CV - Dr. Giulio RAGAZZON

Born 21 August 1989, Treviso, Italy

Nationality Italian

Email ragazzon@unistra.fr

Google Scholar shorturl.at/btDR1

Address Institut de Science et d'Ingénierie Supramoléculaires (ISIS), University of Strasbourg & CNRS, 8 allée Gaspard Monge, 67000 Strasbourg (FR)

Academic Career

- 2021- Group leader of the "Laboratory of driven chemical processes" and Assistant Professor of Chemistry (Maître de Conférences Associé), Institut de Science et d Ingénierie Supramoléculaires (ISIS), University of Strasbourg, FR
 Topic: energy-demanding chemical processes
- 2018-21 Assistant professor of Chemistry (RTDa), University of Trieste, IT Topic: functional carbon nanodots. Mentor: Prof. Prato
- 2017-18 Postdoctoral researcher, University of Padova, IT Topic: non-equilibrium self-assembly. Supervisor: Prof. Prins

Education

- 2014-17 PhD in Chemistry, University of Bologna, IT
 Topic: molecular devices and machines. Supervisor: Prof. A. Credi
- 2011-13 Master degree in Photochemistry and Molecular Materials, University of Bologna, IT. 110/110 cum Laude
- 2008-11 Bachelor degree in Chemistry, University of Trieste, IT. 110/110 cum Laude
- 2003-08 High school diploma, Liceo Scientico "J. da Ponte", IT. 100/100

Research stays

- 2015-16 Prof. Aida group, The University of Tokyo/Riken Center, JP
- 2013 Dr. McClenaghan group, Institute des Sciences Moléculaires UMR 5255 CNRS/Université Bordeaux I, FR
- 2011 Prof. Sadler group, Warwick University, UK

Publications

I am author of >30 peer-reviewed articles and book chapters, also in renowned journals like Nature Nanotechnology (2), Angewandte Chemie (8), Chem (2), and PNAS (1). The publications that I co-authored received collectively more than 1300 citations, H-index: 17. The most important contributions deal with the non-equilibrium self-assembly of molecular systems. For the full publication list see Google Scholar: shorturl.at/btDR1.

10 most significant publications (reverse chronological order, *=corresponding author, *=equal contribution)

- 1. "Autonomous non-equilibrium self-assembly and molecular movements powered by electrical energy", <u>G. Ragazzon,*</u> M. Malferrari, A. Arduini, A. Secchi, S. Rapino,* S. Silvi,* A. Credi *ChemRxiv*, **2022**, 10.26434/chemrxiv-2021-l6399-v2.
- 2. "Transfer of axial chirality to the nanoscale endows carbon nanodots with circularly polarized luminescence", S. Di Noja, F. Amato, F. Zinna, L. Di Bari,* <u>G. Ragazzon,*</u> M. Prato* Angew. Chem. Int. Ed., **2022**, accepted.
- 3. "Optical processes in carbon nanocolloids", <u>G. Ragazzon,</u>* A. Cadranel, E. V. Ushakova, Y. Wang, D. M. Guldi,* A. L. Rogach,* N. A. Kotov,* M. Prato* *Chem*, **2021**, 7, 606 628.
- 4. "Mapping the surface groups of amine-rich carbon dots enables covalent catalysis in aqueous media", G. Filippini,* F. Amato, C. Rosso, G. Ragazzon,* A. Vega-Peñaloza, X. Companyó,* L. Dell'Amico, M. Bonchio, M. Prato* Chem, **2020**, 6, 3022 3037.
- 5. "Fuel-responsive allosteric DNA-based aptamers for the transient release of ATP and cocaine", E. Del Grosso, G. Ragazzon, L. J. Prins, F. Ricci Angew. Chem. Int. Ed., **2019**, 58, 5582 5586.
- 6. "Energy consumption in chemical-fuel driven self-assembly", <u>G. Ragazzon</u>, L. J. Prins., *Nat. Nanotechnol.*, **2018**, 13, 882 889.

- 7. "Substrate-induced self-assembly of cooperative catalysts", P. Soliìs Muñana, G. Ragazzon, J. Dupont, C. Z-J. Ren, L. J. Prins, J. L.-Y. Chen, Angew. Chem. Int. Ed., **2018**, 57, 16469 16474.
- 8. "Remote electrochemical modulation of pKa in a rotaxane by co-conformational allostery", <u>G. Ragazzon</u>, C. Schäfer, P. Franchi, S. Silvi, B. Colasson, M. Lucarini, A. Credi, *Proc. Nat. Acad. Sci. U.S.A.*, **2018**, 115, 9385 9390.
- 9. "Dissipative synthetic DNA-based receptors for the transient load and release of molecular cargo", E. Del Grosso, A. Amodio, G. Ragazzon, L. J. Prins, F. Ricci, Angew. Chem. Int. Ed., **2018**, 57, 10489 10493.
- 10. "Light-powered autonomous and directional molecular motion of a dissipative self-assembling system", G.Ragazzon, M. Baroncini, S. Silvi, A. Credi, Nat. Nanotechnol., **2015**, 10, 70 75.

