

## **PERSONAL INFORMATION**

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## **CURRENT POSITION**

09/2019 - today    **Director of Chemical Sciences Department**  
School of Chemical Engineering, National Technical University of Athens

03/2018 - today    **Professor**  
School of Chemical Engineering, Chemical Sciences Department, National Technical University of Athens (NTUA) in the field of "Chemistry and Technology of Inorganic Materials with emphasis on Electrochemical and Chemical Techniques"

## **EDUCATION**

10/1989-05/1994    PhD in Chemical Engineering of University of Patras (Greece) (Degree: Excellent)  
10/1994-07/1989    Diploma in Chemical Engineering, University of Patras (Greece) (Degree: 8.21/10.0)

## **PUBLICATIONS**

Prof. E.A. Pavlatou has published **59** articles in peer-review journals, **1** chapter in a book, **26** articles in full proceedings of international conferences, **72** papers (only abstract) in proceedings of international conferences and **64** papers in proceeding of national conferences. The published work received more than 1565 citations resulting to an h=22 (Scopus, 05/2020). (google scholar h=27, citations 2242).

- Ionic liquid – assisted synthesis of silver mesoparticles as efficient surface enhanced Raman scattering substrates, D. Koukouzelis, A.R.N. Pontillo, S. Koutsoukos, E.A. Pavlatou, A. Detsi, Journal of Molecular Liquids (2020), 306,112929
- Commercial sponges as a novel technology for crude oil removal from seawater and industrial wastewater: a review, M.-A. Gatou, N. Lagopati, D. Tsoukleris, E.A. Pavlatou, Biomedical Journal of Science & Technology Research (2020), 25 (5), 19426-19436
- Using cartoons agents and 3D visualizations based on HTML5 for improving learning in crystal structures in Engineers, K. Dalacosta, E.A. Pavlatou, Computer Applications in Engineering Education (2020) 28 (1), 5-16
- Development of smart composites based on doped-TiO<sub>2</sub> nanoparticles with visible light anticancer properties, E. Galata, E.A. Georgakopoulou, M.-E. Kassalia, N. Papadopoulou-Fermeli, E.A. Pavlatou, Materials (2019) 12 (16), 2589
- Embedding of hybrid MWCNT-Al<sub>2</sub>O<sub>3</sub> particles in Ni matrix: structural, tribological and corrosion studies, N. Chronopoulou, E. Siranidi, A.M. Routsis, H. Zhao, J. Bai, A. Karantonis, E.A. Pavlatou, Surface and Coatings Technology (2018), 350, 672-685

- Electrodeposition and characterization of electroplated Ni/graphene composite coatings, N. Chronopoulou, D. Vozios, P. Schinas, E.A. Pavlatou, *Materials Today: Proceedings* (2018), 5 (14), 27653-27661
- Encapsulation of antifouling organic biocides in poly(Lactic acid) nanoparticles, A. Kamtsikakis, E. Kavetsou, K. Chronaki, E. Kiosidou, E.A. Pavlatou, A. Karana, C. Papaspyrides, A. Detsi, A. Karantonis, S. Vouyiouka, *Bioengineering* (2017) 4 (4), 81
- Cr (VI) removal from aqueous solutions using aluminosilicate minerals in their Pb-exchanged forms, A.G. Thanos, E. Katsou, S. Malamis, V. Drakopoulos, P. Paschalakis, E.A. Pavlatou, K.J. Haralambous, *Applied Clay Science* (2017), 147, 54-62
- Regeneration of HDTMA-modified minerals after sorption with chromate anions, A.G. Thanos, A. Sotiropoulos, S. Malamis, E. Katsou, E.A. Pavlatou, K.J. Haralambous, *Desalination and Water Treatment* (2016), 57, 27869-27878
- Three-dimensional plasma micro–nanotextured cyclo-olefin-polymer surfaces for biomolecule immobilization and environmentally stable superhydrophobic and superoleophobic behavior, K. Ellinas, K. Tsougeni, P. S. Petrou, G. Boulousis, D. Tsoukleris, E.A. Pavlatou, A. Tserepi, S. E. Kakabakos, E. Gogolides, *Chemical Engineering Journal* (2016), 300, 394–403
- Nickel/MWCNT-Al<sub>2</sub>O<sub>3</sub> electrochemical co-deposition: structural properties and mechanistic aspects, F. Giannopoulos, N. Chronopoulou, J. Bai, H. Zhao, D.I. Pantelis, E.A. Pavlatou, A. Karantonis, *Electrochimica Acta* (2016), 207, 76–86
- Effect of nanostructured TiO<sub>2</sub> crystal phase on photoinduced apoptosis of breast cancer epithelial cells, N. Lagopati, E. Tsilibary, P. Falaras, P. Papazafiri, E.A. Pavlatou, E. Kotsopoulou, P. Kitsiou, *International Journal of Nanomedicine* (2014), 9 (1), 3219-3230
- Synthesis of biscoumarins using recyclable and biodegradable task-specific ionic liquids, A. Tzani, A. Douka, A. Papadopoulos, E.A. Pavlatou, E. Voutsas, A. Detsi, *ACS Sustainable Chemistry and Engineering* (2013), 1 (9), 1180-1185
- Photocatalytic oxidation of nitrogen oxides on N-F-doped titania thin films, A.V. Katsanaki, A.G., Kontos, T. Maggos, M. Pelaez, V. Likodimos, E.A. Pavlatou, D.D. Dionysiou, P. Falaras, *Applied Catalysis B: Environmental* (2013), 140-141, 619-625
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- A typology of chemistry classroom environments: exploring the relationships between 10th grade students' perceptions, attitudes and gender, M. Giallousi, V. Gialamas, E.A. Pavlatou, *Learning Environments Research* (2013), 16 (3), 349-366

