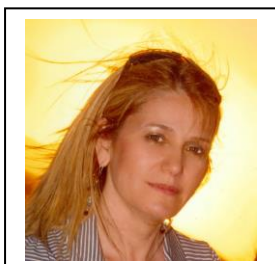


Evangelia A. Pavlatou



Professor

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Google scholar: <https://scholar.google.com/citations?user=bv1SvHwAAAAJ&hl=en&oi=ao>
(citations: 2126, h-index: 25)

SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=6602670462>

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EDUCATION

1984-1989: Diploma of Chemical Engineering, University of Patras

1989-1994: Ph.D. in Chemical Engineering of University of Patras / Doctoral Thesis: Light scattering from zinc halides in molten and amorphous states, Supervisor: Prof. G.N. Papatheodorou

RESEARCH FIELDS

Her research work is actually oriented through the following fields: (i) structural characterization of inorganic materials by application of various spectroscopic techniques, (ii) production and characterization (microstructure- properties- photocatalytic, mechanical, corrosion) of electrocoatings (iii) production of metallic and alloy nanostructures (nanowires, nanotubes and nanostructured templates) (iv) production and characterization of inorganic nanomaterials for self-cleaning and antibacterial applications (v) wastewater treatment by development of metal removal processes and (vi) educational research for science and technology education by implementation of digital/multimedia tools. Her research has been published in 75 articles in journals, 1 in book, 32 in proceedings of international proceedings, 74 abstracts at international conferences and 64 articles at Greek conferences.

EDUCATIONAL EXPERIENCE

UNDERGRADUATE COURSES (present)

- Nanomaterials and Nanotechnology / Direction subject /School of Chemical Engineering NTUA / 2019-present
- Introduction in Chemical Engineering / Core subject / School of Chemical Engineering NTUA / 2016-present
- Applied Didactics of Natural Sciences and Technology / Selective subject / School of Chemical Engineering NTUA / 2004-present
- General Chemistry / Core subject / School of Applied Mathematics and Physical Science NTUA / 2001-present
- Science and Technology of Metallic Materials / Selective subject /School of Chemical Engineering NTUA / 2019-present
- Water Management / Selective subject / School of Chemical Engineering NTUA / 2020-present
- Environmental Science and Technology / Core subject / School of Chemical Engineering NTUA / 2021-present

GRADUATE COURSES (present)

- Chemical Technologies-Special Cases / Department of Chemistry / Didactics in Chemistry and new educational technologies / 2001-2008
- Chemistry, Technology and every day applications / Department of Chemistry / Didactics in Chemistry and new educational technologies / 2008-present.
- Application of New Technologies in Education I / Department of Chemistry / Didactics in Chemistry and new educational technologies / 2018-present
- Application of New Technologies in Education II / Department of Chemistry / Didactics in Chemistry and new educational technologies / 2018-present
- Tools for the Development of Educational Digital Material / Department of Chemistry / Didactics in

- Chemistry and new educational technologies / 2018-present
- Laboratory course I / Material science and technology NTUA / 2000-present.
- Laboratory course II / Material science and technology NTUA / 2017-present.
- Science and technology of building materials and architectural surfaces / Monument Protection NTUA / 2009-present.
- Special subjects in Water Chemistry / Water Resources Science and Technology NTUA / 2022-present.

DISCRIMINATIONS / SCHOLARSHIPS

- 1995-1996: Postdoctoral Fellowship in the framework of "Human Capital and Mobility Program"- Post-doctoral researcher at the Chemistry Physical Chemistry of Oxford University.
- 1989-1993: Fellowship for doctoral studies from the Institute of Chemical Engineering & High Temperature Chemical Processes (ICE/HT, FORTH, Hellas).
- 1986, 1988: Reward Fellowships for distinct progress in undergraduate studies from the National Institute of Fellowships.
- 1977-1983: Distinction Rewards of National Ministry in Education.

RESEARCH GRANTS (selected)

- High-performance carbon-based composites with smart properties for advanced sensing applications (EsSENce) / Prof. E.A. Pavlatou / Budget: 681.688,40 € / 2020-2024
- HyMat: Hybrid materials for biological use / Prof. E.A. Pavlatou / Budget: 15.000 € / 2020-2022
- Development of smart nano-TiO₂ with photo-induced anticancer activity / Prof. E.A. Pavlatou / Budget: 72.100€ / 2018-2019
- Electrochemical processing methodologies and corrosion protection for device and systems miniaturization (e-MINDS) / Prof. E.A. Pavlatou - Representative of Greece and Group co-leader of WP1 / 2015-2019
- Low-cost, green, large-scale manufacturing of new age conducting nanowires displays / Prof. E.A. Pavlatou / Budget: 1.067.000 € / 2013-2015
- SelfClean-novel self-cleaning, anti-bacterial coatings, preventing disease transmission on everyday touched surfaces / Prof. E.A. Pavlatou / Budget: 1.139.000€ / 2013-2015
- Oil & Sugar-Training and collaboration on material developments and process improvements in oil and sugar production / Prof. E.A. Pavlatou / Budget: 55.100€ / 2012-2015
- Study of the mechanism of Ni nanowires electrodeposition and the effect of the electrolytic parameters on the structure / Prof. E.A. Pavlatou / Budget: 15.000€ / 2008-2010

