ACADEMIA ROMANA - Institutul de Chimie Macromoleculara "Petru Poni", Iasi
Candidat: CS II dr. Alexandru Rotaru

ACTIVITATE STIINTIFICA

2000-2024

TEZA DE DOCTORAT

„Sinteza de indolizine fluorescente"

autor: Alexandru Rotaru

indrumator: Dr. Ioan Druta, Universitatea "Al. I. Cuza", Iasi,

OM 3824/03.05.2006

Lista de lucrari

1. Articole publicate in extenso in reviste de specialitate de circulatie internationala recunoscute (reviste cotate ISI)	
1.1	M. C. Sardaru, I. Rosca, C. Ursu, A. I. Dascalu, E. L. Ursu, S. Morariu, **A. Rotaru*** Photothermal Hydrogel Composites Featuring G4-Carbon Nanomaterial Networks for Staphylococcus aureus Inhibition. *ACS Omega*, 9(14) 15833-15844 (**2024**).
1.2	I. Klemt, O. Varzatskii, R. Selin, S. Vakarov, V. Kovalska, G. Bila, R. Bilyy, Y. Voloshin, I. Cossío Cuartero, A. Hidalgo, B. Frey, I. Becker, B. Friedrich, R. Tietze, R. P. Friedrich, C. Alexiou, E.-L. Ursu, **A. Rotaru**, I. Solymosi, M. E. Pérez-Ojeda, A. Mokhir. 3D-Shaped Binders of Unfolded Proteins Inducing Cancer Cell-Specific Endoplasmic Reticulum Stress *In Vitro* and *In Vivo*. *Journal of the American Chemical Society* 145, 40, 22252-22264 (**2023**).
1.3	M. C. Sardaru, N. L. Marangoci, R. Palumbo, G. N. Roviello, **A. Rotaru***. Nucleic Acid Probes in Bio-Imaging and Diagnostics: Recent Advances in ODN-Based Fluorescent and Surface-Enhanced Raman Scattering Nanoparticle and Nanostructured Systems. *Molecules*, *28*, 3561, (**2023**).
1.4	M. C. Sardaru, S. Morariu, O. E. Carp, E. L. Ursu, **A. Rotaru*** and M. Barboiu. Dynameric G-quadruplex-dextran hydrogels for cell growth applications. *Chem. Commun.*, *59*, 3134, (**2023**).
1.5	R. Ghiarasim, C. Tiron, A. Tiron, M.-G. Dimofte, M. Pinteala, **A. Rotaru***. Solid-phase synthesized copolymers for the assembly of pH-sensitive micelles suitable for drug delivery applications. *Nanomaterials*, *12*, 1798/1-18 (**2022**).
1.6	M. C. Sardaru, I. Rosca, S. Morariu, E. L. Ursu, R. Ghiarasim, **A. Rotaru***. Injectable Thixotropic β–Cyclodextrin–functionalized Hydrogels Based on Guanosine Quartet Assembly. *Int. J. Mol. Sci.*, 22, 9179 (**2021**).
1.7	D. Aristova, V. Kosach, S. Chernii, A. Balanda, Y. Slominsky, V. Filonenko, S. Yarmoluk, **A. Rotaru**, A. Mokhir, V. Kovalska. Monomethine cyanine probes for visualization of cellular RNA by fluorescence microscopy. *Methods and Applications in Fluorescence* . 9, 045002 (**2021**).