- Evaluation of modified mineral performance for chromate sorption from aqueous solutions, A. Thanos, E. Katsou, S. Malamis, K. Psarras, E.A. Pavlatou, K.J. Haralambous, *Chemical Engineering Journal* (2012), 211-212, 77-88
- Effects of cis-2-butene-1,4-diol additive and pulse current imposition on production of Ni nanocrystalline coatings, E.A. Pavlatou, P. Gyftou, S. Spanou, *Transactions of the Institute of Metal Finishing* (2012), 90 (5), 267-273
- The impact of 3D visualization types in instructional multimedia applications for teaching, G. Korakakis, A. Boudouvis, J. Pavlatou, E.A. Pavlatou, *Procedia - Social and Behavioral Sciences* (2012), 31, 145-149
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- Ni/nano-TiO<sub>2</sub> composite electrocoatings: correlation between structural characteristics, micro-hardness and wear resistance, S. Spanou, E.A. Pavlatou, *Zeitschrift fur Physikalische Chemie* (2011), 225 (3), 313-324
- Pulse electrodeposition of Ni-P matrix composite coatings reinforced by SiC particles, A. Zoikis-Karathanasis, E.A. Pavlatou, N. Spyrellis, *Journal of Alloys and Compounds* (2010), 494, 396-403
- Pulse electrodeposition of Ni/nano-TiO<sub>2</sub> composites: effect of pulse frequency on deposits properties, S. Spanou, E.A. Pavlatou, *Journal of Applied Electrochemistry* (2010), 40, 1325-1336
- Development, validation and use of a Greek – language questionnaire for assessing learning environments in grade 10 chemistry classes, M. Giallousi, V. Gialamas, N. Spyrellis, E.A. Pavlatou, *International Journal of Science and Mathematics Education* (2010), 8, 761-782
- Survey exploring views of scientists on current trends in Chemistry Education, X. Vamvakeros, E.A. Pavlatou, N. Spyrellis, *Science and Education* (2010), 19, 119-145
- Electrodeposited hard Ni and Ni-P matrix composite coatings: the effect of embedded ceramic particles, N. Spyrellis, A. Zoikis-Karathanasis, P. Gyftou, E.A. Pavlatou, *Galvanotecnica e nuove finiture AIFM* (2009), XIX-LX, 268-286 (in Italian)
- Production of copper powder from printed circuit boards by electrodeposition, I. Masavetas, A. Moutsatsou, E. Nikolaou, S. Spanou, A. Zoikis-Karathanasis, E.A. Pavlatou, N. Spyrellis, *Global NEST Journal* (2009), 11 (2), 241-247
- Nickel and nickel-phosphorous matrix composite electrocoatings, N. Spyrellis, E.A. Pavlatou, S. Spanou, A. Zoikis-Karathanasis, *Transactions of Nonferrous Metals Society of China* (2009), 19 (4), 800-804
- 3D visualization types in multimedia applications for science learning: A case study for 8th grade students in Greece, G. Korakakis, E.A. Pavlatou, J.A. Palyvos, N. Spyrellis, *Computers & Education* (2009), 52, 390-401
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- Electrodeposition of Ni/SiC composites by pulse electrolysis, P. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, Transactions of the Institute of Metal Finishing (2002), 80 (3), 88-91
- Hardening modification of nickel matrix composite electrocoatings containing SiC nanoparticles, P. Gyftou, E.A. Pavlatou, N. Spyrellis, Electroplating and Surface Treatment (2001), IX (1), 23 (in Russian)
- Incorporation of SiC nanoparticles in nickel electrocoatings, P. Gyftou, E.A. Pavlatou, N. Spyrellis, Galvanotecnica e nuove finiture AIFM (2001), XI-LII, 23 (in Italian)
- Ionic interactions in molten complex chlorides from vibrational dephasing, S.A. Kirillov, G.A. Voyiatzis, I.S. Musiyenko, G. M. Photiadis, E.A. Pavlatou, The Journal of Chemical Physics (2001), 114 (8), 3683-3691
- Phase equilibria and structure in the  $\text{Na}_3\text{AlF}_6\text{-Na}_2\text{B}_4\text{O}_7\text{-TiO}_2$ , E.M. Anghel, E.A. Pavlatou, M. Balasoiu, S. Zuca, High Temperature Material Processes (2000), 4 (3), 431-440
- Nickel matrix composite coatings: application in textile machinery and evaluation on cotton products quality, P. Gyftou, E.A. Pavlatou, N. Spyrellis, K.S. Hatzilyberis, Transactions of the Institute of Metal Finishing (2000), 78 (6), 223-226
- Raman spectroscopic study of  $\text{BeCl}_2$  in the crystalline, glassy and liquid state of molten  $\text{BeCl}_2\text{-CsCl}$  mixtures, E.A. Pavlatou, G.N. Papatheodorou, Physical Chemistry Chemical Physics (2000), 2, 1035-1043
- Structure and phase diagram of the  $\text{Na}_2\text{B}_4\text{O}_7\text{-Na}_3\text{AlF}_6$  system, E.M. Anghel, M. Zaharescu, S. Zuca, E.A. Pavlatou, Journal of Materials Science (1999), 34, 3923-3929

