

LISTA LUCRĂRILOR ȘTIINȚIFICE / ACTIVITATE ȘTIINȚIFICĂ

Candidat: Dr. Andrei Honciuc (CSI)

1. Teza de doctorat

Andrei Honciuc, „New Unimolecular Rectifiers and Through-Bond Electron Tunneling Probed by IETS”, The University of Alabama, 2006, Publisher: ProQuest Dissertations & Theses, Publication Number: AAI3236781, ISBN: 9780542911286.

2. Articole publicate în reviste indexate ISI Web of Science Core Collection

- 2.1. A. Honciuc*, M. Honciuc, A. M. Solonaru "Piezoelectric Response and Energy Harvesting Capability in a Moldable PVA/PANi Composite Prepared via Frozen-Gel Polymerization" ACS Applied Electronic Materials 2025, 7, 7776-7790
- 2.2. M. Honciuc*, A. Honciuc, A. M. Solonaru "Pickering emulsion-derived polymer microspheres: Protective carriers for anthocyanins with tunable release and colorimetric sensing" Colloids and Surfaces B: Biointerfaces 2025, 255, 114905
- 2.3. A. M. Solonaru, M. Honciuc, A. Honciuc* "Adsorption performance of water-floating composites for heavy metal removal in marine and freshwater systems" Journal of Environmental Chemical Engineering 2025, 13, 119312
- 2.4. M. Honciuc, A. Honciuc* "Scaling Amphiphilicity with Janus Nanoparticles: A New Frontier in Nanomaterials and Interface Science" Nanomaterials 2025, 15, 1079
- 2.5. A. Honciuc*, O.I. Negru, M. Honciuc "Optimizing surface properties and particle morphology for metal ion adsorption: precise tuning via Pickering emulsion polymerization" Nanoscale Advances 2025, 7, 4947-4961
- 2.6. M. Asandulesa, A.M. Solonaru, M. Honciuc, F. Tudorache, A. Honciuc* "Flexible Composites from Water-Dispersible Components: Poly(vinyl alcohol), Janus Nanoparticles, and Polyaniline-Toward Mixed Ionic-Electronic Conductors" ACS Applied Polymer Materials 2024, 6, 9559-9569
- 2.7. A. Honciuc*, O.I. Negru, M. Honciuc, A. M. Solonaru "Polymer Microspheres Carrying Schiff-Base Ligands for Metal Ion Adsorption Obtained via Pickering Emulsion Polymerization" Journal of Composites Science 2024, 8, 271
- 2.8. A. Honciuc*, O.I. Negru, M. Honciuc "Interfacing Langmuir-Blodgett and Pickering Emulsions for the Synthesis of 2D Nanostructured Films: Applications in Copper Ion Adsorption" Nanomaterials 2024, 14 (9), 809
- 2.9. A. Honciuc*, M. Honciuc, A.M. Solonaru "Reversible Cu-Nanoparticle formation in soft hydrogel Composites: Towards Write-Erase displays and fluorescence detection" Journal of Colloid and Interface Science, 2024, 668, 37-49
- 2.10. M. Honciuc*, A. Honciuc* "Morphological Design and Synthesis of Nanoparticles" Nanomaterials 2024, 14(4), 360
- 2.11. M. Asandulesa, A.M. Solonaru, A. Honciuc* "Effect of Asymmetric Lobe Size on the Molecular Dynamics, Glass Transition, and Dielectric Behavior in Janus Nanoparticles" ACS Applied Nano Materials 2024, 7(3), 3352-3360
- 2.12. A. Honciuc*, A.M. Solonaru, M. Honciuc "Water-Floating Hydrogel Polymer Microsphere Composites for Application in Hydrological Mining of Cu (II) Ions" Nanomaterials 2023, 13 (19), 2619
- 2.13. A. Honciuc*, A.M. Solonaru, M. Honciuc "Pickering Emulsion Polymerization Technology— Toward Nanostructured Materials for Applications in Metal Ion Extractions from Wastewaters" ACS Applied Polymer Materials 2023, 5 (10), 8012-8022
- 2.14. A. Honciuc*, O.I. Negru "Asymmetrically Nanostructured 2D Janus Films Obtained from Pickering Emulsions Polymerized in a Langmuir-Blodgett Trough" Micromachines 2023, 14 (7), 1459