REVIEWER OF SCIENTIFIC JOURNALS

Applied Surface Science, Chemical Engineering Communications, Chemical Education, Computers & Education, Electrochimica Acta, Industrial & Engineering Chemical Research, Journal of Alloys & Compounds, Journal of Applied Electrochemistry, Journal of Electrochemical Society Journal of Materials Science, Journal of Hazardous Materials, Journal of Materials Engineering and Performance, Material Science and Engineering A, Materials Chemistry and Physics, Nanoscale Research Letters, Surface and Coatings Technology, Thin Solid Films, Tribology Letters, Zeitschrift für Physikalische Chemie, Nanomaterials

ADDITIONAL INFORMATION

Supervision of undergraduate, graduate students and doctoral theses:

She has supervised forty five (45) diploma and thirty three (33) master studies realized at the General Chemistry Laboratory of Chemical Engineering School at NTUA and National and Kapodistrian University of Athens (NKUA), as well as twenty two (22) Ph.D studies realized at the General Chemistry Laboratory of Chemical Engineering School at NTUA.

Contributions in Proceedings of International Conferences (selected):

1. Raman Spectroscopic Study of BeCl₂ in the Crystalline, Glassy and Liquid State and of Molten BeCl₂-CsCl mixtures - E.A. Pavlatou * and G.N. Papatheodorou in «Proceedings of the International Symposium in Honour of Terje Ostvold Conference», Roros, Norway, November 1-3, 1998, p. 205-214 (Invited speaker).
2. Vibrational spectroscopic studies of BiCl₃-KCl glass forming mixtures. E.A. Pavlatou in «Proceedings of the