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- Dynamics of density and orientation fluctuations in supercooled zinc halides, E.A. Pavlatou, S.N. Yannopoulos, G.N. Papatheodorou, G. Fytas, *The Journal of Physical Chemistry B* (1997), 101, 8748-8755
- Isotropic and anisotropic Raman scattering from molten CsCl-LiCl mixtures: composition and temperature effects, G.N. Papatheodorou, S.G. Kalogrianitis, T.G. Mihopoulos, E.A. Pavlatou, *The Journal of Chemical Physics* (1996), 7, 2660-2667
- Structural properties of ZnCl<sub>2</sub>-ZnBr<sub>2</sub> glasses and melts, E.A. Pavlatou, *Chimica Chronica-New Series* (1994), 23, 265-270
- Dynamic properties of zinc halide glasses and melts, S.N. Yannopoulos, E.A. Pavlatou, *Chimica Chronica-New Series* (1994), 23, 257-263
- Raman scattering from alkali metal halide melt mixtures: composition and temperature effects, S.G. Kalogrianitis, T.G. Mihopoulos, E.A. Pavlatou, G.N. Papatheodorou (1994), *Proceedings of the 10th International Symposium on Molten Salts* (1994), 94-13, 252-264
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- Structural properties of zinc halide melts, E.A. Pavlatou, G.N. Papatheodorou, *Proceedings of the 8th International Symposium on Molten Salts* (1992), 92-16, 72-87
- Dynamic light scattering and low-frequency Raman scattering study of ionic KNO<sub>3</sub>-Ca(NO<sub>3</sub>)<sub>2</sub> mixtures, E.A. Pavlatou, A.K. Rizos, G.N. Papatheodorou, G. Fytas, *Journal of Non-Crystalline Solids* (1991), 131-133 (1), 88-91
- Dynamic light scattering study of ionic KNO<sub>3</sub>-Ca(NO<sub>3</sub>)<sub>2</sub> mixtures, E.A. Pavlatou, G.N. Papatheodorou, A.K. Rizos, G. Fytas, *The Journal of Chemical Physics* (1991), 94 (1), 224-232

## **CONFERENCE PUBLICATIONS**

- Development of smart TiO<sub>2</sub> nanoparticles with photo-induced anticancer properties, E. Galata, E.A. Georgakopoulou, M.-E. Kassalia, N. Papadopoulou-Fermeli, E.A. Pavlatou, 16<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN19), Thessaloniki, 2-5 July, 2019
- Mercury removal from crude oil using natural minerals, M.-A. Gatou, D. Tsoukleris, E.A. Pavlatou, 35<sup>th</sup> International Conference on Environmental Geochemistry and Health, Manchester, United Kingdom, 1-5 July, 2019
- Photo-activated N-doped/TiO<sub>2</sub> nanoparticles with anticancer properties, N. Lagopati, A. Kotsinas, V.G. Gorgoulis, E.A. Pavlatou, World Conference on Engineering and Technology, Frankfurt, 24-26 October, 2019

