

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 2025- currently **Assoc. Prof.** University of Bucharest, Faculty of Interdisciplinary Studies, Director of Interdisciplinary School of Doctoral Studies (ISDS-UB)
- February 2023 - currently **Researcher.**, University of Bucharest, Faculty of Chemistry, Research Centre for 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.* (2), *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 150, citations (11.2025, Scopus) 780, *h* index-15 (Scopus)
- Participations to conferences and congresses 12 oral/invited conferences; >45 posters; over 30 coordinated students presentations at national students congresses

- 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
- Reviewer for journals: *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/>
 - 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 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, Agrigultural Univeristy of Georgia*
- Initiator of the collaboration with industrial company SC Microsin SRL

Bucharest,
September 2026

Mihaela Matache

Publications (selection):

- *A Compact and Robust Scaffold for Visible Light-Actuated Photoswitching*, B.C. Enache, A. Hanganu, C. Tablet, A.M. Madalan, C.C. Popescu, **M. Matache***, *J. Org. Chem.* **2026**, minor revision
- *Synthesis of aryl-azo pyrazino-triazapentalenes and study of their photoswitching*, M. Popescu, A. Hanganu, B.C. Enache, C. Tablet, A.M. Madalan, A. Paun, C.C. Popescu, O. Bourzikat, M.-A. Hiebel, F. Suzenet, **M. Matache***, *Chem. Eur. J.* **2026**, DOI: 10.1002/chem.71668
- *N-acylhydrazone motif in construction of macrocyclic and polymeric architectures*, N. Sandu, A.G. Mirea, A. Hanganu, C. Popescu, M. Florea, **M. Matache***, *J. Mater. Chem. A*, **2026**, DOI: 10.1039/D6TA04056J
- *Stoichiometric glutathione stops Cu-catalyzed Azide-Alkyne Cycloaddition (CuAAC) reactions with Cu-chelating azides*, I. Doumi, R. Kushwaha, N. Sandu, C. Popescu, **M. Matache**, A. Salic, P. Faller, *Chem. Commun.* **2026**, DOI: 10.1039/d6cc03119f
- *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*, *J. Org. Chem.* **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 of dynamic N-acylhydrazone-based macrocycles*, N. Sandu, A. Hanganu, C. Popescu, A.M. Demeter, A.G. Mirea, A. Kuncser, C. Tăblet, 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. Hădade, **M. Matache***, D.P. Funeriu*, *ChemBioChem*, **2023**, e202300157.
- *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.