and C. Chiappe. Microheterogeneity in Ionic Liquid Mixtures: Hydrogen Bonding, Dispersed Ions, and Dispersed Ion Clusters. *Aust. J. Chem.* 2019, 72(2), pp. 106-111. DOI: 10.1071/CH18375.
- 12) L. Guglielmero, A. Mezzetta, L. Guazzelli, C. S. Pomelli, F. D'Andrea and C. Chiappe. Systematic Synthesis and Properties Evaluation of Dicationic Ionic Liquids, and a Glance Into a Potential New Field. *Frontiers in Chemistry* 2018. 6(DEC),612. DOI: 10.3389/fchem.2018.00612
- 13) A. Moscardini, A. Mezzetta, N. Calisi, S. Caporali, C. S. Pomelli, L. Guazzelli, C. Chiappe. Investigation of a family of structurally-related guanidinium ionic liquids through XPS and thermal analysis. *Journal of Molecular Liquids* 2019, 277, 280-289. DOI: 10.1016/j.molliq.2018.12.083.

- 14) S. Becherini, A. Mezzetta, C. Chiappe, and L. Guazzelli. Levulinate amidinium protic ionic liquids (PILs) as suitable media for the dissolution and levulination of cellulose. *New J. Chem.*, 2019, 43, 4554-4561. DOI: 10.1039/C9NJ00191C.
- 15) S. Di Pietro, V. Bordoni, A. Mezzetta, C. Chiappe, G. Signore, L. Guazzelli, V. Di Bussolo. Remarkable effect of [Li(G4)]TFSI solvate ionic liquid (SIL) on the regio- And stereoselective ring opening of α -gluco carbasugar 1,2-epoxides. *Molecules* 2019, 24, 2946. DOI: 10.3390/molecules24162946
- 16) A. Mezzetta, J. Łuczak, J. Woch, C. Chiappe, J. Nowicki, L. Guazzelli. Surface active fatty acid ILs: Influence of the hydrophobic tail and/or the imidazolium hydroxyl functionalization on aggregates formation. *Journal of Molecular Liquids* 289 (2019) 111155. DOI: 10.1016/j.molliq.2019.111155.
- 17) A. Mezzetta, S. Becherini, C. Pretti, G. Monni, V. Casu, C. Chiappe and L. Guazzelli. Insights into the levulinate-based ionic liquid class: synthesis, cellulose dissolution evaluation and ecotoxicity assessment. *New J. Chem.*, 2019, 43, 13010 – 13019. DOI: 10.1039/c9nj03239h.
- 18) L. Guglielmero, A. Mezzetta, C.S. Pomelli, C. Chiappe, L. Guazzelli. Evaluation of the effect of the dicationic ionic liquid structure on the cycloaddition of CO₂ to epoxides. *Journal of CO₂ Utilization* 34 (2019) 437–445. DOI: 10.1016/j.jcou.2019.07.034
- 19) M. Ambrico, P. Manini, P.F. Ambrico, T. Ligonzo, G. Casamassima, P. Franchi, L. Valgimigli, A. Mezzetta, C. Chiappe and M. d'Ischia. Nanoscale PDA disassembly in ionic liquids: structure–property relationships underpinning redox tuning. *Phys. Chem. Chem. Phys.*, 2019, 21, 12380-12388. DOI: 10.1039/c9cp01545k
- 20) A. Mezzetta, V. Perillo, L. Guazzelli, C. Chiappe. Thermal behavior analysis as a valuable tool for comparing ionic liquids of different classes. *Journal of Thermal Analysis and Calorimetry* 2019, 138(5), pp. 3335-3345. DOI: 10.1007/s10973-019-08951-w
- 21) A. Mezzetta, L. Poderelli, F. D'Andrea, C. S. Pomelli, C. Chiappe and L. Guazzelli. "Unexpected Intrinsic Lability of Thiol-Functionalized Carboxylate Imidazolium Ionic Liquids". *Molecules* 2019, 24, 3571. DOI: 10.3390/molecules24193571.
- 22) A. Mezzetta*, C. S. Pomelli, F. D'Andrea and L. Guazzelli*. 1-Octyl-3-(3-(1-methylpyrrolidiniumyl)propyl)imidazolium Bis(trifluoromethane)sulfonimide. *Molbank*. 2019, 4, M1089. DOI: 10.3390/M1089.
- 23) C. Silvio Pomelli, F. D'Andrea, A. Mezzetta and L. Guazzelli. Exploiting pollen and sporopollenin for the sustainable production of microstructures. *New J. Chem.*, 2020, 44, 647 – 652. DOI: 10.1039/C9NJ05082E.
- 24) D. Cuffaro, F. D'Andrea, A. Mezzetta, L. Guazzelli, C. Chiappe, E. Nuti & A. Rossello. Ionic liquid-promoted green synthesis of biologically relevant diaryl thioethers. *Green Chemistry Letters and Reviews* 2020, 13, 4, 31–38. DOI: 10.1080/17518253.2020.1831082.