- Nanomaterials and cellular senescence, E.A. Pavlatou, N. Lagopati, Annual Meeting of the International Cell Senescence Association, Cellular Senescence: the bright & dark side, Athens, Greece, 9-12 September, 2019
- Morphological and structural characterization of tin/tin oxide nanowires, E. Rosolymou, E. Pellicer, J. Sort, E.A. Pavlatou, COST WORKSHOP “Electrochemical processing and corrosion of miniaturized systems”, 13-15 February, Polytechnico di Milano, Milan, 2019
- Effect of silver doped nanostructured titanium dioxide (TiO<sub>2</sub>) on breast cancer epithelial cells, N. Lagopati, E.A. Pavlatou, A. Kotsinas, V.G. Gorgoulis, International Conference on Nanomedicine and Nanotechnology, Rome, 20-21 August, 2018
- Synthesis of tin/tin oxide nanowires by applying template-assisted direct and pulse electrodeposition, E. Rosolymou, E.A. Pavlatou, 69<sup>th</sup> Annual meeting of the International Electrochemical Society-ISE, 2-7 September, Bologna, Italy, 2018
- Effect of nanostructured titanium dioxide on photo-induced cancer treatment, N. Lagopati, E.A. Pavlatou, A. Kotsinas, V.G. Gorgoulis, International Conference Opentox 2018, Athens, 9-11 October, 2018
- Electrodeposition of carbon-based nanocomposites, N. Chronopoulou, A. Karantonis, E.A. Pavlatou, 32<sup>nd</sup> International Conference on Surface Modification Technologies (SMT32), EAST Forum, 27-29 June, San Sebastian, Spain, 2018
- Synthesis of copper, copper-nickel, tin/tin oxide nanowires by applying template-assisted electrodeposition, E. Rosolymou, I. Papadakos, E.A. Pavlatou, C-MAC Days, 20-23 November, Athens, 2017
- Electrodeposited Ni alloy composite coatings reinforced by TiO<sub>2</sub> nanoparticles, E. Rosolymou, D.S. Tsoukleris, M.E. Kassalia, M. Pytharoulis, E.A. Pavlatou, CMAC Days, 20-23 November, Athens, 2017
- Influence of the electrodeposition parameters on the microstructure of composite Ni matrix electrodeposits, N. Chronopoulou, M. Lekka, E.A. Pavlatou, 3rd e-MINDS Workshop, 25-27 October, Barcelona, Spain, 2017
- Synthesis of copper and tin nanowires by applying template assisted direct and pulse electrodeposition, E. Rosolymou, M. E. Kassalia, E.A. Pavlatou, Euromat 2017, European Congress and Exhibition on Advanced Materials and Processes, Conference Cultural Center "Thessaloniki Concert Hall", 17-22 September, Thessaloniki, Greece, 2017
- Synthesis of copper nanowires by applying template-assisted direct and pulse electrodeposition, E. Rosolymou, S. Spanou, S. Hansal, W. Hansal, E.A. Pavlatou, COST WORKSHOP “Electrochemical processing and corrosion of miniaturised systems”, 12-14 October, Athens, 2016
- AAO template assisted electrodeposition of tin nanowires, H. Kazimierczak, P. Ozga, E. Rosolymou, E.A. Pavlatou, COST WORKSHOP “Electrochemical processing and corrosion of miniaturised systems”, 12-14 October, Athens, 2016
- Electrodeposition and characterization of electroplated Ni/graphene composite coatings, N. Chronopoulou, D. Vozios, E.A. Pavlatou, COST WORKSHOP “Electrochemical processing and corrosion of miniaturised systems”, 12-14 October, Athens, 2016

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- Co-electrodeposition of nickel, hybrid multi-walled carbon nanotubes/ $\text{Al}_2\text{O}_3$  particles, F. Giannopoulos, N. Chronopoulou, E.A. Pavlatou, A. Karantonis, 5<sup>th</sup> Regional Symposium on Electrochemistry South East Europe, 7-11 June, Pravets, Bulgaria, 2015
- 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, *Nano & Dispersion Coatings, European Interfinish 2015*, 26-27 February, Politecnico di Milano, Italy, 2015
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- Tribological and photo-induced properties of Ni-based composite coatings produced by electrodeposition, N. Chronopoulou, M. Panagopoulou, D.S. Tsoukleris, S. Spanou, E.A. Pavlatou, 7<sup>th</sup> International Conference on Materials Science and Condensed Matter Physics, 16-19 September, Chisinau, Moldova, 2014
- 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, 65<sup>th</sup> Annual Meeting of the International Society of Electrochemistry, 31 August-5 September, Lausanne Switzerland, 2014
- Electrolytic co-deposition of hybrid multi-walled carbon nanotubes- $\text{Al}_2\text{O}_3$  in nickel matrix, D.S. Tsoukleris, E.A. Pavlatou, N. Chronopoulou, A. Karantonis, C. Sarafoglou, D. Pantelis, 65<sup>th</sup> Annual Meeting of the International Society of Electrochemistry, 31 August-5 September, Lausanne Switzerland, 2014
- Pulse electrodeposition of Ni-based composite coatings and nanostructures: structure, mechanical and photo-induced properties, S. Spanou, D. Tsoukleris, E. Rosolymou, N. Chronopoulou, A. Zoikis-Karathanasis, E.A. Pavlatou, 2<sup>nd</sup> International Surface Treatment Symposium, 25-27 June, Istanbul Technical University, Turkey, 2014
- Photocatalytic degradations of acetaldehyde on doped  $\text{TiO}_2$  embedded glass spherules, D.S. Tsoukleris, V. Binas, G. Kiriakidis, A. Zachopoulos, E.A. Pavlatou, SPEA 8-8<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis, Environmental Applications, 25-28 June, Thessaloniki, Greece, 2014
- Doped titania nanopowders with photocatalytic and antimicrobial properties under visible light irradiation, D.S. Tsoukleris, C. Fratti, C. Barholm-Hansen, A. Alsted Rasmussen, E.A. Pavlatou, SPEA 8-8<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis, Environmental Applications, 25-28 June, Thessaloniki, Greece, 2014

