

CURRICULUM VITAE

PERSONAL INFORMATION

SURNAME	:	Louli
FIRST NAME	:	Vasiliki
DATE OF BIRTH	:	16-11-1974
PLACE OF BIRTH	:	Athens, Greece
MARITAL STATUS	:	Married with one child
TELEPHONE	:	+30 210 772 3255 (work), +30 6973352949 (mobile)
ORCID	:	0000-0003-4238-1991
E-MAIL	:	svlouli@chemeng.ntua.gr
WEBPAGE	:	http://ttpl.chemeng.ntua.gr/staff/vlouli.html

EDUCATION

1998-2004	Doctoral Dissertation <i>Development of the Supercritical Fluid Extraction Technique and Applications in the Recovery of Natural Product</i> Thermodynamics and Transport Phenomena Laboratory (TTPL) School of Chemical Engineering, National Technical University of Athens (NTUA)
1992-1997	Diploma in Chemical Engineering School of Chemical Engineering, National Technical University of Athens (NTUA). - Diploma Thesis: “Phase Equilibrium in Polymer Solutions with a Cubic Equation of State”, Thermodynamics and Transport Phenomena Laboratory, School of Chem. Eng., NTUA. - Specialization: Process Analysis and Plant Design

PROFESSIONAL EXPERIENCE

April 2014-now	Laboratory Teaching Staff, Department II, School of Chemical Engineering, NTUA
Dec. 2001-2014	Employee of NTUA
1998-Dec 2001	Freelancer-Research associate of TTPL, NTUA

PROFESSIONAL SOCIETIES

1998- Now	Member of Technical Chamber of Greece
1998- Now	Member of Hellenic Association of Chemical Engineers
2002- Now	Member of Hellenic Association of Women Engineers

FOREIGN LANGUAGES

English	Excellent (Certificate of Proficiency in English, University of Cambridge, June 1996)
Italian	Good (Certificato Medio, PALSO, May 1991)
German	Very Good (Zeugnis Zentrale Mittelstufenprüfung, Goethe Institute, January 2001)

TEACHING WORK

My teaching/ laboratory work consists of the following activities:

- Teaching in lab exercises of the following undergraduate courses of the School of Chemical Engineering, NTUA:
 - ✓ **Thermodynamics I** (2^o Semester)
 - ✓ **Unit Operations I & II** (5^o & 6^o Semester)
 - ✓ **Advanced Thermodynamics** (8^o Semester)
 - ✓ **Sustainable Management of Energy Systems** (8^o/ 10^o Semester)
- Supervision and technical/ scientific support of diploma thesis and doctoral dissertations, conducted in the Thermodynamics & Transport Phenomena Laboratory, School of Chemical Engineering, NTUA.

RESEARCH WORK

Publications in International Scientific Journals	41
Contributions in Books	2
Communications in International Scientific Conferences	50
Communications in National Scientific Conferences	23
Research projects	>30
Citations excluding self-citations (Scopus, December 2020)	>1000
h-index (Scopus, 2024)	18

My main scientific areas of interest are the following:

- Thermodynamic modelling of phase equilibria of binary and multicomponent systems which contain polymers, supercritical fluids, hydrocarbons (e.g. natural gas), etc.
- Experimental phase equilibria measurements of mixtures containing supercritical CO₂.
- Experimental study and modelling of Supercritical Fluid Extraction regarding applications such as the purification of waste water and the recovery of oil and high added value compounds (e.g. antioxidants) from natural sources.
- Study of separation processes using conventional and non- conventional green solvents (e.g. ionic liquids, deep eutectic solvents, CO₂).
- Design, modelling and simulation of various processes (e.g. processes regarding natural gas, hydrogen etc.)

PUBLICATIONS IN INTERNATIONAL JOURNALS

- V. Louli and D. Tassios, *Vapor-Liquid Equilibrium in Polymer-Solvent Systems with a Cubic Equation of State*, Fluid Phase Equilibria, 168 (2000) 165. DOI: 10.1016/S0378-3812(99)00339-8
- I. Papamichail, V. Louli and K. Magoulas, *Supercritical Fluid Extraction of Celery Seed Oil*, J. Supercrit. Fluids, 18 (2000) 213. DOI: doi.org/10.1016/S0896-8446(00)00066-8
- Ch. Boukouvalas, V. Louli and K. Magoulas, *Bench-scale Application of Supercritical Fluid Extraction for the Removal of Phenol from Aqueous Solution*, Separ. Sci. Technol., 36 (2001) 2279. DOI: 10.1081/SS-100105918
- V. Louli, G. Folas, E. Voutsas and K. Magoulas, *Extraction of Parsley Seed Oil by Supercritical CO₂*, J. Supercrit. Fluids, 30 (2004) 163. DOI: 10.1016/j.supflu.2003.07.003
- V. Louli, N. Ragoussis and K. Magoulas, *Recovery of Phenolic Antioxidants from Wine Industry By-Products*, Bioresource Technology, 92 (2004) 201. DOI: 10.1016/j.biortech.2003.06.002
- C. Perakis, V. Louli, K. Magoulas, *Supercritical Fluid Extraction of Black Pepper Oil*, Journal of Food Engineering, 71 (2005) 386. DOI: 10.1016/j.jfoodeng.2004.10.049

