



Christakis PARASKEVA

Professor

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Education:

1992: PhD in Chemical Engineering, Univ. of Patras, Greece

1986: Diploma in Chemical Engineering, Univ. of Patras, Greece

Previous Employment/Occupation:

1992-2001: Post-Doctoral Fellow, FORTH/ICE-HT & Technical Staff at Dept. of Chemical Engineering, University of Patras.

Research Activities:

- Separation Processes, wastewater treatment by membrane filtration technologies (Ultrafiltration, Nanofiltration, Reverse Osmosis, distillation, crystallization, adsorption, extraction, etc. Applications in agro-industrial wastewater treatment technologies.
- Isolation and purification of bioactive compounds with high added value, from agro-industrial wastewaters.
- Technologies and particle separation methods, Particulate systems, Flow in granular porous materials, filtering of particulate pollutants, colloid particle migration within soil, computer- aided simulation of particle transport and deposition within porous media (dynamic behavior of deep bed filtration systems).
- Water & wastewater treatment methods, Design of water and wastewater treatment systems, Environmental Management and Protection.
- Crystal growth in porous media, consolidation and stabilization of non -aggregated porous materials with inorganic salt precipitation, deposition of sparingly soluble salts in oil extraction rock formations: Applications: Consolidation of poorly consolidated oil reservoirs, stabilization of sandy soils for building purposes, protection of soil from water and wind erosion, water proofing of underground constructions (tunnels) and rainwater reservoirs.

Participation in Research Projects:

- Participation in international (BRITE- EURAM, ENERGY, TEMPUS, INCO-Copernicus, CRAFT, IST, Environment & Climate; Environment and Sustainable Development; Regions of Knowledge, INTERREG, LIFE, etc), national (EPET/SPA, STRIDE, EPET, ESPA, SYNERGASIA, ARISTEIA II, PENED, PAVE, etc) and industrial research projects
- Funding (PI or coordinator; >1,000,000 Euros (laboratory budget)

Publications:

58 refereed journal, 6 papers in books, 51 papers in proceedings of international conferences, 46 papers in proceedings of national conferences.

Guest Editor:

Journal of Chemistry: Environmental Chemistry, Special Issue: Chemical Management and Treatment of Agriculture and Food Industries Wastes

Membranes, MDPI, Special issue: Application of membrane filtration in industrial processes, and in the treatment of water and industrial wastewater.

Conference Participation/Attendance:

Participation in 50 international and 40 national conferences, 8 posters in international conferences.

Teaching:

Unit operations I, Unit Operations II, Laboratory of Unit operations I &II, Mass Transfer, Fundamentals of Chemical Engineering II (fluid mechanics, heat and mass transfer -graduate level).

Professional Affiliations:

American Institute of Chemical Engineers (AIChE), American Filtration Society (AFS), Technical Chamber of Greece (TEE), Greek Association of Chemical Engineers.

Other Achievements

- Reviewer in 55 journals
- Reviewer in Research Proposals submitted to GSRT, EYDE/ETAK (ELIDEK), IKY (Greece), QNRF (QATAR), FONDECYT SCIENCE (CHILE), CARIPLO FOUNDATION-AGER (ITALY)
- Guest Editor in 2 special Issues
- Granted patents (1)
- Member in the organizing committee of National (7) and International conferences (2), member in international scientific committee (1)
- Award for papers in Conferences (2), award for best posters in Conferences (4)
- Participation in more than 30 projects