- Electrodeposition of nickel-alloy coatings reinforced by TiO<sub>2</sub> nanoparticles: mechanical and self-cleaning properties, E.A. Pavlatou, 6<sup>th</sup> Pulse Plating Seminar, Austria, 7 March, 2014
- Electrolytic co-deposition of carbon nanotube -Al<sub>2</sub>O<sub>3</sub> microparticle hybrid structures in nickel matrix, E.A. Pavlatou, N. Chronopoulou, A. Karantonis, C. Sarafoglou, D.I. Pantelis, Nanocoatings-International Conference on Functional Nanocoatings, 8-9 July, Politecnico of Milano, Milano, Italy, 2013
- Task-specific ionic liquids as solvents for the development of green synthetic methodologies toward bioactive molecules, A.Tzani, A. Douka, A. Papadopoulos, T. Kosanovic, E.A. Pavlatou, E. Voutsas, A. Detsi, 3<sup>rd</sup> International Symposium on Green Chemistry for Environment, Health and Development, 3-5 October, Skiathos Island-Greece, 2012
- Pulse electrodeposition of Ni-P matrix composite coatings reinforced by TiO<sub>2</sub> nanoparticles, D.S. Tsoukleris, A. Zoikis-Karathanasis, P. Gyftou, A.G. Kontos, E.A. Pavlatou, P. Falaras, 63<sup>rd</sup> Annual Meeting of the ISE, Prague, 19-24 August, 2012
- Alternative, low cost cathodes for dye-sensitized solar cells using electrodeposited Ni-based coatings, D.S. Tsoukleris, T. Stergiopoulos, A. Zoikis-Karathanasis, A. Karantonis, E.A. Pavlatou, P. Falaras, 63<sup>rd</sup> Annual Meeting of the International Society of Electrochemistry-Electrochemistry for Advanced Materials, Technologies and Instrumentation, 19-24 August, Prague, Czech Republic, 2012
- Electrodeposition of nickel-based coatings and nanostructures: effect of pulse current parameters on structure and properties, E.A. Pavlatou, 5<sup>th</sup> European Pulse Plating Seminar, 9 March, Perchtoldsdorf-Austria, 2012
- Ni-P matrix composite coatings: a potential alternative to hard chrome plating, A. Zoikis-Karathanasis, E.A. Pavlatou, EAST – MINDE FORUM 2012, 8 March, Fachhochschule Wiener Neustadt, Austria, 2012
- Chemical and mechanical stability of nanoengineered titania thin films, D.S. Tsoukleris, E.A. Pavlatou, D.D. Dionysiou, P. Falaras, 3<sup>rd</sup> IC4N2011, Crete, 26-30 June, 2011
- Influence of electrodeposition parameters on the structure and morphology of Ni nanowires, A. Mitrokotsa, S. Spanou, P. Gyftou, E.A. Pavlatou, 8<sup>th</sup> International Workshop on Electrodeposited Nanostructures – EDNANO 8, 17-19 March, Milan-Italy, 2011
- Electrolytic codeposition of TiO<sub>2</sub> nano-particles with Ni based matrices: structural aspects, mechanical properties and self-cleaning character of coatings, E.A. Pavlatou, S. Spanou, A. Zoikis-Karathanasis, P. Gyftou, A.I. Kontos, P. Falaras, 61<sup>st</sup> Annual Meeting of the International Society of Electrochemistry, 26 September -1 October Nice, France, 2010
- Structural, mechanical and photo-induced properties of Ni-based composite coatings produced by pulse electrodeposition, E.A. Pavlatou, A. Zoikis-Karathanasis, S. Spanou, P. Gyftou, EAST FORUM – MINDE WORKSHOP 2010, 15-24 June, Schwäbisch Gmünd, Germany, 2010
- Correlation of structural characteristics with tribological behavior of Ni and Ni-P/nano-TiO<sub>2</sub> composite coatings, A. Zoikis-Karathanasis, S. Spanou, P. Gyftou, E.A. Pavlatou, Second Regional Symposium on Electrochemistry – South East Europe, 6-10 June, Belgrade, Serbia, 2010

