

CURRICULUM VITAE

General information

Name: **MATACHE MIHAELA**
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Education

- 2022: **Habilitation thesis – HDR of the University of Clermont-Auvergne, France.** The quality as a PhD supervisor in Chemistry was recognized by the University of Bucharest, decision no. 382/09.06.2022.
- 2005-2009: **Ph.D in Chemistry at University of Bucharest**
- 2003-2008: **B.Sc. in Economics – Accounting, Academy of Economical Sciences, Bucharest,** Faculty of Accounting and Management Information Systems
- 2003-2005: **M.Sc in Environmental Quality Control, University of Bucharest,** Faculty of Chemistry
- 1999-2003: **B.Sc in Chemistry (in English) – Organic Chemistry, University of Bucharest,** Faculty of Chemistry

Experience

- October 2023 - currently **Assoc. prof. habil.**, University of Bucharest, Faculty of Interdisciplinary Studies, Director of ISDS-UB
- February 2023 - currently **Researcher**, University of Bucharest, Faculty of Chemistry, Research Centre of Applied Organic Chemistry
- October 2015 – February 2023 **Lecturer habil.**, University of Bucharest, Faculty of Chemistry, Department of Organic Chemistry, Biochemistry and Catalysis
- November 2019 – December 2020 **Adviser** of the Romanian Minister of Education and Research on higher education and research issues, Romanian Government
- February 2005- September 2015 **Professor Assistant**, University of Bucharest, Faculty of Chemistry, Department of Organic Chemistry, Biochemistry and Catalysis
- January-March 2010 **Postdoctoral researcher** within Marie Curie Excellence Team at Technical University of Munich, Germany
- February 2012-February 2014 **Counselor** at Department of Education and Research, Romanian Presidential Administration
- September 2010-February 2012 **Head of staff** of the Romanian Minister of Education, Research, Youth and Sports, Romanian Government

Research fields

- Organic synthesis; Nitrogen-based heterocycles; Supramolecular and Dynamic Chemistry; Solid-Phase Peptide Synthesis; Activity-Based Protein Profiling, Bioorganic Chemistry
 - Publications (selection): *Tetrahedron Lett.* (4), *Dyes Pigm* (3), *Chem. Eur J.* (2), *New J. Chem.* (2), *RSC Adv.* (2), *Synthesis-Stuttgart* (4), *ChemBioChem* (2), *ACS Omega* (1), *Bioorg. Chem.* (1), *J. Org. Chem.* (1), *Adv. Synth. Catal.* (1), *J. Mater. Chem. C* (1) *Tetrahedron* (1), *Chem. Commun.* (1), *Biomacromol.* (1), *Org. Proc. Res. Develop.* (1), *ChemPlusChem* (1), *J. Mater. Chem A* (1)
Cumulated IF 147, citations (11.2025, Scopus) 790, *h* index-15 (Scopus)
- Participations to conferences and congresses 12 oral/invited conferences; >45 posters; over 30 coordinated students presentations at national students congresses