- International George Papatheodorou Symposium», Patras, Greece, September 17-18, 1999, p.151-156.
3. Phase-equilibria and structure in the $\text{Na}_3\text{AlF}_6\text{-Na}_2\text{B}_4\text{O}_7\text{-TiO}_2$ system. E.M. Anghel, E. Pavlatou, M. Balasoïu and S. Zuca in «Advances in Molten Salts», Begel House Inc., NY-Wallingford, 1999, p. 23-31.
 4. Applications of Nickel Matrix Composite Coatings in Textile Industry Equipment. P. Gyftou, E. Pavlatou and N. Spyrellis, in «Proceedings of American Electroplaters and Surface Finishers Society, AESF SUR/FIN Technical Conference 2000 – EAST», Chicago, USA, June 26-29, 2000 (484-488).
 5. Spectroscopic investigation on the structure of the $\text{NaCl - Na}_2\text{B}_4\text{O}_7\text{-TiO}_2$ system. E.M. Anghel, C. Bessada, S. Zuca and E. Pavlatou in «Progress in Molten Salt Chemistry 1», Special Volume in honor of Prof. Niels J. Bjerrum, August 20-25, 2000, edited by Elsevier, ed. R.W. Berg, H.A. Hjuler, 2000, p.59-62.
 6. Nickel Matrix Composite Electrocoatings with SiC. S. Psarrou, P. Gyftou, E. Pavlatou, C. Kollia an N. Spyrellis in «Proceedings of the 15th World Congress on Surface Technology», Garmisch-Partenkirchen, Germany, September 13-15, 2000 (CD-rom).
 7. Ni/SiC Electrocoatings E.A. Pavlatou and N. Spyrellis in «5th International Conference THE Coatings in Manufacturing Engineering», October 5-7, 2005, Chalkidiki, ed. K.D. Bouzakis, B. Denkena, M. Geiger, H.K. Toenshoff, Ziti Editions, 2005, p. 425-433.
 8. Ni/TiO₂ nano-particles composite electrodeposits: Textural and structural modifications. S. Spanou, E.A. Pavlatou, N. Spyrellis in «Euro-Interfinish 2007 - Nanotechnology and Inovative Coatings», Athens, October 18-19, 2007 (CD-rom)
 9. The Effect of Heat Treatment on the Structure and Hardness of Pulse Electrodeposited NiP WC composite coatings A. Zoikis - Karathanasis, E.A. Pavlatou, N. Spyrellis in «Euro-Interfinish 2007 - Nanotechnology and Innovative Coatings», Athens, October 18-19, 2007 (CD-rom)
 10. Effect of WC particles embedding on the tribological behavior of Ni matrix composite electrocoatings E.A. Pavlatou, P. Assimidis, N. Spyrellis in «Euro-Interfinish 2007 - Nanotechnology and Inovative Coatings», Athens, October 18-19, 2007 (CD-rom)
 11. Structure and properties of electrodeposited NiP-WC composite coatings A. Zoikis - Karathanasis, E.A. Pavlatou, N. Spyrellis in «6th International conference “The Coatings” in Manufacturing Engineering», Hannover, Germany, October 25-27, 2007 p. 257-265
 12. Structural and Mechanical Properties of Nanostructured Metal/Alloy Matrix Composite Electrocoatings N. Spyrellis, E.A. Pavlatou, S. Spanou, A. Zoikis – Karathanasis in «NPS08 Nanoscale Phenomena and Structures in Bulk and Surface Phases», Sofia, Bulgaria, February 26 – March 02 2008, ed. by D. Kashchiev, Prof. Marin Drinov Academic Publishing Hoose, Sofia, 2008, p. 221-228 (Invited speaker)
 13. Printed circuit boards (PCB) treatment by electrodeposition process for the production of copper powder Masavetas, A. Moutsatsou, E. Nikolaou, S. Spanou, A. Zoikis-Karathanasis, E.A. Pavlatou, N. Spyrellis in «WasteEng08 2nd International Conference on Engineering for Waste Valorisation», Patras, Greece, June 3-5, 2008, (CD-rom)
 14. Mechanical properties of TiO₂ nickel matrix composite electrocoatings S. Spanou, E.A. Pavlatou, N. Spyrellis in «Proceedings of 7th International Conference “The Coatings” in Manufacturing», October 1-3 2008, Kallithea Chalkidiki, Greece, ed. K.D. Bouzakis, Fr.W. Bach, B. Denkena, M. Geiger, Ziti Editions, 2008, p. 399-408
 15. Effect of plating parameters in NiP-SiC Electrodeposition P. Papavasilopoulou, A. Zoikis – Karathanasis, E.A. Pavlatou, N. Spyrellis in «Proceedings of 7th International Conference “The Coatings” in Manufacturing», October 1-3 2008, Kallithea Chalkidiki, Greece ed. K.D. Bouzakis, Fr.W. Bach, B. Denkena, M. Geiger, Ziti Editions, 2008, p. 417-425
 16. The effect of three types of visualization on a chemistry multimedia application for 12th grade students G. Korakakis, E.A. Pavlatou, J. Palyvos, N.Spyrellis, in «International Conference of Education, Research and Innovation (ICERI 2008)», Madrid (Spain), November 17-19, 2008, (CD-rom)
 17. The contribution of animated cartoons in a multimedia application for teaching chemistry: A case study for 5th grade students in Greece K. Dalacosta, E. Pavlatou, M. Kamariotaki-Paparrigopoulou, J. Palyvos in «International Technology Education and Development Conference (INTED 2009)», Valencia (Spain), March 9 – 11, 2009, p. 3497-3504 (CD-rom)
 18. Development of a computer-based assessment tool for undergraduate programming courses N. Kalogeropoulos, E. Pavlatou, A. Boudouvis, I. Tzigounakis in «International Conference of Education, Research and Innovation (ICERI 2009)», Madrid (Spain), November 16-18, 2009, p. 6990-6997 (CD-rom)
 19. Combined effect of addition of 2-bouten-1,4-diole and pulse current imposition on the production of nanostructured Ni coatings P. Gyftou, S. Spanou, A. Gialamopoulou, E.A. Pavlatou * in “9th European Symposium on Electrochemical Engineering (9th ESEE)”, Chania-Greece, June 20-24, 2011, (CD-rom)
 20. Doped titania nanopowders with photocatalytic and antimicrobial properties under visible light irradiation D. S. Tsoukleris, C. Fratti, Claus Barholm-Hansen, Anette Alsted Rasmussen, E. A. Pavlatou in “SPEA8, 8th European Meeting on Solar Chemistry and Photocatalysis, Environmental Applications”, 25-28 June, 2014,