- 25) G. Colombo, Dugoni, A. Mezzetta, L. Guazzelli, C. Chiappe, M. Ferro, A. Mele. Purification of Kraft cellulose under mild conditions using choline acetate based deep eutectic solvents. *Green Chem.*, 2020, 22, 24, 8680–8691. DOI: 10.1039/d0gc03375h
- 26) S. Tampucci, L. Guazzelli, S. Buralassi, S. Carpi, P. Chetoni, A. Mezzetta, P. Nieri, B. Polini, C.S. Pomelli, E. Terreni, D. Monti. pH-Responsive Nanostructures Based on Surface Active Fatty Acid-Protic Ionic Liquids for Imiquimod Delivery in Skin Cancer Topical Therapy. *Pharmaceutics*, 2020, 12, 1078. DOI: 10.3390/pharmaceutics12111078.
- 27) E. Husanu, A. Mero, J.G. Rivera, A. Mezzetta, J.C. Ruiz, F. D'Andrea, C.S. Pomelli, L. Guazzelli. Exploiting Deep Eutectic Solvents and Ionic Liquids for the Valorization of Chestnut Shell Waste. *ACS Sustain. Chem. Eng.*, 2020, 8, 18386–18399. DOI: 10.1021/acssuschemeng.0c04945.

- 28) V. Zullo, M. Górecki, L. Guazzelli, A. Mezzetta, G. Pescitelli, A. Iuliano. Exploiting isohexide scaffolds for the preparation of chiral ionic liquids tweezers. *Journal of Molecular Liquids*, 2021, 322, 114528. DOI: 10.1016/j.molliq.2020.114528.
- 29) L. Guglielmero, M. M. Langroudi, M. Al Khatib, M.A.C. de Oliveira, B. Mecheri, M. De Leo, A. Mezzetta, L. Guazzelli, R. Giglioli, A.D. Epifanio, R. Pogni, C. Chiappe, C.S. Pomelli. Electrochemical and spectroscopic study of vanadyl acetylacetonate–ionic liquids interactions. *Electrochim. Acta.* 2021, 373, 137865. DOI: 10.1016/j.electacta.2021.137865
- 30) C. Ferdeghini, L. Guazzelli, C.S. Pomelli, A. Ciccio, B. Brunetti, A. Mezzetta*, S. Vecchio Cipriotti*. Synthesis, thermal behavior and kinetic study of N-morpholinium dicationic ionic liquids by thermogravimetry. *J. Mol. Liq.* 2021, 332, 115662. DOI: 10.1016/j.molliq.2021.115662.
- 31) L. Barulli, A. Mezzetta*, B. Brunetti, L. Guazzelli, S. Vecchio Cipriotti, A. Ciccio*. Evaporation thermodynamics of the tetraoctylphosphonium bis(trifluoromethanesulfonyl)imide([P8888]NTf₂) and tetraoctylphosphonium nonafluorobutane-1-sulfonate ([P8888]NFBS) ionic liquids. *J. Mol. Liq.*, 2021, 333, 115892. DOI:10.1016/j.molliq.2021.115892.
- 32) S. Arnaboldi, A. Mezzetta, S. Grecchi, M. Longhi, E. Emanuele, S. Rizzo, F. Arduini, L. Micheli, L. Guazzelli, P.R. Mussini. Natural-based chiral task-specific deep eutectic solvents: A novel, effective tool for enantiodiscrimination in electroanalysis. *Electrochim. Acta.*, 2021, 380, 138189. DOI: 10.1016/j.electacta.2021.138189
- 33) S. Grecchi, C. Ferdeghini, M. Longhi, A. Mezzetta, L. Guazzelli, S. Khawthong, F. Arduini, C. Chiappe, A. Iuliano, P. Mussini. Chiral biobased ionic liquids with cations or anions including bile acid building blocks as chiral selectors in voltammetry. *ChemElectroChem.* 2021, 8, 1377–1387. DOI: 10.1002/celec.202100200.
- 34) A. Mero, A. Mezzetta, J. Nowicki, J. Łuczak, L. Guazzelli. Betaine and L-carnitine ester bromides: Synthesis and comparative study of their thermal behaviour and surface activity. *J. Mol. Liq.*, 334, 2021, 115988. DOI: 10.1016/j.molliq.2021.115988.
- 35) A. Mezzetta*, L. Guglielmero, A. Mero, G. Tofani, F. D'Andrea, C.S. Pomelli, L. Guazzelli. Expanding the Chemical Space of Benzimidazole Dicationic Ionic Liquids. *Molecules*, 2021, 26, 4211. DOI: 10.3390/molecules26144211.
- 36) A. Mezzetta, R. Ascrizzi, M. Martinelli, F. Pelosi, C. Chiappe, L. Guazzelli G. Flamini. Influence of the Use of an Ionic Liquid as Pre-Hydrodistillation Maceration Medium on the Composition and Yield of Cannabis sativa L. Essential Oil. *Molecules* 2021, 26(18), 5654. DOI: 10.3390/molecules26185654.
- 37) L. Guglielmero, A. Mero, A. Mezzetta, G. Tofani, F. D'Andrea, C.S. Pomelli, L. Guazzelli. Novel access to ionic liquids based on trivalent metal–EDTA complexes and their thermal and electrochemical characterization. *Journal of Molecular Liquids* 340 (2021) 117210. DOI: 10.1016/j.molliq.2021.117210.