Varia

- Cambridge Certificate of Proficiency in English (CPE) - sworn translator
- Member of the Romanian Chemistry Society
- "Petru Poni" medal of the Romanian Chemical Society in 2022 for promoting chemistry in Romania
- "Costin D. Nenitescu" prize of the Romanian Academy 2014
- Member of Chemistry committee – CNCS (2020-2024)
- Reviewer for journals: *Chem. Sci.*, *Dyes Pigm.*, *RSC Adv.*, *Bioorg. Chem.*, *New J. Chem.*, *J. Mater. Chem. C*, *J. Chem. Ed.*, *Scientific Rep.*, *Rev. Rou. Chim.*, *Lett. Org. Chem*, *J. Braz. Soc. Chem.*, *ChemistrySelect*, *Synth. Commun.*, *Can. J. Chem.*, *Het. Commun.*, *Synthesis*, *Cur. Org. Synth*
- Expert for: European Commission - Horizon 2020 – Horizon Europe (2016-2024), Expert and Scientific Officer for the Romanian National Agency (UEFISCDI)/Romania, European Science Foundation/France, Foundation for Polish Science/Poland, Central Finance and Contracting Agency, Latvia
- Project management experience
 - 2015-2017 Exploring fluorescent organic ligands as functional ion sensors (ORGSENSE), **Principal Investigator**, CNCS-UEFISCDI, TE-2014-4-0808, Romania, 125.000 €, <https://orgsense.mihaelamatache.ro/>
 - 2020-2022 Novel heteroaryl-azo/hydrazone dual switchable systems (OXASWITCH), **Principal Investigator**, CNCS-UEFISCDI, TE-2019-1003, Romania, 100.000 €, <https://oxaswitch.mihaelamatache.ro/>
 - 2025-2028 - Turning tautomeric molecular switches into nanoscale molecular motors (PROTON DREAMS) - **Principal Investigator** – UEFISCDI - MAPS. 8ROCH / 01/07/2025 - <https://oppermann.chemie.unibas.ch/en/proton-dreams/>
 - 2022-2024 Synthetic Methodology for Large Scale Benfotiamine Production (BENSYNTH), **Researcher, key member** of the research team led by Dr. Daniel P. Funeriu, CCCDI-UEFISCDI, Romania, PN-III-P2-2.1-PED-2021-2529, ~ 200.000 €, <https://bensynth.unibuc.ro/>
 - 2023-2026 Novel probes for dissecting the cellular roles of lipids (ProLip), **Researcher, key member** of the research team led by Prof. Adrian Salic, PNRR/2022/C9/MCID/I8, Contract no. 760056/23.05.2023 CF 235/29.11.2022, Funding - 1,418,670 € <https://prolip.unibuc.ro/>
 - 2023-2025 Competence centre for nature-based community development, ecosystems protection and restoration in the Lower Danube Basin - NW Black Sea coast (ResPonSE). **Key member** of the management structure responsible for institutional development relationships, Principal Investigator prof. Corina Bradu, PNRR/2022/C9/MCID/I5, Contract no. 760010/30.12.2022 CF 18/16.11.2022, Funding 3.8 milion €, <https://response.unibuc.ro/>
 - 2023-2026 Regional Centre for Orientation and Guidance in Research Career in Bucharest-Ilfov region – from preuniversity system to advanced research (SciResCareer), **Executive manager**, Principal Investigator Prof. Virgil Baran, PNRR/2022/C9/MCID/I10, Contract no. 760032/23.05.2023 CF 4/16.11.2022, Funding 750.000 €, <https://scirescareer.unibuc.ro/>
- Member of the National Chemistry Olympiad Committee and member of the Romanian Team for the International Chemistry Olympiad - since 2013
- Member of the Faculty of Chemistry council (2015-2019, 2019-2023) and member of the Department Council (2015-2019, 2019-2023)
- Coordinating B.Sc/M.Sc thesis since 2005 (>20), *Eugen Ionesco postdoc scholar* 2019, PhD coordinator for 5 PhD students, member of the advisory committees of 6 PhD students according to the Romanian rules for doctoral studies, coordinator of 5 foreign visiting BSc and MSc students (France and Germany)
- Initiator of bilateral Erasmus agreements (for students and staff) with *University Blaise-Pascal of Clermont-Ferrand*, *University of Strasbourg* - 2014-2020, *University of Turin*, *State University in Moldova*, *Agricultural University of Georgia*
- Initiator of the collaboration with industrial company SC Microsin SRL

Bucharest,
November 2025

Mihaela Matache

Publications (selection):