1.8	A. M. Craciun, **A. Rotaru**, C. Cojocaru, I. I. Mangalagiu, R. Danac. New 2,9-disubstituted-1,10-phenanthroline derivatives with anticancer activity by selective targeting of telomeric G-quadruplex DNA. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy.* (249), 119318, (**2021**).
1.9	D. Bejan, L. G. Bahrin, C. Cojocaru, A. F. Trandabat, N. L. Marangoci, **A. Rotaru**, S. Shova. The use of C1 symmetry imidazole-carboxylate building block and auxiliary acetate co-ligand for assembly of 2d wave-like zinc(II) coordination polymer: experimental and theoretical study. *Journal of Coordination Chemistry, 73(16)*, 2250-2264, (**2020**).
1.10	E. L. Ursu, G. Gavril, S. Morariu. M. Pinteala, M. Barboiu, **A. Rotaru***. Single-walled carbon nanotubes–G-quadruplex hydrogel nanocomposite matrixes for cell support applications. *Materials Science & Engineering C, 111*, 110800, (**2020**).
1.11	M. C. Sardaru, O. Carp, E. Ursu, A. Craciun, C. Cojocaru, M. Silion, V. Kovalska, I. Mangalagiu, R. Danac, **A. Rotaru***. Cyclodextrin encapsulated pH sensitive dyes as fluorescent cellular probes: self-aggregation and in vitro assessments. *Molecules, 25(19)*, 4397, (**2020**).
1.12	E. L. Ursu, I. Rosca, L G. Bahrin, L. Clima, D. Bejan, M. C. Sardaru, N. Marangoci, V. Lozan, **A. Rotaru***. Aqueous dispersion of single-walled carbon nanotubes using tetraphenyl bimesitylene derivative via noncovalent modification and improved antimicrobial activity. *Journal of Nanoscience and Nanotechnology, 19*, 7960, (**2019**).
1.13	L. G. Bahrin, L. Clima, S. Shova, I. Rosca, C. Cojocaru, D. Bejan, M. C. Sardaru, N. L. Marangoci, V. Lozan, **A. Rotaru***. Synthesis, structure, computational modeling and biological activity of two novel bimesitylene derivatives. *Research on Chemical Intermediates, 45*, 453, (**2019**).
1.14	T. Vasiliu, C. Cojocaru, D. Peptanariu, A. I. Dascalu, M. Pinteala, **A. Rotaru***. Polyplex formation between cyclodextrin-based non-viral vector and dsDNA: molecular dynamic study with experimental validation. *Rev. Roum. Chim., 63(7-8)*, 629, (**2018**).
1.15	L. G. Bahrin, I. Rosca, L. Clima, S. Shova, D. Bejan, A. Nicolescu, N. L. Marangoci, M. C. Sardaru, V. Lozan, **A. Rotaru***. Zinc(II) coordination polymer on the base of 3'-(1H-tetrazol-5-yl)-[1,1'-biphenyl]-4-carboxylic acid: Synthesis, crystal structure and antimicrobial properties. *Inorganic Chemistry Communications, 92*, 60, (**2018**).
1.16	G. Pricope, M. Sardaru, E. L. Ursu, C. Cojocaru, L. Clima, N. Marangoci, R. Danac, I. Mangalagiu, B. C. Simionescu, M. Pinteala, **A. Rotaru***. Novel pH-sensitive supramolecular host-guest assembly for staining cell acidic organelles. *Polymer Chemistry, 9*, 968, (**2018**).
1.17	**A. Rotaru**, G. Pricope, T. Planck, L. Clima, E. L. Ursu, M. Pinteala, J. Davis, M. Barboiu. G-quartet hydrogels for effective cell growth applications. *Chemical Communications, 53*, 12668, (**2017**).
1.18	T. Vasiliu, C. Cojocaru, **A. Rotaru**, G. Pricope, M. Pinteala, L. Clima. Optimization of polyplex formation between DNA oligonucleotide and poly(L-Lysine): experimental study and modelling approach. *Int. J. Mol. Sci., 18*, 1291, (**2017**).
1.19	E. L. Ursu, F. Doroftei, D. Peptanariu, M. Pinteala, **A. Rotaru***. DNA-assisted decoration of single-walled carbon nanotubes with gold nanoparticles for applications in surface-enhanced Raman scattering imaging of cells.