- 2.15. M. Asandulesa, A.M. Solonaru, A.M. Resmerita, A. Honciuc* "Thermal and Dielectric Investigations of Polystyrene Nanoparticles as a Viable Platform—Toward the Next Generation of Fillers for Nanocomposites" *Polymers* 2023, 15 (13), 2899
- 2.16. A. Honciuc*, O.I. Negru "Monitoring the Surface Energy Change of Nanoparticles in Functionalization Reactions with the NanoTraPPED Method" *Nanomaterials* 2023, 13 (7), 1246
- 2.17. A. Honciuc*, A.M. Solonaru, M. Teodorescu "Flexible Composites with Variable Conductivity and Memory of Deformation Obtained by Polymerization of Polyaniline in PVA Hydrogel" *Polymers* 2022, 14 (21), 4638
- 2.18. O. Pauli, A. Honciuc* "Extraction of Metal Ions by Interfacially Active Janus Nanoparticles Supported by Wax Colloidosomes Obtained from Pickering Emulsions" *Nanomaterials* 2022, 12 (21), 3738
- 2.19. A.M. Solonaru, M. Asandulesa, A. Honciuc* "Homologous Series of Polyaniline Derivatives Block Copolymers with Amphiphilic and Semiconducting Properties" *Polymers* 2022, 14 (11), 2149
- 2.20. A. Honciuc*, O.I. Negru "Role of Surface Energy of Nanoparticle Stabilizers in the Synthesis of Microspheres via Pickering Emulsion Polymerization" *Nanomaterials* 2022, 12 (6), 995
- 2.21. V. Mihali, A. Honciuc* "Self-Assembly of Strongly Amphiphilic Janus Nanoparticles into Freestanding Membranes" *Advanced Materials Interfaces* 2021, 9 (4), 2101713
- 2.22. A. Honciuc*, O.I. Negru "NanoTraPPED—A New Method for Determining the Surface Energy of Nanoparticles via Pickering Emulsion Polymerization" *Nanomaterials* 2021, 11 (12), 3200
- 2.23. V. Mihali, A. Honciuc* "Semiconductor–Insulator (Nano-) Couples with Tunable Properties Obtained from Asymmetric Modification of Janus Nanoparticles" *ACS Applied Materials & Interfaces* 2021, 13 (41), 49206–49214
- 2.24. C. Kang, A. Honciuc* "A Diversity of Asymmetric Nano-/Microcolloidal Architectures Grown by ATRP from Janus Seeds" *Chimia* 2019, 73 (4), 324–328
- 2.25. V. Mihali, A. Honciuc* "Evolution of Self-Organized Microcapsules with Variable Conductivities from Self-Assembled Nanoparticles at Interfaces" *ACS Nano* 2019, 13 (3), 3483–3491
- 2.26. C. Kang, A. Honciuc* "Versatile triblock Janus nanoparticles: synthesis and self-assembly" *Chemistry of Materials* 2019, 31 (5), 1688–1695
- 2.27. D. Wu, V. Mihali, A. Honciuc* "pH-responsive Pickering foams generated by surfactant-free soft hydrogel particles" *Langmuir* 2019, 35 (1), 212–221
- 2.28. C. Kang, A. Honciuc* "Growth of nano-/microcolloidal architectures from Janus seeds by ATRP" *Chemistry of Materials* 2018, 30 (21), 7664–7671
- 2.29. C. Kang, A. Honciuc* "Self-Assembly of Janus Nanoparticles into Transformable Suprastructures" *Journal of Physical Chemistry Letters* 2018, 9 (6), 1415–1421
- 2.30. C. Kang, A. Honciuc* "Influence of Geometries on the Assembly of Snowman-Shaped Janus Nanoparticles" *ACS Nano* 2018, 12(4), 3741–3750
- 2.31. D. Wu, B. P. Binks, A. Honciuc* "Modelling the interfacial energy of surfactant-free amphiphilic Janus nanoparticles from phase inversion in Pickering emulsions" *Langmuir* 2018, 34(3), 1225–1233
- 2.32. D. Wu, A. Honciuc* "Design of Janus nanoparticles with pH-triggered switchable amphiphilicity for interfacial applications" *ACS Applied Nano Materials* 2018, 1 (1), 471–482
- 2.33. D. Wu, A. Honciuc* "Contrasting mechanisms of spontaneous adsorption at liquid-liquid interfaces of nanoparticles Constituted of and Grafted with pH-responsive polymers" *Langmuir* 2018, 1(1), 471–482
- 2.34. V. Mihali, A. Honciuc* "Semiconductive materials with tunable electrical resistance and surface polarity obtained by asymmetric functionalization of Janus nanoparticles" *Advanced Materials Interfaces* 2017, 1700914–1700925

