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Scientific papers:

1. Mayra S Coutinho, Thomaz de A Costa, Alan Imperatori, Andrei A Patrascu, Isabela Man, Maria GF Vaz, **Simona Nica**, Marius Andruh, Pedro N Batalha, *Engineering supramolecular systems with a bis(pyridyl)azine derivative and different hydrogen and halogen donors*, *Cryst. Growth Des.*, **2026**, 26(1), 198–209, <https://doi.org/10.1021/acs.cgd.5c01135>.
2. Adrian E Ion, Andreea Dogaru, Catalin Maxim, Anamaria Hanganu, Cristian Enache, Marius Andruh, **Simona Nica**, *Azulene-based organic cages formed with 1, 3, 5-tris(aminomethyl)-2, 4, 6-triethylbenzene: synthesis and physicochemical properties*, *Synthesis*, **2025**, 57(14), 2189-2196, DOI: 10.1055/a-2593-4590 (invited paper in Romanian Chemists in Synthesis).
3. Adrian E Ion, Catalin Maxim, Anamaria Hanganu, Andreea Dogaru, Augustin M Madalan, Alexander S Novikov, Sergiu Shova, Marius Andruh, **Simona Nica**, *Self-assembly of azulene-Based imine cages: synthesis and supramolecular organization*, *Cryst. Growth Des.*, **2025**, 25(6), 1743–1756, <https://doi.org/10.1021/acs.cgd.4c01186> (cover picture)
4. Elena Gorincioi, Crina Vicol, Natalia Bolocan, Claudia Cimpoi, Alic Barba, **Simona Nica**, Gheorghe Duca, *Harnessing synergy: investigation of the antioxidant interactions between trans-resveratrol and L-ascorbic acid by spectroscopic and DFT methods*, *Acta Chim. Slov.*, **2025**, 72, 654–665, DOI: 10.17344/acsi.2025.9292.
5. Andreea Dogaru, Adrian E Ion, Andrei A Patrascu, Mihai Răducă, Gheorghe Duca, Marius Andruh, **Simona Nica**, *Halogen-bonded co-crystals of azulene-1-carboxaldehyde with perfluorinated diiodobenzenes*, *Rev. Roum. Chim.*, **2025**, 70(5–6), 279–286, DOI: 10.33224/rrch.2025.70.5-6.04.
6. Anamaria Hanganu, Catalin Maxim, Andreea Dogaru, Adrian E Ion, Coralia Bleotu, Augustin M Madalan, Daniela Bala, **Simona Nica**, *Synthesis, physicochemical properties, and ion*

recognition ability of azulene-based bis-(thio) semicarbazone, *Molecules*, **2025**, 30(1), 83; <https://doi.org/10.3390/molecules30010083>.

7. Ana-Maria Manea-Saghin, Adrian E Ion, Francois Kajzar, **Simona Nica**, *Second order nonlinear optical properties of poled films containing azobenzenes tailored with azulene-1-yl-pyridine*, *Heliyon*, **2023**, 9(6), e17360, <https://doi.org/10.1016/j.heliyon.2023.e17360>.

8. Andreea Dogaru, Adrian A Apostol, Catalin Maxim, Mihai Raduca, Alexander S Novikov, Alina Nicolescu, Calin Deleanu, **Simona Nica**, Marius Andruh, *Halogen bonded supramolecular assemblies constructed from azulene derivatives and perfluorinated di-/triiodobenzenes*, *CrystEngComm*, **2023**, 25(37), 5243-5261, <https://doi.org/10.1039/D3CE00752A> (cover picture)

9. Daniela Bala, Luiza-Izabela Jinga, Marcela Popa, Anamaria Hanganu, Mariana Voicescu, Coralia Bleotu, Laszlo Tarko, **Simona Nica**, *Design, synthesis, and biological evaluation of new azulene-containing chalcones*, *Materials*, **2022**, 15(5), 1629; <https://doi.org/10.3390/ma15051629>.

10. **Simona Nica**, Axel Buchholz, Helmar Görls, Winfried Plass, *Hydrazone-based ligand with pyrrolidine donor and its molybdenum (VI) complex: synthesis, structure, and reactivity*, *Z. Anorg. Allg. Chem.* **2021**, 647(8), 937-942, <https://doi.org/10.1002/zaac.202000440>.