	J. Nanopart. Res., 19, 181, (**2017**).
1.20	N. L. Marangoci, L. Popovici, E. L. Ursu, R. Danac, L. Clima, C. Cojocaru, A. Coroaba, A. Neamtu, I. Mangalagiu, M. Pinteala, **A. Rotaru***. Pyridyl-indolizine derivatives as DNA binders and pH-sensitive fluorescent dyes. *Tetrahedron, 50*, 8215, (**2016**).
1.21	I. Kocsis, **A. Rotaru**, Y. M. Legrand, I. Grosu, M. Barboiu. Supramolecular rulers enabling selective detection of pure short ssDNA via chiral self-assembly. *ChemComm., 52*, 386, (**2016**).
1.22	Z. Sun, M. Barboiu, Y. M. Legrand, E. Petit, **A. Rotaru**. Highly selective artificial cholesteryl crown ether K+-channels. *Angew. Chem. Int. Ed., 48*, 14681, (**2015**).
1.23	E. L. Ursu, L. Clima, C. Hejesen, **A. Rotaru***, M. Pinteala. DNA-mediated copper nanoparticle formation on dispersed single-walled carbon nanotubes. *Helvetica Chimica Acta, 98(8)*, 1141, (**2015**).
1.24	L. Clima, E. L. Ursu, C. Cojocaru, **A. Rotaru***, M. Barboiu, M. Pinteala. Experimental design, modeling and optimization of polyplex formation between DNA oligonucleotide and branched polyethylenimine. *Organic & Biomolecular Chemistry. 13*, 9445, (**2015**).
1.25	R. Catana, M. Barboiu, I. Moleavin, L. Clima, **A. Rotaru**, L. E. Ursu, M. Pinteala. Dynamic constitutional frameworks for DNA biomimetic recognition. *ChemComm. 51(11)*, 2021, (**2015**).
1.26	Keller, J. Rackwitz, W. Cauet, J. Lievin, T. Korzdorfer, **A. Rotaru**, K. V. Gothelf, F. Besenbacher, I. Bald. Sequence dependence of electron-induced DNA strand breakage revealed by DNA nanoarrays. *Scientific Reports. 4*, 7391, (**2014**).
1.27	**A. Rotaru**, C. Cojocaru, I. Cretescu, M. Pinteala, D. Timpu, L. Sacarescu, V. Harabagiu. Performances of clay aerogel polymer composites for oil spill sorption: Experimental design and modelling. *Separation and Purification Technology, 133*, 260, (**2014**).
1.28	K. Busuttil, **A. Rotaru**, M. Dong, F. Besenbacher, K. V. Gothelf. Transfer of protein pattern from self-assembled DNA origami to a functionalized substrate. *ChemComm, 49*, 1927, (**2013**).
1.29	C. Cojocaru, **A. Rotaru**, V. Harabagiu, L. Sacarescu. Molecular structure and electronic properties of pyridylindolizine derivative containing phenyl and phenacyl groups: Comparison between semi-empirical calculations and experimental studies. *Journal of the Molecular Structure, 1034*, 162, (**2013**).
1.30	A. Keller, I. Bald, **A. Rotaru**, E. Cauet, K. V. Gothelf, F. Besenbacher. Probing electron-enduced bond cleavage at the single-molecule level using DNA origami template. *ACS Nano, 6*, 4392, (**2012**).
1.31	R. Danac, R. Rusu, **A. Rotaru**, A. Pui, S. Shova. New conjugates of calix[4]arenes bearing dipyridine and indolizine heterocycles. *Supramolecular Chemistry, 6*, 424, (**2012**).
1.32	**A. Rotaru**, K. V. Gothelf. Steps towards automated synthesis. *Nature Nanotechnology, 5*, 760, (**2010**).
1.33	S. Helmig, **A. Rotaru**, D. Arian, J. Arnbjerg, P. Ogilby, J. Kjems, A. Mokhir, F. Besenbacher, K. V. Gothelf. Single molecule AFM studies of photosensitized singlet oxygen behavior on a DNA origami template.