Awards & Scholarships

International

- 2022 ERC Starting grant
 - Awarded for project KI-NET, aimed at developing chemical networks that can absorb and transfer energy as Nature does.
- 2022 <u>Fellow of the Foresight Institute class of 2022</u>
 - Foresight Institute is a non-profit organization focused on advancing technologies of fundamental importance for the future of life.
- 2021 <u>Dream Chemistry Award top 5</u>
 - The Dream Chemistry Award is a worldwide competition rewarding young chemists who dream of solving fundamental problems with bold ideas.
- 2016 <u>European Young Chemist Award PhD Level, gold medal</u>
 The European Young Chemist Award is the most important European recognition in chemistry at the PhD level.

National

- 2019 <u>Junior prize "Organic chemistry for the environment, energy and nanoscience"</u> Italian Chemical Society
- 2017 <u>Best PhD thesis in photochemistry</u> Italian Group of Photochemistry
- 2017 <u>Best PhD thesis in inorganic chemistry</u> Italian Chemical Society
- 2017 <u>Levi prize 2016 mention</u>
 - Levi Prize recognizes an outstanding contribution from a young member of the Italian Chemical Society.
- 2015 NEST prize 2014 for research in nanoscience
 - NEST prize is awarded to the first author of the best Italian paper of the year in experimental nanoscience.

Scholarships

- 2011-14 Collegio Superiore Student, University of Bologna, IT
 - Collegio Superiore is the Excellence Institution of Bologna University: only about one student every thousand belongs to this Institution (for more information, please visit www.collegio.unibo.it).
- 2008-11 "Collegio Universitario per le Scienze Luciano Fonda" Student, University of Trieste, IT A merit-based scholarship (for more information, please visit www.collegiofonda.it)

Invited talks & workshops

- 2022 Mach-5, 11-14 September, Plön, DE
- 2022 EuChemS, 29 August, 1 September, Lisbon, PT
- 2022 IUMRS-ICYRAM2022, 3-6 August Fukuoka (hybrid), JP
- 2022 Foresight Institute "Designing Molecular Machines" workshop, 9-10 July, San Francisco, USA
- 2022 StraSoft22, 2 3 June, Strasbourg, FR
- 2022 1st International Supramol. Chemistry Summer School, 29 May 2 June, Santa Margherita di Pula, IT
- 2022 Topical School in Photochemistry, Light-driven molecular machines, 23 25 May, Strasbourg, FR
- 2022 Topical School in Photochemistry, Photochromic compounds, 23 25 May, Strasbourg, FR
- 2022 Physics of Life Summer School, 25 29 April, Edinburgh, UK
- 2021 Dream Chemistry Award, 6 7 December, Prague, CZ
- 2021 Systems Chemistry Virtual Symposium 2021, 7 9 July, online
- 2019 National Congress of the Organic Chemistry Division of the Italian Chemical Society, 8 12

September, Torino, IT

- 2019 "Self-assembly away from equilibrium", Modena Award, 3 May, Padova, IT
- 2018 National Congress of Inorganic Chemistry, 10 13 September, Bologna, IT
- 2017 Italian Photochemistry Meeting, 14 16 December, Perugia, IT
- 2017 CV clinic Day, 10 April, Bologna, IT
- 2016 EuCheMS Chemistry Congress, 14 September, Sevilla, ES
- 2015 Nanotechltaly, November 25 28, Bologna, IT

Besides invited talks, I participated to 16 conferences, presenting 9 contributed talks and 6 posters (3 poster prizes awarded, on 3 different topics).