7. E. Voutsas, V. Louli, C. Boukouvalas, K. Magoulas, D. Tassios, *Thermodynamic Property Calculations with the Universal Mixing Rule for EoS/G^E Models: Results with the Peng-Robinson EoS and a UNIFAC Model*, Fluid Phase Equilibria, 241 (2006) 216. DOI: 10.1016/j.fluid.2005.12.028
8. V. Louli, E. Voutsas, C. Boukouvalas, K. Magoulas, D. Tassios, *Application of the UMR-PRU Model to Multicomponent Systems: Prediction of the Phase Behavior of Synthetic Natural Gas and Oil Systems*, Fluid Phase Equilibria, 261 (2007) 351. DOI: 10.1016/j.fluid.2007.07.025
9. C. Perakis, V. Louli, E. Voutsas, K. Magoulas, *Supercritical CO₂ Extraction of Dittany Oil: Experiments and Modelling*, J. Supercrit. Fluids, 55 (2010) 573. DOI: 10.1016/j.supflu.2010.10.020
10. G.D. Pappa, V. Louli, K. Dedousi, E.C. Voutsas, *Phase equilibria of mixtures containing CO₂ and organic acids using the UMR-PRU model*, J. Supercrit. Fluids, 58 (2011) 321. DOI: 10.1016/j.supflu.2011.07.013
11. V. Louli, G. Pappa, C. Boukouvalas, E. Skouras, E. Solbraa, K.O. Kristensen, E. Voutsas, *Measurement and Prediction of Dew Point Curves of Natural Gas Mixtures*, Fluid Phase Equilibria, 334 (2012) 1. DOI: 10.1016/j.fluid.2012.07.028
12. I. Lemonis, D. Tsimogiannis, V. Louli, E. Voutsas, V. Oreopoulou, K. Magoulas, *Extraction of Dittany (Origanum dictamnus) using supercritical CO₂ and liquid solvent*, J. Supercrit. Fluids 76 (2013) 48. DOI: 10.1016/j.supflu.2013.01.019
13. A. Bampouli, K. Kyriakopoulou, G. Papaefstathiou, V. Louli, M. Krokida, K. Magoulas, *Comparison of different extraction methods of Pistacia lentiscus var. chia leaves: Yield, antioxidant activity and essential oil chemical composition*, Journal of Applied Research on Medicinal and Aromatic Plants, 1(3) (2014) 81-91. DOI: 10.1016/j.jarmap.2014.07.001.
14. A. Bampouli, K. Kyriakopoulou, G. Papaefstathiou, V. Louli, N. Aligiannis, K. Magoulas, M. Krokida, *Evaluation of total antioxidant potential of Pistacia lentiscus var. chia leaves extracts using UHPLC-HRMS*, Journal of Food Engineering, 167, art. no. 7970 (2015) 25-31. DOI: 10.1016/j.jfoodeng.2014.10.021
15. E. Skylogianni, N. Novak, V. Louli, G. Pappa, C. Boukouvalas, E. Skouras, E. Solbraa, E. Voutsas, *Measurement and prediction of dew points of six natural gases*, Fluid Phase Equilibria, 424 (2016) 8-15. DOI: 10.1016/j.fluid.2015.08.025
16. E. Boli, M. Savvidou, D. Logothetis, V. Louli, G. Pappa, E. Voutsas, F. Kolisis, K. Magoulas, *Magnetic harvesting of Nannochloropsis oceanica microalgae cultivations*, Separ. Sci. Technol., 56 (2021) 730-737. DOI: 10.1080/01496395.2017.1296463
17. N. Novak, V. Louli, S. Skouras, E. Voutsas, *Prediction of dew points and liquid dropouts of gas condensate mixtures*, Fluid Phase Equilibria, 457 (2018) 62-73. DOI: 10.1016/j.fluid.2017.10.024
18. V. Koulocheris, V. Louli, E. Panteli, S. Skouras, E. Voutsas, *Modelling of elemental mercury solubility in natural gas components*, Fuel 233 (2018) 558-564. DOI: 10.1016/j.fuel.2018.06.077
19. D. Kavoura, K. Kyriakopoulou, G. Papaefstathiou, E. Spanidi, K. Gardikis, V. Louli, N. Aligiannis, M. Krokida, K. Magoulas, *Supercritical CO₂ extraction of Salvia fruticose*, J. Supercritical Fluids, 146 (2019) 159-164. DOI: 10.1016/j.supflu.2019.01.010
20. N. Novak, V. Louli, E. Voutsas, *Prediction of Vapor-Liquid Equilibrium and Thermodynamic Properties of Natural Gas and Gas Condensates*, Ind. Eng. Chem. Res. 58 (2019) 7370-7388. DOI: 10.1021/acs.iecr.9b00756
21. V. Koulocheris, V. Louli, E. Panteli, S. Skouras, E. Voutsas, *Modelling of hydrogen vapor-liquid equilibrium with oil & gas components*, Fluid Phase Equilibria 494 (2019) 125-134. DOI: 10.1016/j.fluid.2019.04.010
22. V. Koulocheris, M. Panteli, E. Petropoulou, V. Louli, and E. Voutsas, *Modeling of Simultaneous Chemical and Phase Equilibria in Systems Involving Non-reactive and Reactive Azeotropes*, Ind. Eng. Chem. Res. 59 (2020) 8836-8847. DOI: 10.1021/acs.iecr.0c00468
23. M.G. Savvidou, E. Boli, D. Logothetis, Th. Lymperopoulou, A. Ferraro, V. Louli, D. Mamma, D. Kekos, K. Magoulas, G.N. Kolisis, *A study on the effect of macro-and micro-nutrients on nannochloropsis oceanica growth, fatty acid composition and magnetic harvesting efficiency*, Plants, 9 (2020) 660. DOI:10.3390/plants9050660
24. M.G. Savvidou, M. M. Dardavila, I. Georgiopoulou, V. Louli, H. Stamatis, D. Kekos, E. Voutsas, *Optimization of Microalga Chlorella vulgaris Magnetic Harvesting*, Nanomaterials, 11(6) (2021) 1614. DOI: 10.3390/nano11061614
25. V. Koulocheris, A. Plakia, V. Louli, E. Panteli, E. Voutsas, *Calculating the chemical and phase equilibria of mercury in natural gas*, Fluid Phase Equilibria 544-545 (2021) 113089. DOI: 10.1016/j.fluid.2021.113089
26. I. Georgiopoulou, S. Tzima, G. Pappa, V. Louli, E. Voutsas, K. Magoulas, *Experimental Design and Optimization of Recovering Bioactive Compounds from Chlorella vulgaris through Conventional Extraction*, Molecules 2022, 27(1), 29. DOI: 10.3390/molecules27010029