- 2.35. Y. Z. Tan, D. Wu, H. T. Lee, H. Wang, A. Honciuc, J. W. Chew* "Synthesis of ligand-carrying polymeric nanoparticles for use in extraction and recovery of metal ions" *Colloids and Surfaces A* 2017, 533, 179-186
- 2.36. F. Zamani, A. Ullah, E. Akhondi, H.J. Tanudjaja, E.R.Cornelissen, A. Honciuc, A.G. Fane, J.W. Chew* "Impact of the surface energy of particulate foulants on membrane fouling" *Journal of Membrane Science* 2016, 510, 101-111
- 2.37. D. Wu, J.W. Chew, A. Honciuc* "Polarity reversal in a homologous series of surfactant-free Janus nanoparticles: toward the next generation of amphiphiles" *Langmuir* 2016, 32, 6376-6386
- 2.38. A. Striolo, J. Kim, C. Murphy, L. Liz-Marzán, J. Lahann, J. Reguera, Y. Zhou, M. Brust, A. Thill, L. Scarabelli, T. A. F. König, M. Buzza, C. Kuttner, E. Gonzalez Solveyra, H. Wolf, J. Vermant, M. Pauly, A. Harvie, L. Pasquato, A. Stocco, H. Mattoussi, E. Kumacheva, K. Heatley, C. Hanske, R. Faller, D. French, A. Honciuc, B. Binks and F. Sicard, *Faraday Discuss.*, 2016, 191, 407-434
- 2.39. M. Tzirakis, R. Zambail; Y.Z. Tan; J.W. Chew; C. Adlhart, A. Honciuc* "Surfactant-Free Synthesis of Sub-100 nm Polymeric Nanoparticles by One-Step Ultrasonic Assisted Emulsification/Polymerization" *RSC Advances* 2015, 103218-103228
- 2.40. R. Walder, A. Honciuc, D.K. Schwartz*, "Directed nanoparticle motion on an interfacial free-energy gradient", *Langmuir* 2010, 26(3), 1501-1503
- 2.41. A. Honciuc*, M. Laurin, S. Albu, M. Sobota, P. Schmuki, J. Libuda, "Controlling the adsorption kinetics via nanostructuring: Pd nanoparticles on TiO₂ nanotube arrays", *Langmuir* 2010, 26(17), 14014-14023
- 2.42. R. Walder, A. Honciuc, D.K. Schwartz*, "Phospholipid Diffusion at the Oil-Water Interface", *Journal of Physical Chemistry B* 2010, 114(35), 11484-11488
- 2.43. A. Honciuc*, M. Laurin, S. Albu, M. Amende, M. Sobota, R. Lynch, P. Schmuki, J. Libuda, "Preparation and adsorption properties of Pd nanoparticles supported on TiO₂ nanotubes", *Journal of Physical Chemistry B* 2010, 114, 20146-20154
- 2.44. A. Honciuc, D.K. Schwartz*, "Probing hydrophobic interactions using trajectories of amphiphilic at hydrophobic/water interface", *Journal of the American Chemical Society* 2009, 131(16), 5973-5979
- 2.45. A. Honciuc, A.L. Howard, D.K. Schwartz*, "Single-molecule observations of fatty acid adsorption at fused silica/water interface: Activation energy of attachment", *Journal of Physical Chemistry C* 2009, 113(6), 2078-2081
- 2.46. A. Honciuc, D.Jn. Baptiste, I.P. Campbell, D.K. Schwartz*, "Solvent dependence of activation energy of attachment determined by single molecule observations of surfactant adsorption", *Langmuir* 2009, 25(13), 7389-7392
- 2.47. A. Honciuc, D.Jn. Baptiste, D.K. Schwartz*, "Hydrophobic interaction microscopy: Mapping the solid/liquid interface using amphiphilic probe molecules", *Langmuir* 2009, 25(8), 4339-4342
- 2.48. A. Honciuc, A. Harant, D.K. Schwartz*, "Single-molecule observations of surfactant diffusion at solid/solution interface", *Langmuir* 2008, 24(13), 6562-6566
- 2.49. A. Honciuc; R.M. Metzger*, A. Gong, C. Spangler "Elastic and inelastic electron tunneling spectra of a new rectifying monolayer" *Journal of the American Chemical Society* 2007, 129 8310-8319
- 2.50. W.J. Shumate, D.L. Mattern, A. Jaiswal, D.A. Dixon, T.R. White, J. Burgess, A. Honciuc, R.M. Metzger*, "Spectroscopy and rectification of three donor-sigma-acceptor compounds, consisting of a one-electron donor (pyrene or ferrocene), a one-electron acceptor (perylenebisimide), and a C19 swallowtail" *Journal of Physical Chemistry B* 2006, 110(23), 11146-11159
- 2.51. A. Honciuc, A. Otsuka, Y.-H. Wang, S.K. McElwee, S.A. Woski, G. Saito, R. M. Metzger*, "Polarization of charge-transfer bands and rectification in hexadecylquinolinium