Talks given at Institutes

- 2022 University of Edinburgh, Edinburgh, UK, 28 April
- 2021 Institut Le Bel, Strasbourg, FR, 22 October
- 2020 Institut de Science et d'Ingénierie Supramoléculaires, Strasbourg, FR 12 October
- 2019 University of Luxembourg, Luxembourg, LU, 23 September
- 2019 Institut de Science et d'Ingénierie Supramoléculaires, Strasbourg, FR, 20 September
- 2017 University of Trieste, Trieste, IT, 18 December
- 2016 Université de Lorraine CNRS, Nancy, FR, 3 November
- 2016 ISOF-CNR, Bologna, IT, 16 June

Research support >2M € 2020-to date. Including: ERC Starting grant 2021 "Energy transduction in kinetically asymmetric catalytic networks" • FRC ITI Chemistry of Complex Systems • NWO-VENI grant, declined. ISIS-Unistra installation grant, Grand Est Region PhD scholarship cofund • IDEX exploratory research.

Supervision of students

Postdoc: Simone Di Noja, 2022-, University of Strasbourg

PhD students: Ahmad Bachir, 2022- • Thitiporn Sangchai, 2022- • Fabiana Ciocchetti, 2021- • Simone Di Noja, 2018-2022, University of Trieste

Master students: at the University of Strasbourg Georgette Obeid 2022, Daniel Couto, 2022 • Victor Sabanza Gil, 2022 • Ahmad Bachir, 2022 • Shana Shirin Valapra, 2022; at the University of Trieste: Andrea Bogo, 2021 • Michele Cesco, 2021 • Simone Zuccolo, 2020.

In addition: informal supervision of 2 Postdocs, 2 PhD students, 2 Master students

Teaching activities

Appointed teacher

Organic Chemistry II - Laboratory course. Undergraduate degree in Science and Technology for Environment and Nature (2nd year undergraduate students). University of Trieste AY 18/19, 19/20, and 20/21, 36 hours, ca. 40 students • Systems Chemistry. Complex Systems Chemistry Graduate School (master students). University of Strasbourg AY 21/22, 22/23 2 hours, 10 students • Electrochemistry, Master in physical chemistry, University of Strasbourg AY 22/23, 6h, ca. 30 students.

Spectroscopy - exercises. Undergraduate degree in Chemistry (2nd and 3rd year undergraduate students). University of Strasbourg AY 2021/2022, 16 hours, ca. 120 students • Organic Chemistry I - exercises.

Undergraduate degree in Chemistry (1st year undergraduate students). University of Trieste AY 2018/2019 and 2019/2020, 12 hours, ca. 30 students. • Laboratory assistant for the 3rd organic chemistry lab. Undergraduate degree in Chemistry (3rd year undergraduate students). Padova University, AY 2016/2017 and 2017/2018, for a total of 83 hours. • Laboratory assistant for the general chemistry lab. Undergraduate degree in Chemistry (1st year undergraduate students). Bologna University, AY 2014/2015 and 2015/2016, for a total of 93 hours. • Laboratory assistant for the ecology and chemistry course (chemistry teaching). Undergraduate education science course (4th and 5th year undergraduate students). Bologna University, AY 2014/2015, 16 hours.

Institutional responsabilities

- 2022- Co-organizer of Royal Society of Chemistry virtual Macrocyclic and Supramolecular Chemistry Seminar Series
- 2022- Co-organizer of Systems Chemistry Virtual Symposium (international conference)

2022-Co-organizer of ISIS seminars 2021-Committee member – evaluation of Master internships, University of Strasbourg Poster judge at the Systems Chemistry Virtual Symposium 2021 2021 2021-Member of the Board of Directors – ISIS/University of Strasbourg 2021-Member of Institute Council – ISIS/University of Strasbourg Habilitations to Associate Professor conferred by the Italian Ministry of University and Research: 2021-30 - 03/C1 Organic chemistry 01/06/2021 - 01/06/2030 - 03/B1 Fundamentals of chemical sciences and inorganic systems 19/04/2021 - 19/04/2030 2020-21 Committee member – research scholarship public calls, University of Trieste Committee member – evaluation of Italian language for foreigners. University of Trieste 2019 2019 Committee member – final exam of the Master degree in Chemistry, University of Trieste 2018-21 Member of the departmental council - Department of Chemical and Pharmaceutical Sciences of the University of Trieste (IT) 2018-21 Member of the bachelor degree council - Bachelor in Science and Technology for the Environment and Nature, University of Trieste (IT)

Reviewing activity I served as a reviewer for several journals, including: Angewandte Chemie, Nature, Nature Communications, Nature Nanotechnology, Nature Reviews Chemistry, JACS.

instrument, 2019 - 2021 University of Trieste

Referent for the acquisition and maintenance of a Departmental Dynamic Light Scattering

2019-21

Memberships French Chemical Society (2022 \rightarrow) • Royal Society of Chemistry (AMRSC, 2017 \rightarrow) • Italian Chemical Society (2014 \rightarrow).