	ACS Nano, 4(12), 7475, (**2010**).
1.34	R. Subramani, S. Juul, **A. Rotaru**, F. Andersen, K. Gothelf, W. Mamdouh, F. Besenbacher, M. Dong, B. Knudsen. A novel secondary DNA binding site in human topoisomerase i unraveled by using a 2d DNA origami platform. *ACS Nano, 4(10)*, 5969, (**2010**).
1.35	**A. Rotaru**, S. Dutta, E. Jentzsch, K. V. Gothelf, A. Mokhir. Selective dsDNA-templated formation of copper nanoparticles in solution. *Angewandte Chemie, 49*, 5665, (**2010**).
1.36	N. V. Voigt, T. Tørring, **A. Rotaru**, M. F. Jacobsen, J. B. Ravnsbæk, R. Subramani, W. Mamdouh, J. Kjems, A. Mokhir, F. Besenbacher, K. V. Gothelf. Single molecule chemical reactions on DNA origami. *Nature Nanotechnology, 5,* 200, (**2010**).
1.37	**A. Rotaru**, E. Avram, I. Druta, R. Danac. Synthesis and properties of fluorescent 1,3-substituted mono and biindolizines. *Arkivoc, 13*, 1-13, (**2009**).
1.38	L. Leontie, I. Druta, **A. Rotaru**, N. Apetroaei, G. I. Rusu. Electronic transport properties of some new monoquaternary salts of 4,4-bipyridine in thin films. *Synthetic Metals, 159*, 642, (**2009**).
1.39	**A. Rotaru**, J. Kovacs, A. Mokhir. Red light activated phosphorothioate oligodeoxyribonucleotides. *Bioorganic & Medicinal Chemistry Letters, 18(15)*, 4336, (**2008**).
1.40	**A. Rotaru**, A. Mokhir. "Caged" nucleic acid binders, which can be activated by green or red light. *Angewandte Chemie, 119(32)*, 6293, (**2007**).
1.41	L. Leontie, I. Druta, **A. Rotaru**, C. Podaru, G. Rusu. On the electronic transport properties of 4,4'-bipyridinium dibromides in thin films. *Materials Chemistry and Physics, 97(2-3)*, 476, (**2006**).
1.42	**A. Rotaru**, I. Druta, T. Oeser, T. J.J. Müller. Novel coupling-1,3-dipolar cycloaddition sequence as a three-component approach to highly fluorescent indolizines. *Helvetica Chimica Acta, 88 (7)*, 1798, (**2005**).
1.43	**A. Rotaru*,** R. Danac, I. Druta. Synthesis of new non-symmetrical substituted 7,7'-bisindolizines by the direct reaction of 4,4'-bipyridinium-ylides with dimethyl acetylenedicarboxylate. *Journal of Heterocyclic Chemistry, 41*, 893, (**2004**).
1.44	R. Danac, M. Constantinescu, **A. Rotaru,** C. Ghirvu, I. Druta. Synthesis of novel 4,5-diazafluoren-9-one derivatives and theoretical study of 3+2 cycloaddition reactions. *Journal of Heterocyclic Chemistry, 41*, 983, (**2004**).
1.45	R. Danac, **A. Rotaru,** G. Drochioiu, I. Druta. Synthesis of novel phenanthroline derivatives by 3+2 dipolar cycloadition reaction. *Journal of Heterocyclic Chemistry, 40*, 283, (**2003**).
1.46	**A. Rotaru,** M. Ungureanu, R. Danac, A. Poeata, I. Druta. *Annales Pharmaceutiques Francaises, 62(6)*, 428, (**2004**).
1.47	**A. Rotaru,** R. Danac, I. Druta, G. Drochioiu, I. Cretescu. The synthesis and the biological activity of diquaternary salts derivatives of 4,4'-bipyridyl. *Revista de Chimie, 56*, 179, (**2005**).
1.48	R. Danac, M. Constantinescu, **A. Rotaru**, A. Vlahovici, I. Cretescu, I. Druta. Study of dipolar 3+2 cycloaddition reaction of 1,10-phenanthrolinium ylides to activated alkenes. *Revista de Chimie, 56*, 85, (**2005**).