- Mechanical properties of pulse deposited pure and composite Ni-P coatings, A Zoikis-karathanasis, E.A. Pavlatou, 2<sup>nd</sup> International Conference on Functional Nanocoatings, 28-31 March, Dresden, Germany, 2010
- AAO template-assisted electrodeposition of Ni nanowires, A. Mitrokotsa, A. Zoikis-Karathanasis, S. Spanou, P. Gyftou, E.D. Koronaki, G. Pashos, A.G. Boudouvis, E.A. Pavlatou, 2<sup>nd</sup> International Conference on Functional Nanocoatings, 28-31 March, Dresden, Germany, 2010
- Ni/nano-TiO<sub>2</sub> composite electrocoatings: correlation between structural characteristics and properties, S. Spanou, E.A. Pavlatou, A.I. Kontos, P. Falaras, 2<sup>nd</sup> International Conference on Functional Nanocoatings, Dresden, 28-31 March, 2010
- Tribo-corrosion study of Ni and Ni-P matrix composite coatings, A. Zoikis-Karathanasis, S. Spanou, E.A. Pavlatou, 6<sup>th</sup> International Conference on the Instrumental Methods of Analysis: Modern Trends and Applications, 4-8 October, Athens, Greece, 2009
- Tribological study of nickel matrix composite coatings by utilization of vibrational spectroscopy and microscopy technique, S. Spanou, P. Gyftou, E.A. Pavlatou, 6<sup>th</sup> International Conference on the Instrumental Methods of Analysis: Modern Trends and Applications, 4-8 October, Athens, Greece, 2009
- Pulse plating on nickel based composite coatings, A. Zoikis-Karathanasis, S. Spanou, P. Gyftou, E.A. Pavlatou, N. Spyrellis, EuroInterfinish 2009-Pulse plating and other Electrochemical Techniques, 23-25 September, Bremen, Germany, 2009
- TiO<sub>2</sub> reinforced Ni matrix coatings for photo-induced applications, S. Spanou, E.A. Pavlatou, A.I. Kontos, P. Falaras, 2<sup>nd</sup> EAAOP, Nicosia, 9-11 September, 2009
- A comparative study regarding 10<sup>th</sup> grade chemistry classroom environments and students' attitudes in Greece and Cyprus, M. Giallousi, V. Gialamas, E.A. Pavlatou, European Science Education Research Association (ESERA) Conference 2009, 31 August-4 September, Istanbul, Turkey, 2009
- Development of nickel/nano-TiO<sub>2</sub> composite electrodeposits for innovative photocatalytic applications, S. Spanou, E.A. Pavlatou, A.I. Kontos, P. Falaras, N. Spyrellis, EAST FORUM 2008-Challenging and Testing to Improve Surface Technology, 23-24 October, Trento, Italy, 2008
- Epistemic views of PhD graduate scientists and their impact on Chemical Education, X. Vamvakeros, E.A. Pavlatou, N. Spyrellis, 9<sup>th</sup> European Conference on Research in chemical Education (ECRICE), 6-9 July, Istanbul, Turkey, 2008
- Nickel and nickel/phosphorus matrix composite electrocoatings, S. Spanou, A. Zoikis-Karathanasis, E.A. Pavlatou, N. Spyrellis, INTERFINISH 2008-Nanotechnology and Innovative Coatings, 16-19 June, Pusan, Korea, 2008
- Pulse-plated nickel nanocrystalline deposits: effect of 2 butyne-1,4 diol, E.A. Pavlatou, M. Raptakis, N. Spyrellis, EAST FORUM 2006-Control of deposits Process, 1-2 June, Schwäbisch-Gmünd, Germany, 2006
- Nickel nanostructured coatings: effect of pulse plating, N. Spyrellis, E.A. Pavlatou, International workshop on Nanostructured Materials in Electroplating, 25-30 March, Sandanski, Bulgaria, 2006