- 7,7,8-tricyanoquinodimethanide and its tetrafluoro analog" *Journal of Physical Chemistry B* 2006, 110(31), 15085-15093
- 2.52. A. Honciuc, A. Jaiswal, A. Gong, K. Ashworth, C.W. Spangler, I.R. Peterson, L.R. Dalton, R.M. Metzger*, "Current rectification in a Langmuir-Schaefer monolayer of fullerene-bis-[4-diphenylamino-4''-(N-ethyl-N-2''-ethyl)amino-1,4-diphenyl-1,3-butadiene] malonate between Au electrodes" *Journal of Physical Chemistry B* 2005, 109, 857-871
- 2.53. A. Jaiswal, R.R. Amaresh, M.V. Lakshmikantham, A. Honciuc, M.P. Cava, R.M. Metzger*, "Electrical rectification in a monolayer of zwitterions assembled either by physisorption or chemisorption" *Langmuir* 2003, 19(21), 9043-9051

3. Capitole in cărți

- 3.1. A. Honciuc, *Amphiphilic Janus Particles at Interfaces*, in: F. Toschi, M. Sega (Eds.), *Flowing Matter*, Springer International Publishing, Cham, 2019: pp. 95-136.
https://doi.org/10.1007/978-3-030-23370-9_4

4. Cărți

- 4.1. A. Honciuc, "Chemistry of Functional Materials Surfaces and Interfaces" 2021, Elsevier, Amsterdam, Netherlands, pg. 271, ISBN 978-0-12-821059-8, <https://doi.org/10.1016/C2019-0-02998-6>
- 4.2. A. Honciuc, M. Honciuc, (Eds.) "Morphological Design and Synthesis of Nanoparticles" 2024, MDPI, Basel, Switzerland, pg. 328, ISBN 978-3-7258-0395-8