11. Alina S Dinca, Andreea Dogaru, Adrian E Ion, **Simona Nica**, Dan Dumitrescu, Sergiu Shova, Francesc Lloret, Miguel Julve, Marius Andruh, *An original 3D coordination polymer constructed from trinuclear nodes and tetracarboxylato spacers*, *CrystEngComm*, **2021**, 23(6), 1332-1335, <https://doi.org/10.1039/D0CE01667E> (cover picture)

12. Adriana Marinoiu, Mircea Raceanu, Mindaugas Andrulevicius, Asta Tamuleviciene, Tomas Tamulevicius, **Simona Nica**, Daniela Bala, Mihai Varlam, *Low-cost preparation method of well dispersed gold nanoparticles on reduced graphene oxide and electrocatalytic stability in PEM fuel cell*, *Arab. J. Chem.*, **2020**, 13(1), 3585-3600, doi: 10.1016/j.arabjc.2018.12.009.

13. **Simona Nica**, Monica Duldner, Anamaria Hanganu, Stela Iancu, Bogdan Cursaru, Andrei Sarbu, Petru Filip, Emeric Bartha, *Functionalized 1, 5, 7-triazabicyclo [4.4. 0] dec-5-ene (TBD) as novel organocatalyst for efficient depolymerization of polyethylene terephthalate (PET) wastes*, *Rev. Chim.*, **2018**, 69(10), 2613-2616.

14. Adrian E Ion, Andreea Dogaru, Sergiu Shova, Augustin M Madalan, Oluseun Akintola, Sorana Ionescu, Mariana Voicescu, **Simona Nica**, Axel Buchholz, Winfried Plass, Marius Andruh,

Organic co-crystals of 1, 3-bis (4-pyridyl) azulene with a series of hydrogen-bond donors, *CrystEngComm*, **2018**, 20(31), 4463-4484, <https://doi.org/10.1039/C8CE00945G>.

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16. Monica Duldner, Emeric Bartha, Stela Iancu, Stanca Capitanu, **Simona Nica**, Sorina Garea, *Polyester-ether polyols for rigid polyurethane foams, prepared from PET wastes by a clean method*, *Mater. Plast.*, **2016**, 53(3), 347-353.

17. Adrian E. Ion Liliana Cristian, Mariana Voicescu, Masroor Bangesh, Augustin M. Madalan, Daniela Bala, Constantin Mihailciuc, **Simona Nica**, *Synthesis and properties of fluorescent 4'-azulenyl-functionalized 2,2':6',2''-terpyridines*, *Beilstein J. Org. Chem.*, **2016**, 12, 1812-1825, <https://doi.org/10.3762/bjoc.12.171>.

18. Eugenia Andreea Dragu, Jean-Valere Naubron, Anamaria Hanganu, Alexandru C. Razus, **Simona Nica**, *Absolute Configuration Determination of Azulenyl Diols Isolated From Asymmetric Pinacol Coupling*, *Chirality*, **2015**, 27(11), 826-834; <https://doi.org/10.1002/chir.22523>.

19. **Simona Nica**, Anamaria Hanganu, Anca Tanase, Monica Duldner, Stela Iancu, Constantin Draghici, Petru Ivan Filip, Emeric Bartha, *Glycolytic Depolymerization of Polyethylene Terephthalate (PET) Wastes Organic vs. metal-catalysis*, *Rev. Chim.*, **2015**, 66 (8), 1105-1111.

20. Adrian E. Ion, **Simona Nica**, Augustin M. Madalan, Sergiu Shova, Julia Vallejo, Miguel Julve, Francesc Lloret, Marius Andruh, *Two-Dimensional Coordination Polymers Constructed Using, Simultaneously, Linear and Angular Spacers and Cobalt(II) Nodes. New Examples of Networks of Single-Ion Magnets*, *Inorg. Chem.*, **2015**, 54(1), 16-18, <https://doi.org/10.1021/ic5025197>.

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22. Florina Teodorescu, **Simona Nica**, Cornelia Uncuta, Emeric Bartha, Petru I. Filip, Nicolas Vanthuyne, Christian Roussel, Attila Mándi, László Tóth, Tibor Kurtán, Jean-Valère Naubron, Isabela-Costinela Man, *Vibrational and electronic circular dichroism studies on the axially chiral*

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23. Eugenia A. Dragu, Adrian E. Ion, Sergiu Shova, Daniela Bala, Constantin Mihailciuc, Mariana Voicescu, Sorana Ionescu, **Simona Nica**, *Visible-light triggered photoswitching systems based on fluorescent azulenyl-substituted dithienylcyclopentenes*, *RSC Adv.*, **2015**, 5(78), 63282-63286, <https://doi.org/10.1039/C5RA11974J>.