- Nickel matrix composite coatings, E.A. Pavlatou, N. Spyrellis *Eurointerfinish 2005 - Surface Technology for novel materials*, 12-13 May, Barcelona, 2005
- Tribological properties of Ni/WC composite coatings, E.A. Pavlatou, M. Stroumbouli, N. Spyrellis, *Eurointerfinish 2005-Surface Technology for novel materials*, 12-13 May, Barcelona, 2005
- Hardening of Ni/SiC composite coatings induced by thermal treatment, P. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, 55<sup>th</sup> Annual Meeting of the International Society of Electrochemistry, 19-24 September, Thessaloniki, Greece, 2004
- Electrodeposition of Ni matrix composite coatings containing WC particles, M. Stroumbouli, G. Matrakas, E.A. Pavlatou, N. Spyrellis, 55<sup>th</sup> Annual Meeting of the International Society of Electrochemistry, 19-24 September, Thessaloniki, Greece, 2004
- Effect of pulse plating parameters on the morphology of Ni composite coatings containing WC nanoparticles, M. Stroumbouli, P. Gyftou, E.A. Pavlatou, N. Spyrellis, 3<sup>rd</sup> International Workshop on Electrodeposited Nanostructures-Nanotechnology And Coatings For Novel Applications, 25-27 March, Newcastle, U.K., 2004
- Students' attitudes towards Chemistry in relation with their perceptions about the classroom environment and the beliefs of chemistry teachers, M. Giallousi, A. Georgiadou, E.A. Pavlatou, N. Spyrellis, *Inorganic reaction mechanisms –Meeting 2003*, 8-10 January, Athens, 2004
- Tribological study of Ni matrix composite coatings containing nano and micro-SiC particles, P.S. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, *Euro-Interfinish 2003: Nanotechnology and Coatings for novel applications*, 2-3 October, Padua, Italy, 2003
- Thermal treatment of pulse plated Ni/SiC coatings: influence of particles sizes, P. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, *EAST Forum 2003: Optimized Electrodeposition for Modern Applications-Pulse plating and Microsystems*, 9-12 April, Copenhagen, Denmark, 2003
- Electrodeposition of Ni/SiC composites by pulse plating techniques, P. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, *EAST Forum 2001: Electrodeposition in Electronics*, 10-13 October, Ouranopolis, Greece, 2001
- Evaluation of embedded SiC particles in nickel matrix composite electrocoatings, P. Gyftou, M. Stroumbouli, E.A. Pavlatou, N. Spyrellis, 2<sup>nd</sup> International Conference on Instrumental Methods of Analysis – Modern Trends and Applications, 5-8 September, Ioannina, Greece, 2001
- Intracrystalline embedding of nano-SiC particles in nickel electrodeposits, P. Gyftou, E.A. Pavlatou, N. Spyrellis, *International Conference and Exhibition of Electrochemistry and Surface Technology*, 4-8 June, Moscow, Russia, 2001
- Nickel matrix composite coatings with SiC prepared under pulse plating conditions, P. Gyftou, S. Psarrou, E.A. Pavlatou, C. Kollia, N. Spyrellis, 51<sup>st</sup> Annual Meeting of The International Society of Electrochemistry – ISE 2000, 3-8 September, Warsaw, Poland, 2000
- Vibrational spectroscopic studies and computer simulations of BiCl<sub>3</sub>-KCl glass-forming mixtures and molecular dynamics simulations of network-forming molten salts, E.A. Pavlatou, A. Spirakis, J. Bessiris, M. Wilson, *EUCHEM Conference on Molten Salts*, 27 June-7 July, Porquerolles, France, 1998

- Raman spectra of TaF<sub>5</sub> phases from 77 to 670 K, I. Markou, E.A. Pavlatou, S. Boghosian, EUCHEM Conference on Molten Salts, 15-20 September, Smolenice Castle, Slovakia, 1996
- Vibrational spectra of network-forming liquids by computer simulation, E.A. Pavlatou, M. Wilson, P.A. Madden, EUCHEM Conference on Molten Salts, 15-20 September, Smolenice Castle, Slovakia, 1996
- Purely discrete Markoffian frequency modulation in molten salts with tetrahedral anions, S.A. Kirillov, G.A. Voyiatzis, G.M. Photiadis, E.A. Pavlatou, XXII European Congress on Molecular Spectroscopy, Essen, Germany, 1994
- Raman spectroscopic study of BeCl<sub>2</sub> in the solid and liquid state, E.A. Pavlatou, V.I. Constadaras, EUCHEM Conference on Molten Salts, 21-26 August, Bad Herrenalb, Germany, 1994
- Vibrational modes and structure of NbF<sub>5</sub> phases from 77 to 700 K, E.A. Pavlatou, S. Boghosian, EUCHEM Conference on Molten Salts, 21-26 August, Bad Herrenalb, Germany, 1994
- Light scattering in glass forming molten salts, E.A. Pavlatou, EUCHEM Conference on Molten Salts, 21-26 August, Bad Herrenalb, Germany, 1994
- Light scattering from molten salts and glasses, E.A. Pavlatou, EUCHEM Conference on Molten Salt, 2-8 September, Rio, Greece, 1990