- *Synthesis of Benzimidazol-2-ones by Oxidative Cyclisation Ring Closure of Amido-Urea Precursors*, M. Popescu, A. Hanganu, A. Paun, A. Mădălan, C.C. Anghel, C. Dobrota, **M. Matache***, C. Popescu*, *The Journal of Organic Chemistry*, **2025**, 90, 44, 15555–15566.
- *Light-Responsive Oxadiazole-Based (Hetero)aryl-azobenzenes*, B.C. Enache, A.F. Simene, A. Hanganu, C. Tablet, A.M. Mădălan, C.C. Popescu, **M. Matache***, *Synthesis-Stuttgart*, **2025**, 57(23), 3587-3598.
- *Synthesis and investigation of novel Nickel-based Metal Organic Framework*, D.M. Gheorghe, A.G. Mirea, I.M. Chirică, A.M. Mădălan, C.C. Popescu, M. Matache, D. Ciuparu, M. Florea, *Synthesis-Stuttgart*, **2025**, 57(24), 3660-3668.
- *Synthesis of dynamic N-acylhydrazone-based macrocycles*, N. Sandu, A. Hanganu, C. Popescu, A.M. Demeter, A.G. Mirea, A. Kuncser, C. Tablet, N.D. Hădade, M. Florea, D.P. Funeriu*, **M. Matache***, *J. Mater. Chem. A*, **2025**, 13, 10232-10242.
- *Insights into Large-Scale Synthesis of Benfotiamine*, A. Hanganu, M.V. Maximov, O.-C. Maximov, C.C. Popescu, N. Sandu, M. Florea, A.G. Mirea, C. Gârbea, **M. Matache***, D.P. Funeriu*, *Org. Process Res. Dev.* **2024**, 28(11), 4069–4078.
- *A Synthetic Approach for Oxadiazole-Decorated Azobenzene Photoswitches*, A.F. Dobre, A. Hanganu, I. Nicolau, C.C. Popescu, A. Paun, A.M. Mădălan, C. Tablet, A.G. Mirea, **M. Matache***, *ChemPlusChem*, **2024**, 89(2), e202300504.
- *Solid-Phase Peptide Synthesis – Evaluation of Resin Loading and Preparation of an Amide C-Terminal Dipeptide*, I. Nicolau, A. Paun, C.C. Popescu, N.D. Hădade, **M. Matache***, *J. Chem. Educ.* **2023**, 100, 2430–2434.
- *Synthetic approaches of epoxysuccinate chemical probes*, I. Nicolau, N.D. Hadade, **M. Matache***, D.P. Funeriu*, *ChemBioChem*, **2023**
- *Shifting emission of oxadiazoles via inter- or intramolecular hydrogen bonding*, C.C. Anghel, A.G. Mirea, C.C. Popescu, A.M. Mădălan, A. Hanganu, A. Bende, N.D. Hădade*, **M. Matache***, M. Andruh*, *Dyes Pigm.* **2023**, 210, 111023.
- *Exploring arylazo-3,5-bis(trifluoromethyl)pyrazoles switches*, B.C. Enache, A. Hanganu, C. Tablet, C.C. Anghel, C.C. Popescu, A. Paun, N.D. Hădade, A.M. Mădălan, **M. Matache***, *ACS Omega*, **2022**, 7, 39122–39135.
- *Two are better than one - Synthesis of novel blue and green emissive hydroxy-oxadiazoles*, C.C. Anghel, C. Bădescu, A.G. Mirea A.Păun, N.D. Hădade, A.M. Mădălan, **M. Matache***, C.C. Popescu*, *Dyes Pigm.* **2022**, 197, 109927.
- *Terbium-functionalized silica nanoparticles for metal ion sensing by fluorescence quenching*, M.C. Stoian, I. Mihalache, **M. Matache***, M. A. Radoi*, *Dyes Pigm.* **2021**, 187, 109144.
- *A polycarboxylic chelating ligand for efficient resin purification of His-tagged proteins expressed in mammalian systems*, C.C. Popescu, M.C. Stoian, L.-M. Cucos, A.G. Coman, A. Radoi, A. Paun, N.D. Hădade, A. Gautier, C.I. Popescu*, **M. Matache***, *RSC Adv.* **2020**, 10, 23931-23935.
- *A novel adaptive fluorescent probe for cell labelling*, A.G. Coman, A. Paun, C.C. Popescu, N.D. Hădade, A. Hanganu, G. Chiritoiu, I.C. Farcasanu*, **M. Matache***, *Bioorg. Chem.* **2019**, 92, 103295.
- *A novel profluorescent paramagnetic diaza-crown ether: Synthesis, characterization and alkaline metal-ion complexation*, A.G. Coman, C. Stavarache, A. Paun, C.C. Popescu, N.D. Hădade, P. Ionita*, **M. Matache***, *RSC Adv.* **2019**, 9, 6078-6083.
- *Conformation-induced light emission switching of N-acylhydrazone systems*, A.G. Coman, A. Paun, C.C. Paraschivescu, N.D. Hădade, C.C. Anghel, A.M. Madalan, P. Ionita, **M. Matache***, *New J. Chem.* **2018**, 42, 14111-14119.
- *Naphthalenediimide – A Unique Motif in Macrocyclic and Interlocked Supramolecular Structures* A. Diac, **M. Matache**, I. Grosu, N.D. Hădade, *Adv. Synth. Catal.* **2018**, 360, 817–845.
- *A novel 1-D coordination polymer constructed from disilver-1,3,4-oxadiazole nodes and perchlorato bridges*, C. Anghel, **M. Matache***, C.C. Paraschivescu, A.M. Madalan, M. Andruh*, *Inorg. Chem. Commun.* **2017**, 76, 22-25.
- *Synthesis of novel profluorescent nitroxides as dual luminescent-paramagnetic active probes*, A.G. Coman, C.C. Paraschivescu, A. Paun, A. Diac, N. D. Hadade, L. Jouffret, A. Gautier, **M. Matache***, P. Ionita*, *New J. Chem.*, **2017**, 41, 7472--7480.