24. **Simona Nica**, Liliana Cristian, Anamaria Hanganu, Adrian E. Ion, Eugenia Andreea Dragu, Calin Deleanu, Alexandru C. Razus, *4-Guaiazulenyl Pyrylium Salts 2-and/or 6-substituted with Guaiazulenyl Pendant Arms*, *Rev. Chim.*, **2014**, 65(2), 164-167.

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26. Eugenia A. Dragu, Anamaria Hanganu, Ileana Rau, Francois Kajzar, Alexandrina Tane, Alexandru C. Razus, **Simona Nica**, *Photochemistry of Fluorescent Azobenzenes Substituted with Azulenylpyridine Moiety*, *Mol. Cryst. Liq. Cryst.*, **2014**, 604(1), 41-51, <https://doi.org/10.1080/15421406.2014.967653>.

27. Axel Buchholz, **Simona Nica**, Robert Debel, Annika Fenn, Hergen Breitzke, Gerd Buntkowsky, Winfried Plass, *Vanadium complexes with side chain functionalized *N*-salicylidene hydrazides: Hydrogen-bonding relays as structural directive for supramolecular interactions*, *Inorg. Chim. Acta*, **2014**, 420, 166-176, <https://doi.org/10.1016/j.ica.2014.03.037>.

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33. Eugenia Andreea Dragu, **Simona Nica**, Matei Raicopol, Adriana Baran, Dan-Florin Anghel, Bogdan Cojocar, Laszlo Tarko, Alexandru C. Razus, *Synthesis, solid-state photophysical properties and electropolymerization of novel diazulenyl ethenes*, *Tetrahedron Lett.*, **2012**, *53*(21), 2611-2614; <https://doi.org/10.1016/j.tetlet.2012.03.044>.
34. Alexandru C. Razus, Liliana Cristian, **Simona Nica**, Oana Zaharia, Anamaria Hanganu, *Pyrylium salts with 2-(azulen-1-yl) vinyl substituents in 2-, 4-and/or 6-positions*, *Arkivoc*, **2011**, 38-50.
35. Alexandru C. Razus, Eugenia Andreea Dragu, **Simona Nica**, Alina Nicolescu, *Reductive coupling of (azulen-1-yl)carbonyl compounds by low-valent titanium; pinacol/pinacolone rearrangement versus pinacol and alkene generation*, *Tetrahedron Lett.*, **2011**, *52*(16), 1858-1862; <https://doi.org/10.1016/j.tetlet.2011.02.022>.
36. Alexandru C. Razus, **Simona Nica**, Liliana Cristian, Matei Raicopol, Liviu Birzan, Andreea E. Dragu, *Synthesis and physico-chemical properties of highly conjugated azo-aromatic systems. 4-(azulen-1-yl)-pyridines with mono- and bis azo-aromatic moieties at C3-position of azulene*, *Dyes Pigment.*, **2011**, *91*(1), 55- 61, <https://doi.org/10.1016/j.dyepig.2011.02.008>.
37. Alexandru C. Razus, Liviu Birzan, Victorita Tecuceanu, **Simona Nica**, Cristian Enache, *Fragmentation of Azulen-1-yl Diazenes and bis-diazenes in Mass Spectrometer*, *Rev. Chim.*, **2010**, *61*(1), 55-57.
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39. Cornelia Uncuta, **Simona Ion**, Dragos Gherase, Emeric Bartha, Florina Teodorescu, Petru Filip, *Absolute Configurational Assignment in Chiral Compounds through Vibrational Circular Dichroism (VCD) Spectroscopy*, *Rev. Chim.*, **2009**, *60*(1), 86-98.
40. Alexandru C. Razus, **Simona Nica**, Eugenia Andreea Dragu, *Pyranylum Salts as Synthones in the Synthesis of Substituted Benzenes*, *Synth. Commun.*, **2009**, *39*(17), 3166-3183, <https://doi.org/10.1080/00397910902737130>.
41. **Simona Nica**, Axel Buchholz, Manfred Rudolph, Annika Schweitzer, Maria Wächtler, Hergen Breitzke, Gerd Buntkowsky, Winfried Plass, *Mixed-ligand oxidovanadium(V) complexes with N'-salicylidenehydrazides: Synthesis, structure, and (51)V solid-state MAS NMR investigation*, *Eur. J. Inorg. Chem.*, **2008**, (14), 2350–2359, <https://doi.org/10.1002/ejic.200800063>.
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43. **Simona Nica**, Axel Buchholz, Helmar Görls, Winfried Plass, *Methoxyoxobis(quinolin-8-olato-kappa N-2,O)vanadium(V)*, *Acta Crystallogr. E*, **2007**, *63*, M1450-M1452, <https://doi.org/10.1107/S1600536807016339>.
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45. Axel Pohlmann, **Simona Nica**, T. Kim K. Luong, Winfried Plass, *Dioxovanadium(v) complexes with side chain substituted N-salicylidenehydrazides modelling supramolecular interactions in vanadium haloperoxidases*, *Inorg. Chem. Commun.*, **2005**, *8*(3), 289-292, <https://doi.org/10.1016/j.inoche.2004.12.028>.
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Book chapters :