### **MEMBERSHIPS & REVIEWING ACTIVITIES**

**Journal reviewer** Applied Surface Science, Chemical Engineering Communications, Chemical Education, Coatings, Computers & Education, Diamond & Related Materials, Electrochemistry Communications, 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, Nanomaterials, Nanoscale Research Letters, Thin Solid Films, Tribology Letters, Zeitschrift für Physikalische Chemie

**Memberships** Member of the European Academy of Surface Technology-(2008-present), Member of the International Society of Electrochemistry-(2010-present), Member of the Core Group and MC participant representing Greece of COST Action MP1407 “Electrochemical processing methodologies and corrosion protection for device and systems miniaturization”-(2014-2019), Member of the MC participant representing Greece of COST Action EsSENce “High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications”-(2020-\_\_\_), Member of National Council for Research and Innovation (Engineering Sector)-(2018-2019)

### **TEACHING ACTIVITIES**

She teaches in NTUA: “General Chemistry” (School of Applied Mathematics and Physical Sciences), “Introduction in Chemical Engineering” (School of Chemical Engineering), “Instructional Design of Sciences and Technology” (School of Chemical Engineering), “Nanomaterials and Nanotechnology”

(School of Chemical Engineering), “Science and Technology of Metallic Materials” (School of Chemical Engineering), “Laboratory Exercises I” (Master Program IPP in Science and Technology of Materials, School of Chemical Engineering), “Laboratory Exercises II” (Master Program IPP in Science and Technology of Materials, School of Chemical Engineering).

She teaches in NKUA: “Application of New Educational Technologies in Educational Practice I” (Department of Chemistry), “Application of New Educational Technologies in Educational Practice II” (Department of Chemistry), “Digital Educational Material Development Tools” (Department of Chemistry)

### **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

She has supervised **36** diploma students (NTUA), **23** master students (NTUA and NKUA), **21** PhD students (NTUA-9 of them have been accomplished) and **4** Post-docs (NTUA)

### **RESEARCH GRANTS**

- 2020-...** High-performance carbon-based composites with smart properties for advanced sensing applications, COST Action EsSENce (Representative of Greece)
- 05/2018-08/2019** Development of smart nano TiO<sub>2</sub> with photo-induced anticancer activity, Operational Program Human Resources Development and Lifelong Learning ESPA 2014-2020 (Scientific & Project Coordinator)
- 04/2015-04/2019** Electrochemical processing methodologies and corrosion protection for device and systems miniaturization, COST Action MP1407 (Representative of Greece and Group co-leader of Working Package 1- Electrochemical processes)
- 12/2013-11/2015** Low-cost, green, large scale manufacturing of new age conducting nanowires displays, FP7-SME-2013 (Scientific & Project Coordinator)
- 03/2013-02/2015** SelfClean-Novel self-cleaning, anti-bacterial coatings, preventing disease transmission on everyday touched surfaces, FP7-SME-2012-1 (Scientific & Project Coordinator)
- 03/2012-09/2015** DESIgn and fabrication of Robust superhydrophobic/hydrophilic surfaces and their application in the realization of "smart" microfluidic valves, "THALIS" program of the National Strategic Reference Framework, ESPA 2007-2013 (Researcher)
- 04-06/2012** Pilot Environmental Education for students of the municipality of Naxos and the small Cyclades, Municipality of Naxos and Small Cyclades (Scientific & Project Coordinator)
- 2012-2015** Oil & Sugar-Training and collaboration on material developments and process improvements in oil and sugar production, FP7-PEOPLE-2011-IRSES, Marie Curie Actions (Scientific & Project Coordinator)
- 2010-2013** Environmentally sustainable manufacturing of ultra-functional miniaturized consumer electronics using hyper-fine solder powders, FP7-Capacities Research for SMES-GA 262026 (Scientific Associate)
- 2011-2015** Specifications digital educational platform, development and operation of digital knowledge base, digital configuration and technical metadata-educational material

infrastructure for exemplary teaching and exploiting participatory web, Co-funded by the European Union and the Greek State in the framework of the ESPA, Operational Program MIF 296441 (Scientific Coordinator of Chemistry and Biology Teams)

**2011**

Supporting the implementation of training programs in the 4<sup>th</sup> PACK in the use and exploitation of Information & Communication technologies in the second level education, Ministry of Education, EPEAEK (Participant as basic trainer)

**2008-2010**

Study of the mechanism of Ni nanowires electrodeposition and the effect of the electrolytic parameters on the structure, National Technical University of Athens, PEBE 2008 (Scientific Coordinator)