5. Brevete

- 5.1. E. Asirvatham; A. Honciuc; V. Mihali "Amino acid surfactants" USA patent US11731937 (B2) Publication Date 22 August 2023, see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20230822&DB=&locale=en_EP&CC=US&NR=11731937B2&KC=B2&ND=4#
- 5.2. E. Asirvatham; A. Honciuc; V. Mihali "Branched amino acid surfactants" USA patent US11897834 (B2) Publication Date 13 February 2024, see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20240213&DB=&locale=en_EP&CC=US&NR=11897834B2&KC=B2&ND=4#
- 5.3. E. Asirvatham; A. Honciuc; V. Mihali "Amino acid surfactants" USA patent US11795143 (B2) Publication Date 24 October 2023, see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20231024&DB=&locale=en_EP&CC=US&NR=11795143B2&KC=B2&ND=4#
- 5.4. E. Asirvatham; A. Honciuc; V. Mihali "Siloxane derivatives of amino acids having surface-active properties" USA patent US11952394 (B2), Publication Date 9 April 2024; see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20240409&DB=&locale=en_EP&CC=US&NR=11952394B2&KC=B2&ND=4#
- 5.5. A. Klipp, A. Honciuc, C.-Y. Yang "The use of surfactants having at least three short-chain perfluorinated groups in formulations for photo mask cleaning" USA Patent US9891520B2, Publication Date 13 February 2018; see <https://patentimages.storage.googleapis.com/00/86/9d/4aaead5733615a/US9891520.pdf>
- 5.6. A. Klipp, A. Honciuc, G. Oetter, C. Bittner "Use of compositions comprising a surfactant and a hydrophobizer for avoiding pattern collapse when treating patterned materials with line-space dimensions of 50 nm or below" USA patent US 9557652 B2, Publication Date 31 January 2017; see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20170131&DB=&locale=en_EP&CC=US&NR=9557652B2&KC=B2&ND=4#
- 5.7. A. Klipp, A. Honciuc, G. Oetter, C. Bittner "Compositions for anti-pattern collapse treatment comprising gemini additives" US Patent US10385295 (B2), Publication Date 20 August 2019, see

- https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20190820&DB=&locale=en_EP&CC=US&NR=10385295B2&KC=B2&ND=5#
- 5.8. B. Christian, O. Guenter, A. Honciuc, A. Klipp, S. Braun "Defect reduction rinse solution containing ammonium salts sulfoesters" US Patent US10538724 (B2), Publication Date 21 January 2020, see https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20200121&DB=&locale=en_EP&CC=US&NR=10538724B2&KC=B2&ND=4#
- 5.9. A. Klipp, G. Oetter, S. Montero-Pancera, A. Honciuc, C. Bittner "Method for manufacturing integrated circuit devices, optical devices, micromachines and mechanical precision devices having patterned material layers with line-space dimensions of 50 nm and less" USA patent US 9184057 B2, Publication Date 10 November 2015

6. Conferințe

- 6.1. A. Honciuc "Observation of single-molecules at interfaces: fundamentals and applications", given at the Swiss Chemical Society (SCS), Fall National Meeting, 11.09.2014 (invited lecture)
- 6.2. A. Honciuc "Nano-Emulsionen ohne Tenside", National Meeting SEPAWA Switzerland, 11.09.2015, Ittigen-Bern, University of Zurich, Irchel Campus, Switzerland (invited)
- 6.3. A. Honciuc "Nanoparticule Polimerice Semiconductoare de tip Janus Utilizate Pentru Obținerea de Materiale Multifunctionale" given at Zilele Academice Iesene, a XXVIth Session of Scientific Communications of the Institute of Macromolecular Chemistry "Petru Poni", Iasi, Romania (invited)
- 6.4. A. Honciuc, "Janus Nanoparticles – The Next Generation of Amphiphiles" given at SEPAWA Congress and European Detergents Conference, Estrel Congress Center, 18-20.10.2017, Berlin, Germany
- 6.5. A. Honciuc, C. Kang, 7th International Conference NANOSEA NANO-structures and nanomaterials SELF-Assembly, July 2-6th 2018, Carqueiranne, France