1.49	D. Bejan, N. L. Marangoci, **A. Rotaru**, A. F. Trandabat, L. G. Bahrin. 2,4,6-Tris(4-Iodophenyl)-1,3,5-trimethylbenzene; *Molbank* 1, M1121 (**2020**).
1.50	M. Irimia, M. Murariu, N. Aelenei, **A. Rotaru,** G. Drochioiu. Toxic effect of some new dicuaternary salts of 4,4'-bipyridyl on wheat. *Roumanian Biotechnological Letters, 8(5-6),* 1415, (**2003**).
2	**Capitole in carti**
2.1	E. L. Ursu, **A. Rotaru***. Supramolecular Guanosine-Quadruplex Hydrogels and Hydrogel Composites for Cell Growth Applications. *New Trends in Macromolecular and Supramolecular Chemistry for Biological Applications*, (Eds.) M. J. M. Abadie, M. Pinteala, A. Rotaru. Springer Nature Switzerland, 331-348, (**2021**).
2.2	M. Silion, A. Fifere, A. L. Lungoci, N. L. Marangoci, S. A. Ibanescu, R. Zonda, **A. Rotaru**, M. Pinteala. Mass spectrometry as a complementary approach for noncovalently bound complexes based on cyclodextrins. *Advancements of Mass Spectrometry in Biomedical Research*, 2nd ed., (Eds.) A. G. Woods, C. D. Darie, Springer, pp. 685-701, **(2019).**
2.3	**A. Rotaru**, L. Clima, R. D. Rusu, N. L. Marangoci, G. Pricope, B. C. Simionescu and M. Pinteala, Polymer-based engineered systems for gene/drug delivery applications. *Compounds and Materials for Drug Development and Biomedical Applications*, Gh. Duca, F. Macaev, Editura Academiei Romane, Muzeul Brailei « Carol I » Editura Istros, Bucuresti-Braila, pp. 273-290, **(2018).**
3	**Carti**
3.1	*New Trends in Macromolecular and Supramolecular Chemistry for Biological Applications*. Editors: M. J. M. Abadie, M. Pinteala, **A. Rotaru**. Editura Springer Nature Switzerland, 371 p (**2021**).
4	**Comunicari**
4.1	**A. Rotaru**. *Self-assembled DNA nanostructures: principles and a rout to single-molecule level investigations*. International scientific conference „science and education: New approaches and perspectives", 24-25.03.2023, Chisinau, Republic of Moldova.
4.2	**A. Rotaru** *Supramolecular assemblies for cell staining and cell support applications.* New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, 28-29.06.2018, Timisoara, Romania
4.3	**A. Rotaru**. *Supramolecular assemblies for cell stain applications.* 1st Bucharest Polymer Conference, 06 – 08.06.2018. Bucuresti, Romania.
4.4	**A. Rotaru.** *Cell Imaging: from new non-toxic Fluorescent Dyes to Raman Probes based on Metal Nanoparticles – Carbon Nanotube Nanoconjugates.* Nineth Cristofor I. Simionescu Symposium Frontiers in Macromolecular and Supramolecular Science, June 13-14, 2017, Iasi, Romania.
4.5	**A. Rotaru**. *Self-Assembled DNA Nanostructures: Principles and Applications.*