- 38) S. Filippi, P. Cinelli, A. Mezzetta, P. Carozzi and M. Seggiani. Extraction of Polyhydroxyalkanoates from Purple Non-Sulfur Bacteria by Non-Chlorinated Solvents. *Polymers* 2021, 13(23), 4163. DOI: 10.3390/polym13234163.
- 39) A. Fabiano, C. Migone, L. Cerri, A. M. Piras, A. Mezzetta, G. Maisetta, S. Esin, G. Batoni, R. Di Stefano, Ylenia Zambito. Combination of Two Kinds of Medicated Microparticles Based on Hyaluronic Acid or Chitosan for a Wound Healing Spray Patch. *Pharmaceutics* 2021, 13(12), 2195. DOI: 10.3390/pharmaceutics13122195
- 40) J. González-Rivera, A. Mero, H. Husanu, A. Mezzetta, C. Ferrari, F. D'Andrea, E. Bramanti, C.S. Pomelli and L. Guazzelli. Combining acid-based deep eutectic solvents and microwave irradiation for improved chestnut shell waste valorization. *Green Chemistry*, 2021, 23(24), pp. 10101–10115. DOI: 10.1039/D1GC03450B

- 41) M. D. Nolan, A. Mezzetta, L. Guazzelli, E.M. Scanlan. Radical-mediated thiol-ene 'click' reactions in deep eutectic solvents for bioconjugation. *Green Chemistry*, 2022, 24(4), pp. 1456–1462. DOI: 10.1039/D1GC03714E.
- 42) B. Azimi, H. Maleki, V. Gigante, R. Bagherzadeh, A. Mezzetta, M. Milazzo, L. Guazzelli, P. Cinelli, A. Lazzeri, S. Danti. Cellulose-based fiber spinning processes using ionic liquids. *Cellulose*, 2022, 29(6), 3079–3129. DOI: 10.1007/s10570-022-04473-1.
- 43) S. Kriptomou, G. Tsonos, A. Mezzetta, A. Mero, L. Guazzelli, K. Moutzouris, I. Stavrakas, C. Tsonos. Dielectric Study of Tetraalkylammonium and Tetraalkylphosphonium Levulinate Ionic Liquids. *Int. J. Mol. Sci.* 2022, 23(10), 5642. DOI: 10.3390/ijms23105642.
- 44) A. Mero, L. Guglielmero, F. D'Andrea, C. S. Pomelli, L. Guazzelli, S. Koutsoumpas, G. Tsonos, I. Stavrakas, K. Moutzouris, A. Mezzetta*. Influence of the cation partner on levulinate ionic liquids properties. *Journal of Molecular Liquids*, 2022, 354, 118850. DOI: 10.1016/j.molliq.2022.118850.
- 45) P. Carlozzi, E. Touloupakis, S. Filippi, P. Cinelli, A. Mezzetta, M. Seggiani. Purple non-sulfur bacteria as cell factories to produce a copolymer as PHBV under light/dark cycle in a 4-L photobioreactor. *Journal of Biotechnology* 356 (2022) 51–59. DOI: 10.1016/j.jbiotec.2022.07.008.
- 46) V. Zullo, S. Grecchi, S. Araneo, M. Galli, S. Arnaboldi, L. Micheli, A. Mezzetta, L. Guazzelli, A. Iuliano, P. R. Mussini. Electroactive bio-based chiral tweezers: Attractive selectors for enantioselective voltammetry. *Electrochimica Acta* 436 (2022) 141191. DOI: 10.1016/j.electacta.2022.141191.
- 47) S. Tampucci, G. Tofani, P. Chetoni, M. Di Gangi, A. Mezzetta, V. Paganini, S. Buralassi, C. S. Pomelli and D. Monti. Sporopollenin Microcapsule: Sunscreen Delivery System with Photoprotective Properties. *Pharmaceutics* 2022, 14, 2041. DOI: pharmaceutics14102041.
- 48) E. Piatti, L. Guglielmero, G. Tofani, A. Mezzetta, L. Guazzelli, F. D'Andrea, S. Roddaro, C. S. Pomelli. Ionic liquids for electrochemical applications: Correlation between molecular structure and electrochemical stability window. *Journal of Molecular Liquids* 364 (2022) 120001. DOI: 10.1016/j.molliq.2022.120001.
- 49) J. Afonso, A. Mezzetta, I. M. Marrucho and L. Guazzelli. History repeats itself again: Will the mistakes of the past for ILs be repeated for DESs? From being considered ionic liquids to becoming their alternative: the unbalanced turn of deep eutectic solvents. *Green Chemistry*, 2023, 25, 59–105. DOI: 10.1039/D2GC03198A.
- 50) S. Koutsoumpas, M. Chronaki, C. Tsonos, T. Karakasidis, L. Guazzelli, A. Mezzetta, K. Moutzouris. On the application of the Wildman-Crippen model to ionic liquids. *Results in Materials* 16 (2022) 100350. DOI: 10.1016/j.rinma.2022.100350.
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