Thessaloniki, Greece

21. Novel Self-cleaning, anti-bacterial Sn-Ni electrocoatings of high aesthetics and durability, D. S. Tsoukleris, E. A. Pavlatou, S. Spanou, C. Zanella, P. Leisner in "65th Annual Meeting of the International Society of Electrochemistry", Lausanne Switzerland, 31 August-5 September, 2014
22. N-S Doped titania photocatalyst with self-cleaning and antimicrobial properties under visible light irradiation, D. S. Tsoukleris, G. Psarellis, M.E. Kassalia, N. Friliggou, E. A. Pavlatou in "Nano & Dispersion Coatings, European Interfinish 2015", Politecnico di Milano, Italy, 26-27 February 2015
23. Synthesis of copper and tin nanowires by applying template-assisted direct and pulse electrodeposition E. Rosolymou, M. E. Kassalia, E.A. Pavlatou in "EUROMAT 2017", 17-22 September 2017, Thessaloniki 2017
24. Influence of the electrodeposition parameters on the microstructure of composite Ni matrix electrodeposits - N. Chronopoulou, M. Lekka, E.A. Pavlatou in «3rd e-MINDS Workshop», 25-27 October 2017, Barcelona, Spain
25. Electrodeposited Ni alloy composite coatings reinforced by TiO₂ nanoparticles - E. Rosolymou, D.S. Tsoukleris, M.E. Kassalia, M. Pytharoulis, E.A. Pavlatou in «C-MAC Days 2017», Athens, Greece, 20-23 November 2017
26. Synthesis of copper, copper-nickel, tin/tin oxide nanowires by applying template-assisted electrodeposition - E. Rosolymou, I. Papadakos, E.A. Pavlatou in «C-MAC Days 2017», Athens, 20-23 November 2017
27. Electrodeposition of carbon-based nanocomposites - N. Chronopoulou, A. Karantonis, E.A. Pavlatou in «32nd International Conference on Surface Modification Technologies (SMT32)-EAST Forum», 27-29 June 2018, San Sebastian, Spain
28. Effect of silver doped nanostructured titanium dioxide (TiO₂) on breast cancer epithelial cells - N. Lagopati, E.A. Pavlatou, A. Kotsinas, V. Gorgoulis, in «International Conference on Nanomedicine and Nanotechnology», August 20-21, 2018, Rome, Italy
29. Synthesis of Tin/Tin oxide nanowires by applying template-assisted direct and pulse electrodeposition - E. Rosolymou, E.A. Pavlatou in «69th Annual Meeting of the International Electrochemical Society-ISE 2018», Bologna, Italy, 2-7 September 2018
30. Effect of nanostructured titanium dioxide on photoinduced cancer treatment - N. Lagopati, E.A. Pavlatou, A. Kotsinas, V. Gorgoulis in «International Conference Opentox 2018-Bridging the gap between experimental and computational work in safety and risk assessment», October 9-11, 2018 Athens, Greece
31. Morphological and structural characterization of tin/tin oxide nanowires - E. Rosolymou, E. Pellicer, J. Sort, E.A. Pavlatou in «COST WORKSHOP-Electrochemical processing and corrosion of miniaturized systems», 13-15 February 2019, Polytechnico di Milano, Milan, 2019
32. Nanomaterials and cellular senescence - E.A. Pavlatou, N. Lagopati in «Annual Meeting of the International Cell Senescence Association, Cellular Senescence: the bright & dark side», Athens, Greece, September 9-12, 2019
33. Photo-activated N-doped/TiO₂ nanoparticles with anticancer properties - N. Lagopati, A. Kotsinas, V.G. Gorgoulis, E.A. Pavlatou in «World Conference on Engineering and Technology», Frankfurt, Germany, October 24 – 26, 2019
34. Mercury removal from crude oil using natural minerals - M.-A. Gatou, D.S. Tsoukleris, E.A. Pavlatou in «35th International Conference on Environmental Geochemistry and Health (2019)», 1-5 July, Manchester, United Kingdom
35. Development of smart TiO₂ nanoparticles with photo-induced anticancer properties - E. Galata, E.A. Georgakopoulou, M.E. Kassalia, N. Papadopolou-Fermeli, E.A. Pavlatou «16th International Conference on Nanosciences & Nanotechnologies (NN19)», Thessaloniki, 2-5 July, 2019
36. Retention of Pb using thermally-treated palygorskite under dynamic sorption conditions - M.-A. Gatou, Z. Kyritidou, A. Argyraki, E.A. Pavlatou in «RawMat 2021 - International Conference on Raw Materials and Circular Economy», Athens, 5-9 September, 2021

SELECTED PUBLICATIONS (link OF PUBLICATIONS)

- <https://www.mdpi.com/2076-3417/13/16/9172>
- <https://www.mdpi.com/2073-4352/13/8/1236>
- <https://www.mdpi.com/2079-4991/13/15/2224>
- <https://www.mdpi.com/2073-4441/15/15/2773>

- <https://www.mdpi.com/2077-0375/13/7/627>
- <https://www.mdpi.com/2073-4441/15/11/2052>
- <https://www.mdpi.com/2076-3417/13/7/4498>
- <https://www.mdpi.com/2076-3417/13/2/774>
- <https://www.mdpi.com/1999-4923/15/1/135>
- <https://www.mdpi.com/2079-4991/13/1/122>