	Fifth Cristofor I. Simionescu Symposium Frontiers in Macromolecular and Supramolecular Science, June 10-11, 2012, Bucharest, Romania.
4.6	**A. Rotaru**. *DNA Nanostructures: a rout for single molecule level studies.* International Workshop "Nanoparticles and Complex Nanostructures for Biotechnology, Biomedicine and Microfluidics", June 21-22, 2012, Timisoara, Romania.
4.7	**A. Rotaru**, V. Ciornea. *Nanotuburi de carbon cu un singur perete decorate cu nanoparticule de aur pentru aplicații în imagistica raman a celulelor.* Conferința ştiinţifico-practice internaționale „Educație prin cercetare pentru o societate prosperă", Ediția a X-a, 18 – 19 martie 2023. Chisinau, Republica Moldova.
4.8	E.-L. Ursu, M. Pinteala, B. C. Simionescu, **A. Rotaru**. *Cells and intracellular organelles imaging using supramolecular fluorescent probes or single-walled carbon nanotubes hybrid assemblies.* Biodynamics - A Transdisciplinary Approach, Bucharest, Romania, 19-21.05, 2022.
4.9	E. L. Ursu, A. Trandabat, **A. Rotaru**. *Carbon based nanomaterials-DNA-Gold nanoparticles hybrid nanomaterials for SERS bioimaging.* International Conference: Progress in Organic and Macromolecular Compounds, 28th Edition. 07-09.2021, Iasi, Romania.
4.10	**A. Rotaru.** *DNA-Assisted Decoration of Single-Walled Carbon Nanotubes with Metal Nanoparticles.* 20th Romanian International Conference on Chemistry and Chemical Engineering, September 6-9, 2017, Poiana Brasov, Romania.
4.11	**A. Rotaru.** *Supramolecular systems for biomedical applications.* 1st International Workshop "PROTEOMICS – from Introduction to Clinical Applications", July 9-13, 2017, Iasi, Romania.
4.12	**A. Rotaru,** *Novel "Caged" Nucleic Acid Binders Activated by Light of Variable Wavelength.* Seventh Cristofor I. Simionescu Symposium Frontiers in Macromolecular and Supramolecular Science, June 4-5, 2015, Iasi, Romania.
4.13	**A. Rotaru**. *Design, assembly and visualization by AFM of chemical modifications on DNA origami nanostructures.* Biomolecular nanostructures for the study of biophysical and biochemical processes, October 08 – 09, 2015, Potsdam, Germany.
4.14	**A. Rotaru**. *Self-Assembled DNA Nanostructures: Single Molecule AFM Studies and Protein Pattern Transfer on Functionalized Substrate.* Sixth Cristofor I. Simionescu Symposium Frontiers in Macromolecular and Supramolecular Science, June 11-12, 2013, Iasi, Romania.
4.15	R. Ghiarasim, C. Tiron, A. Tiron, M.-G. Dimofte, M. Pinteala and **A. Rotaru**. *Solid-phase synthetic copolymers for the assembly of pH-sensitive micelles suitable for drug delivery applications.*

	Conferința Națională de Chimie, CNChim-2022, ediția a XXXVI-a, Călimănești – Căciulata, România. 04 – 07.10.2022.
4.16	**A. Rotaru**. *Sisteme supramoleculare pentru aplicații biomedicale*. Conferința Cercetării Științifice din Academia Română (CCSAR-2021), 22 – 23.11.2021. Bucuresti, Romania.
4.17	**A. Rotaru**. *Influenta mobilitatilor internationale in dezvoltarea unei cariere stiintifice de succes*. EURAXESS Roadshow – Opurtunitati de cariera in cercetare la nivel European, Noiembrie 9, 2015, Iasi, Romania.
4.18	**A. Rotaru**. *Functional DNA Nanostructures*. Summer School STREAM, July 8-13, 2013, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania.
5	**Granturi cu finanșare din străinătate**
5.1	EEA-RO-NO-2018-0246, *Restore Her2 dependent sensibility using AXL inhibitors packed in pH dependent nanostructures*. Durata: 01.02.2021 – 31.12.2023. Valoare: 134.750 Euro **Responsabil partener:** Dr. Alexandru Rotaru
5.2	H2020-MSCA-RISE – 2019, *Non-biased fluorescent dyes as markers of drugs for optical in cellulo and in vivo imaging*. Durata: 01.01.2020 – 31.12.2024. Valoare: 59,202 Euro **Responsabil partener**: Dr. Alexandru Rotaru
5.3	Project full title: "*Strengthening the Romanian research capacity in Multifunctional Polymeric Materials*" – STREAM. FP7-REGPOT-2010-1 Grant Agreement no: 264115 Durata: 01.02.2012 – 31.12.2013. Valoare: 2,7 M EUR. Director proiect: *Dr. Valeria Harabagiu* **Membru proiect.**
5.4	Horizon 2020 WIDESPREAD 2-2014: ERA Chairs. "*Laboratory of Supramolecular Chemistry for Adaptive Delivery Systems*" – SUPRACHEM Lab. Project no.667387. Durata: 01.02.2016 – 31.01.2020. Valoare: 2,5 M EUR. Director proiect: *Dr. Mariana Pinteala* **Membru proiect, lider de grup.**
5	**Granturi din tara:**
5.5	UEFISCDI: "Prepararea nanostructurilor functionale pe baza de ADN si nanoparticule de aur pentru terapie genica tintita", Cod: PN-II-RU-TE-2014-4-1444. Durata: 01.10.2015 – 31.09.2017.