1. *Electrocatalysts for Fuel Cells and Hydrogen Evolution: Theory to Design*, Eds. Abhijit Ray, Indrajit Mukhopadhyay, Ranjan Kumar Pati, **Chapter 4: Noble metal dispersed on reduced graphene oxide and its application in PEM fuel cells**, pages , Adriana Marinoiu, Mircea Raceanu, Elena Carcadea, Aida Pantazi, Raluca Mesterca, Oana Tutunaru, **Simona Nica**, Daniela Bala, Mihai Varlam, Marius Enachescu, <https://doi.org/10.5772/intechopen.80941>.
2. *Vanadium: the Verastile Metal*, 2007, ACS Symposium Series, 2007, Eds: Kenneth Kustin, Joao Costa-Pessoa, and Debbie C. Crans, Volume: 974, ISBN-13: 978-0841274464; ISBN-10: 0841274460; HALOPEROXIDASES: MECHANISM AND MODEL STUDIES, **Chapter 13: Model Studies of Vanadium-Dependent Haloperoxidation: Structural and Functional Lessons** Pages: 163-177, Winfried Plass, Masroor Bangesh, **Simona Nica**, Axel Buchholz, doi: 10.1021/bk-2007-0974.ch013.

Proceeding ISI Web of Science:

1. Lippold, S. Nica, M. Mancka, W. Plass, *INOR 829-New aspects of vanadium containing oxidation catalysts*, *Abstracts of Papers of the American Chemical Society*, 2006.

Patents:

1. Adriana Marinoiu, **Simona Nica (Ion)**, Elena Carcadea, Mihai Varlam “*Procedeu de obținere a unor materiale grafenice funcționalizate cu azulene, obținute în câmp de microunde*”, brevet nr. RO135585B1/2024.
2. Adriana Teodora Marinoiu, **Simona Nica (Ion)**, Elena Carcadea, Catalin Capris, Mihai Varlam, “*Procedeu de obținere a unui material nanohibrid pe bază de grafene funcționalizate covalent cu azulene*”, brevet invenție RO 135059 B1/2024.
3. Adriana Marinoiu, Mircea Raceanu, Catalin Capris, Elena Carcadea, **Simona Filofteia Ion**, Mihai Varlam, “*Procedeu de obținere a unui nanocompozit pe baza de grafene dopate cu aur*”, brevet de inventie RO 133529/2022.
4. Monica Mirela Duldner, Stela Iancu, Stanca Căpitanu, Emeric Bartha, **Simona Nica**, Andrei Sârbu, Marcel Ionescu, Sorina Alexandra Gârea, “*Oligoester-polioli aromatic-aromatic alifatici din deșeuri de polietilentereftalat și monomeri provenind din resurse regenerabile, și procedeu de obținere a acestora*”, brevet invenție RO 131976 B1/2021.

5. Monica Mirela Duldner, Stanca Căpitanu, Bogdan Cursaru, Andrei Sârbu, Steluta Apostol, Emeric Bartha, **Simona Filofteia Ion**, Sorina Alexandra Gârea, Marcel Ionescu “*Oligoester-polioli din deșeuri de polietilenterestalat și materiale regenerabile, procedeu de obținere a acestora, și compoziție pentru spume poliuretanică stropite, încorporând respectivii oligoesteri-polioli*”, brevet invenție RO 133049 B1/2021.

Signature

A handwritten signature in blue ink, appearing to be 'Simona', written in a cursive style.