7. Comunicări orale

- 7.1. D.K. Schwartz, A. Honciuc, A. Harant, „Single-molecule studies of surfactant adsorption, desorption, and surface diffusion” 81st Meeting of the ACS Division of Surface & Colloid Chemistry, 24-27.06.2007, Newark, Delaware, USA
- 7.2. D.K. Schwartz, A. Honciuc „Single-molecule studies of diffusion at solid/liquid interfaces” 6.-10.04.2008, 235th American Chemical Society National Meeting, New Orleans, USA
- 7.3. A. Honciuc "Synthesis of Surfactant-Free Amphiphilic Janus Nanoparticles and their Application in Pickering Emulsion Polymerization" given at Danube Vltava Sava Polymer Meeting, Technical University of Vienna, 5-8.09.2017
- 7.4. O.-I. Negru, A. Honciuc, A.-M. Solonaru, D. N. Nguyen, K. Tristan, Determining the Surface Energy of Nanoparticles from their Interfacial Immersion Depth in Pickering Emulsions, Bucharest Polymer Conference 2nd Edition University Politehnica of Bucharest, Romania 10 - 11 June 2021
- 7.5. A.-M. Solonaru, A. Honciuc, O.-I. Negru, Core-Shell Polystyrene/Polyaniline Nanoparticles with Variable Conductivity and Surface Properties, Bucharest Polymer Conference 2nd Edition University Politehnica of Bucharest, Romania 10 - 11 June 2021
- 7.6. A.-M. Solonaru, A. Honciuc, O.-I. Negru, Polyaniline/ Poly(Styrene-co-tert-Butyl Acrylate) Composites: Preparation Morphology and Surface Properties, Polymer Processing in Engineering Conference Galati, 18-19 November 2021
- 7.7. O.-I. Negru, A. Honciuc, A.-M. Solonaru, Determining the Surface Energy of Nanoparticles by Pickering Emulsion Polymerization Technology, Polymer Processing in Engineering Conference Galati, 18-19 November 2021

- 7.8. A. Honciuc, O.-I. Negru, Determining surface energies of nanoparticles from the contact angles measured with the NanoTraPPED Method; 8th World Congress on New Technologies (NewTech'22), Praga, Cehia, 3- 5.08.2022
- 7.9. A. Honciuc, Utilization of Polymerized Pickering Emulsions in Extraction and Recovery of Metal Ions from Waters; 25th International Conference: Materials, Methods and Technologies, Burgas, Bulgaria, 17-20.08.2023
- 7.10. A. Honciuc, Wastewater Treatment with Innovative Material Produced by Pickering Emulsion Polymerization Technology (PEmPTech); 32nd International Conference: Ecology and Safety, Burgas, Bulgaria, 14-17.08.2023
- 7.11. A. Honciuc, A.-M. Solonaru, O. I. Negru, M. Honciuc, Fluid or Solid Ligand-Carrying Surface Nanostructured Microspheres Utilized in Extraction and Recognition of Metal Ions; 20th International Conference on Nanosciences and Nanotechnologies (NN23), Thessaloniki, Grecia, 04-07.07.2023

8. Număr citări /Impact al activității de cercetare

Număr Citări (fara autocitări) = 888 conform ISI Thomson (20.11.2025)

Citări medii pe lucrare = 19.25 conform ISI Thomson (20.11.2025)

Indice Hirsch = 20 conform ISI Thomson (20.11.2025)

9. Granturi cu finanțare din străinătate

- 9.1. 01.04.2021-31.03.2022 “NanoTraPPED” – Development of a Method for Measuring the Surface Energy of Nanoparticles, Rol A. Honciuc: director proiect, Project Nr. 200021_188465, financed by Swiss National Science Foundation, Budget total: 136'250 CHF (141.984 EURO), <https://data.snf.ch/grants/grant/188465> (Membri proiect: Dr. A. Honciuc, Dr. O.-I. Negru)
- 9.2. 01.02.2019-31.01.2020 “Development of high-performance surfactants”, Rol A. Honciuc: director proiect, financed de AdvanSix Inc., USA, Budget: 195000 CHF (203.208 EURO) (Membri proiect: Prof. A. Honciuc, Dr. V. Mihali)
- 9.3. 01.09.2015-31.08.2018 “Intensified by Design® for the intensification of processes involving solids handling” H2020 – SPIRE – 2015 - IbD Intensified by Design GA -680565, Rol A. Honciuc: membru participant proiect WP4, beneficiar Iris Technology Solutions, Sociedad Limidada, Buget total: 10986653 Euro, Buget ZHAW: 966563 EURO, <https://cordis.europa.eu/project/id/680565> (Membri Proiect: Prof. C. Adlhart, Prof. A. Honciuc & Dr. Riedlberg)
- 9.4. 01.05.2016 - 30.09.2016 “High-performance oxygen-sensing layers based on nanoparticles”, Rol A. Honciuc: director proiect, Project Nr. 19112.1 PFSATW-NM finantat de Commission for Technology and Innovation, Elvetia, Buget: 16000 CHF (16673 EURO), <https://www.aramis.admin.ch/Beteiligte/?ProjectID=39063>