	Valoare: 550 000 RON (125 000 EUR). **Director proiect:** *Dr. Alexandru Rotaru*
5.6	UEFISCDI: "Sisteme de Inspiraţie Biologică pentru Entităţi Proiectate Structural si Funcţional", Cod: PN-II-ID-PCCE-2011-2-0028 / Contract nr. 4/2012. Durata: 01.05.2014 – 31.12.2014. Valoare: 6.999.150 RON Director proiect: *Dr. Mariana Pinteala* **Membru proiect**
5.7	UEFISCDI: " Mimicking living matter mechanisms by five-dimensional chemistry", Cod: PN-III-P4-ID-PCCF-2016-0050/ Contract nr. 4/2018. Durata: 01.07.2018 - 30.06.2022. Valoare: 6.999.150 RON Director proiect: *Prof. Aatto LAAKSONEN* **Membru proiect**
5.8	Programul operational competitivitate 2014-2020: "*Polimeri coordinativi porosi noi cu liganzi organici de dimensiuni variabile pentru stocarea gazelor*". Contract nr. P_37_707/31.08.2015 Durata: 31.08.2015 – 30.07.2019. Valoare: 8.952.377,99 RON Director proiect: *Dr. Vasile Lozan* **Membru Proiect.**
5.9	PN-III-P3-3.6-H2020-2016-0011, Proiect nr. 5/2016 Premierea participarii la Orizont 2020 Valoare: 1.668.000 RON Director proiect: Dr. Narcisa Marangoci **Membru Proiect.**
5.10	PN-IV-P8-8.1-PRE-HE-ORG-2023-0048 Contract no. 15PHE/2023 BioMat4CAST Suport Valoare: 2.500.000 RON Director proiect: Dr. Adina COROABA **Membru Proiect.**
5.11	UEFISCDI: PLATFORME TERANOSTICE ANTITUMORALE PE BAZA DE CARBON DOTS SI MATRICE POLIMERICE. PN-III-P1-1.2-PCCDI-2017-0083, contract nr. 37PCCDI din 01/03/2018 Valoare: 5.287.500 RON Director proiect: Dr. Bogdan C. Simionescu **Membru Proiect.**
6	**Stagii în străinătate**
6.1	2004 - 2005: Bursa DAAD (Guvernul RFG) la Institutul de Chimie Organica, Universitatea "Ruprecht-Karls", Heidelberg, Germania.
6.2	2006 - 2007: Postdoc la Institutul de Chimie Anorganica, Universitatea "Ruprecht-Karls", Heidelberg, Germania.
6.3	2008 - 2011: Postdoc la Centrul de Nanotehnologii pe baza de ADN, Universitatea din Aarhus, Danemarca.

04.03.2025