A. A. Publications in peer reviewed journals

1. C. A. Paraskeva, V. N. Burganos and A. C. Payatakes, "Three-Dimensional trajectory analysis of particle deposition in constricted tubes" *Chem. Eng. Comm.*, **108**, 23-48, 1991, times cited **49**
2. V. N. Burganos, C. A. Paraskeva and A. C. Payatakes, "Three-dimensional trajectory analysis and network simulation of deep bed filtration", *Jl Colloid Interface Science*, **148**, 167-181, 1992, times cited **68**
3. G. N. Constantinides, D. Gindides, S. E. Kattis, K. Kiriaki, C. A. Paraskeva, A. C. Payatakes, D. Polyzos, S. Tsinopoulos, and S. N. Yanopoulos, "Computation of light scattering by certain samples of particles and comparison of experimental results with computations", *Applied Optics*, **37** (31), 7310-7319, 1998, times cited **23**
4. C. A. Paraskeva, P. C. Charalambous, L.-E. Stokka, P. G. Klepetsanis, P. G. Koutsoukos, P. Read, T. Ostvold, and A.C. Payatakes, "Sand-bed consolidation with mineral precipitation", *J Colloid and Interface Sci.*, **232**, 326-339, 2000, times cited **32**
5. Ilias D. Kovaivos, Christakis A. Paraskeva, Petros G. Koutsoukos and Alkiviades Ch. Payatakes, "Adsorption of Atrazine on Soils. Model Study", *Journal of Colloid and Interface Science*, **299**, 88–94, 2006, times cited **74**
6. Maria G. Lioliou, Christakis A. Paraskeva, Petros G. Koutsoukos, Alkiviades C. Payatakes, 'Calcium sulfate precipitation in the presence of water-soluble polymers', *Journal of Colloid and Interface Science*, **303**, 164–170, 2006, times cited **47**
7. C. A Paraskeva, V. G. Papadakis, E. Tsarouchi, D. G. Kanellopoulou, P.G Koutsoukos, "Membrane Processing for Olive Mill Wastewater Fractionation", *Desalination*, **213**, 218-229, 2007, <http://dx.doi.org/10.1016/j.desal.2006.04.087>, times cited **210**
8. C. A. Paraskeva, V.G. Papadakis, D.G. Kanellopoulou, P.G. Koutsoukos and K.C. Angelopoulos, "Membrane filtration of olive mill wastewater (OMW) and OMW fractions' exploitation", *Water Environment Research*, **79** (4), 421-429, 2007, DOI: <http://dx.doi.org/10.2175/106143006X115345>, times cited **52**
9. Maria G. Lioliou, Christakis A. Paraskeva, Petros G. Koutsoukos and Alkiviades C. Payatakes, 'Heterogeneous Nucleation and Growth of Calcium Carbonate on Calcite and Quartz', *Journal of Colloid and Interface Science*, **308** (2), 421-428, 2007, times cited **85**
10. George C. Kagadis, Eugene D. Skouras, George C. Bourantas, Christakis A. Paraskeva, Konstantinos Katsanos, Dimitris Karnabatidis and George C. Nikiforidis, Computational representation and hemodynamic characterization of in vivo acquired severe stenotic renal artery geometries using turbulence modelling, *Medical Engineering Physics*, **30**, 647-660, 2008, times cited **44**

11. K. Stamatelatou, A. Kopsahelis, P.S. Blika, C.A. Paraskeva and G. Lyberatos, 'Anaerobic digestion of olive mill wastewater in a periodic anaerobic baffled reactor (PABR) followed by further effluent purification via membrane separation technologies', *J. of Chemical Technology and Biotechnology*, **84**, 909-917, 2009, DOI:10.1002/jctb.2170, times cited **47**
12. Zagklis, D.P., Arvaniti, E.C., Papadakis, V.G. and Paraskeva, C.A., Sustainability analysis and benchmarking of olive mill wastewater treatment methods, *J of Chemical Technology and Biotechnology* , **88**: 742–750, 2013, DOI 10.1002/jctb.4036, (IF: 2.349, times cited **45**)
13. Amit Bhatnagar, Fabio Kaczala, William Hogland, Marcia Marques, Christakis A. Paraskeva, Vagelis G. Papadakis, Mika Sillanpää, 'Valorization of solid waste products from olive oil industry as potential adsorbents for water pollution control – A review', *Environmental Science and Pollution Research*, **21** (1), pp268-298, 2014, DOI 10.1007/s11356-013-2135-6 (IF: 2.828, times cited: **53**)
14. DP Zagklis, AI Vavouraki, ME Kornaros, CA Paraskeva, 'Purification of Olive Mill Wastewater Phenols through Membrane Filtration and Resin Adsorption/Desorption', *Journal of Hazardous Materials*, **285** (1), 69-76, 2015, doi:10.1016/j.jhazmat.2014.11.038, (IF: 4.529, times cited **113**)
15. IS Ioannou, SS Kontos, PG Koutsoukos, CA Paraskeva, Mathematical Modeling and Experimental Coupling of Solution Layer Crystallization on a Vertically Cold Surface, *Separation and Purification Technology*, 197, 8-17, 2018, <https://doi.org/10.1016/j.seppur.2017.12.038>, times cited **2**
16. Dimitris P. Zagklis, Christakis A. Paraskeva, 'Isolation of organic compounds with high added values from agro-industrial solid wastes', *Journal of Environmental Management*, 2018, **216**, 183-191, 2018, ISSN 0301-4797, <https://doi.org/10.1016/j.jenvman.2017.04.083>, times cited **5**
17. Pantziaros, A. G., Jaho, S., Karga, I., Iakovides, I. C., Koutsoukos, P. G. and Paraskeva, C. A. (2018), Struvite precipitation and COD reduction in a two-step treatment of olive mill wastewater. *J. Chem. Technol. Biotechnol.*, 93: 730–735, 2018, doi:10.1002/jctb.5422, times cited **3**
18. George E. Kapellos, Christakis A. Paraskeva, Nicolas Kalogerakis, Patrick S. Doyle, Theoretical insight into the biodegradation of solitary oil microdroplets moving through a water column, *Bioengineering*, 5, **15**, MDPI, 2018, doi:[10.3390/bioengineering5010015](https://doi.org/10.3390/bioengineering5010015)