- *1,3,4-Oxadiazoles as luminescent materials for organic light emitting diodes via cross-coupling reactions*, A. Paun, C.C. Paraschivescu, N.D. Hadade, **M. Matache***, *J. Mater. Chem. C* **2016**, 4, 8596-8610.
- *Synthesis of New Alkynyl-Bridged 2,5-Disubstituted 1,3,4-Oxadiazoles*, A. Păun, C.C. Paraschivescu, **M. Matache***, V.I. Pârvulescu*, *Synthesis-Stuttgart* **2016**, 48, 606-614.
- *New Acyloxymethyl Ketones - Useful Probes for Cysteine Protease Profiling*, A.G. Coman, C.C. Paraschivescu, N.D. Hadade, A. Juncu, O. Vlaicu, C.-I. Popescu, **M. Matache***, *Synthesis-Stuttgart* **2016**, 48, 3917-3923.
- *A convenient alternative for the selective oxidation of alcohols by silica supported TEMPO using dioxygen as the final oxidant*, A.J. Shakir, C. Paraschivescu, **M. Matache**, M. Tudose, A. Mischie, F. Spafiu, P. Ionita, *Tetrahedron Lett.* **2015**, 56, 6878-6881.
- *Convenient synthesis of 2-alkynylbenzazoles through Sonogashira cross-coupling reaction between thioethers and terminal alkynes* A. Păun[‡], **M. Matache[‡]**, F. Enache, I. Nicolau, C.C. Paraschivescu, P. Ioniță, I. Zarafu, V.I. Pârvulescu, G. Guillaumet, *Tetrahedron Lett.* **2015**, 56, 5349–5352.
- *Symmetrical and non-symmetrical 2,5-diaryl-1,3,4-oxadiazoles: synthesis and photophysical properties*, C.C. Paraschivescu, N.D. Hădade, A.G. Coman, A. Gautier, F. Cisnetti, **M. Matache***, *Tetrahedron Lett.* **2015**, 56, 3961-3964.
- *Selective host molecules obtained by Dynamic Adaptive Chemistry*, **M. Matache[‡]**, E. Bogdan, N.D. Hădade, *Chem. Eur. J.* **2014**, 20, 2016–2131. *Awarded the Romanian Academy prize "Costin D. Nenitzescu"*.
- *Luminogenic "clickable" lanthanide complexes for protein labelling*, N. Candelon, N.D. Hadade, **M. Matache**, J.-L. Canet, F. Cisnetti, D.-P. Funeriu, L. Nautonae, A. Gautier, *Chem. Commun.* **2013**, 49, 9206–9208.
- *Unexpected formation of N-(1-(2-aryl-hydrazono)isoindolin-2-yl)benzamides and their conversion into 1,2-(bis-1,3,4-oxadiazol-2-yl)benzenes*, C. Paraschivescu, **M. Matache***, C. Dobrotă, A. Nicolescu, C. Maxim, C. Deleanu, I.C. Fărcășanu, N.D. Hădade*, *J. Org. Chem.* **2013**, 78, 2670–2678.
- *A general solid phase method for the synthesis of sequence independent peptidyl-fluoromethyl ketones*, G.-D. Roiban, **M. Matache**, N.D. Hădade, D.-P. Funeriu, *Org. Biol. Chem.* **2012**, 10, 4516-4523 (**cover**).
- *Glycine Fluoromethylketones as SENP-Specific Activity Based Probes*, C. Dobrotă, D. Fasci, N.D. Hădade, G.-D. Roiban, C. Pop, V.M. Meier, I. Dumitru, **M. Matache**, G.S. Salvesen, D.-P. Funeriu, *ChemBioChem* **2012**, 13, 80–84.
- *Metal Ion Mediated Self-Assembly Directed Formation of Protein Arrays*, N.D. Bogdan[‡], **M. Matache[‡]**, G.-D. Roiban, C. Dobrotă, V.M. Meier, D.-P. Funeriu, *Biomacromolecules* **2011**, 12, 3400–3405.
- *Recent Developments in the Reactivity of the Biginelli Compounds*, **M. Matache[‡]**, C. Dobrotă, N.D. Bogdan, D.-P. Funeriu, *Curr. Org. Synth.* **2011**, 8, 356–373.
- *Expedient access to fused quinoxalines via Dess-Martin periodinane-mediated cyclization of unsymmetrical phenylenediamide derivatives*, C. Dobrotă, J. Graeupner, I. Dumitru, **M. Matache**, C.C. Paraschivescu, *Tetrahedron Lett.* **2010**, 51, 1262–1264.
- *Protein-inorganic arrays construction: design and synthesis of the building blocks*, N.D. Bogdan[‡], **M. Matache[‡]**, V.M. Meier, C. Dobrotă, I. Dumitru, G.D. Roiban, D.-P. Funeriu, *Chem. Eur. J.* **2010**, 16, 2170–2180.
- *Synthesis of fused dihydro-pyrimido[4,3-d]coumarins using Biginelli multicomponent reaction as key step*, **M. Matache[‡]**, C. Dobrotă, N.D. Bogdan, I. Dumitru, L.L. Ruță, C.C. Paraschivescu, I.C. Fărcășanu, I. Baci, D.-P. Funeriu, *Tetrahedron* **2009**, 65, 5949–5957.
- *Convenient preparation of unsymmetrical 2,5-disubstituted 1,3,4-oxadiazoles promoted by Dess-Martin reagent*, C. Dobrotă, C.C. Paraschivescu, I. Dumitru, **M. Matache**, I. Baci, L.L. Ruta, *Tetrahedron Lett.* **2009**, 50, 1879–1881.