10. Granturi cu finanțare națională

- 10.1. 2022-2024 “Employing “PEmPTech” in the Synthesis of Ion-Imprinted Polymer Architectures for Metal Ion Extraction from Wastewaters and Hydro Mining” (PEmPTech), Rol A. Honciuc: director proiect, finantat de Ministerul Cercetarii, Inovarii si Digitalizarii, Buget: 1200000 RON, <https://icmpp.ro/projects/17/about.php?id=55>
- 10.2. 30.06.2022-28.06.2024 “Tranzistor cu efect de câmp organic flexibil și nanostructurat pentru detecție UV-vis” (FLEXOFET), Beneficiar National Institute of Materials Physics (INCDFM), Partener ICMPP, Rol A. Honciuc: director proiect partner ICMPP, finantat de Ministerul Cercetarii, Inovarii si Digitalizarii, Buget ICMPP: 170000 RON, <https://infim.ro/en/project/tranzistor-cu-efect-de-camp-organic-flexibil-si-nanostructurat-pentru-detectie-uv-vis/>
- 10.3. 2022-2024 “Semiconducting Nanocomposites Based on Conjugated Polymers and Multifunctional Janus Nanoparticles as Novel Type of Filler” (PolySEM), Rol A. Honciuc:

membru cercetator senior, finantat de Ministerul Cercetarii, Inovarii si Digitalizarii, Buget: 450.000 RON, <https://icmpp.ro/projects/17/about.php?id=62>

11. Contracte extrabugetare

- 11.1. 01.03.2015 - 29.02.2016 "Water-Floating Membranes of Ligand Carrying Amphiphilic Wastewater Treatment, Soil Recovery and Hydrological Mining" Rol A. Honciuc: director proiect Buget 42000 CHF (217765 RON) finantat de ZHAW prin programul pan-universitar de sprijin al proiectelor de risc numit Anschubfinanzierung
- 11.2. 01.01.2017 - 01.10.2018 "Water-Floating Membranes of Ligand Carrying Amphiphilic Wastewater Treatment, Soil Recovery and Hydrological Mining (Part II)" Rol A. Honciuc: director proiect Buget 45000 CHF (233305 RON) finantat de ZHAW prin programul pan-universitar de sprijin al proiectelor de risc numit Anschubfinanzierung
- 11.3. 01.03.2014-31.10.2019 Finantare de la Fundatia Metrohm, 300.000 CHF/an, in total 1800000 CHF (9333737 RON), Rol A. Honciuc beneficiar al finantarii, director proiect

12. Stagii in strainatate

- 03.2014 – 10.2019 Profesor și lider de grup de cercetare „New Materials“, Institutul de Chimie si Biotehnologie, Zurich University of Applied Sciences (ZHAW), Elveția
- 05.2011– 03.2014 Chimist, Lider de echipa de laborator în cercetare și dezvoltare (R&D) BASF SE, Ludwigshafen, Germania
- 02.2009 – 04.2011 Alexander von Humboldt bursier postdoctorand Friedrich-Alexander University, Erlangen, Germania
- 10.2006 – 02.2009 Cercetator asociat (postdoctorand), Chemical Engineering Department, University of Colorado, Boulder, SUA
- 09.2001 – 08.2006 Doctorat în Chimie, The University of Alabama, SUA

13. Alte activități

13.1. Activități editoriale și de evaluare

- 2023-2024 Guest Editor Nanomaterials, pentru numarul "Morphological Design and Synthesis of Nanoparticles" editia a-2-a
- 2022-2023 Guest Editor Nanomaterials, pentru numarul "Morphological Design and Synthesis of Nanoparticles"
- Evaluator proiecte –National Science Center (Polonia), ACS Petroleum Research Fund (SUA), HORIZON ERC Grants (EU)
- Recenzor articole – ACS Nano, JACS, ACS Applied Materials and Interfaces, Materials Chemistry, ACS Omega, Langmuir, Nanomaterials, Macromolecules, Small, etc.
- Membru in comisia de concurs CSII al Institutului de Cercetari Disciplinare – RAMTECH, conf. deciziei Univ. Al. I Cuza, nr. 1708 din 16.12.2021
- Referent în comisia de doctorat a Dnei Dr. Adriana-Petronela Chiriac, teză susținută public pe 28.10.2021 în ICMPP

13.2. Formarea resursei umane – studenți și postdoctoranzi supervizați

- Maria Medrihan (Doctorand) – 2022 – 2024, membru în comisia de îndrumare doctorat
- Chengjun Kang (PhD, Postdoctorand) – 2016 - 2019
- Voichita Mihali (PhD, Postdoctorand) – 2016 - 2020
- Tristan Kipfer (BSc) - 2018
- Gioele Moll (BSc) - 2018
- Simon Burgener (BSc) - 2017
- Michel Gion Flurin (BSc) - 2016
- Anto Udovicic (BSc) - 2016
- Lorena Moll (BSc) - 2015
- Roman Zambail (BSc) - 2015

Yong Zen Tan (PhD, Doctorand) – 2015-2016, co-supervizat în program bilateral cu Prof. Jia-Wei Chew of Nanyang Technical University (NTU), Singapore
Thien Ahn Trinh (PhD Doctorand) - 2015 , co-supervizat în program bilateral cu Prof. Jia-Wei Chew of Nanyang Technical University (NTU), Singapore
Vanessa Rullaud (PhD, Postdoctorand), 2015-2016
Dalin Wu (PhD, Postdoctorand), 2015 – 2019
Manolis Tzirakis, (PhD, Postdoctorand), 2014- 2015

13.3. Premii, burse, finanțări diverse

2007 Outstanding Graduate Student Award, University of Alabama, SUA
2008 Outstanding Dissertation Award, University of Alabama, SUA
2008 Award of merit, University of Alabama, SUA
2009 Humboldt Fellowship, from Alexander von Humboldt Foundation, Germania
2022 BEST PAPER AWARD 8th World Congress on New Technologies (NewTech'22) oferit pentru "Determining Surface Energies of Nanoparticles from the ContactAngles Measured with the NanoTraPPED Method"
2014-2019 FINANȚARE PROFESORAT METROHM: Metrohm Foundation Endowment, Metrohm Foundation, Switzerland

13.4. Actual sau fost membru al societăților științifice

American Chemical Society
Swiss Chemical Society
Royal Society of Chemistry
Vereinigung der Seifen-, Parfüm- und Waschmittelfachleute (SEPAWA)

13.5. Articole publicate non-peer review

J. Passo*, M. Toivianen, T. Freeman, C. Adlhart, A. Honciuc, R. Arnberg, F. Brakstad, "Intensified by Design© for the intensification of processes involving solids handling - Review paper of State of the Art in analytical technologies and metering solutions suitable for PI control" 2016, Ref. Ares (2016)1510772
Elsbeth Heinzelmann, Andrei Honciuc, "Blazing New Trails in Surfactant-Free Nanoparticles", Life Sciences Plus, 2015 (1), 21-23 (in lb. germana)

13.6. Articole peer-review publicate în reviste neindexate ISI

G. Caruntu*, D. Ganju, A. Honciuc, D. Caruntu, I. Berdan, "Metastability of K₂NiF₄ type - structures in solid solutions" Revista de Chimie 2000, 51, 424-427

Data
26.11.2025

Semnatura

Andrei Honciuc