27. S. Pappou, M. M. Dardavila, M.G. Savvidou, V. Louli, K. Magoulas, E. Voutsas, *Extraction of Bioactive Compounds from Ulva lactuca*, Appl. Sci. 2022, 12(4), 2117. DOI: 10.3390/app12042117
28. N. Prinos, E. Boli, V. Louli, G. Pappa, K. Magoulas, E. Voutsas, *Solubilities of caffeic acid and tyrosol in two protic ionic liquids and one deep eutectic solvent*, Fluid Phase Equilibria 559 (2022) 113462. DOI: 10.1016/j.fluid.2022.113462
29. I.-G. Athanasoulia, V. Louli, P. Schinas, V. Rinotas, E. Douni, P. Tarantili, K. Magoulas *The effect of foaming process with supercritical CO₂ on the morphology and properties of 3D porous polylactic acid scaffolds*, Polym Eng Sci. 2022;62:2459–2475. DOI: 10.1002/pen.26020
30. I. Georgiopolou, S. Tzima, V. Louli, K. Magoulas, *Supercritical CO₂ Extraction of High-Added Value Compounds from Chlorella vulgaris: Experimental Design, Modelling and Optimization*, Molecules 2022, 27(18), 5884. DOI: 10.3390/molecules27185884
31. E. Boli, N. Prinos, V. Louli, G. Pappa, H. Stamatis, K. Magoulas, E. Voutsas, *Recovery of Bioactive Extracts from Olive Leaves Using Conventional and Microwave-Assisted Extraction with Classical and Deep Eutectic Solvents*, Separations 2022, 9(9), 255. DOI: 10.3390/separations9090255
32. A. Plakia, V. Koulocheris, V. Louli, E. Voutsas, *Vapor-liquid equilibrium of acid gases with imidazolium-based ionic liquids using the UMR-PRU model*, Chemical Thermodynamics and Thermal Analysis, 2022, 8, 100097. DOI: 10.1016/j.ctta.2022.100097
33. M. M. Dardavila, S. Pappou, M.G. Savvidou, V. Louli, P. Katapodis, H. Stamatis, K. Magoulas, E. Voutsas, *Extraction of Bioactive Compounds from C. vulgaris Biomass Using Deep Eutectic Solvents*, Molecules, 2023, 28(1), 415. DOI: 10.3390/molecules28010415
34. M.G. Savvidou, I. Georgiopolou, N. Antoniou, S. Tzima, M. Kontou, V. Louli, Ch. Fatouros, K. Magoulas, F. Kolisis, *Extracts from Chlorella vulgaris Protect Mesenchymal Stromal Cells from Oxidative Stress Induced by Hydrogen Peroxide*, Plants, 2023, 12(2), 361. DOI: 10.3390/plants12020361
35. S. Tzima, I. Georgiopolou, V. Louli, K. Magoulas *Recent Advances in Supercritical CO₂ Extraction of Pigments, Lipids and Bioactive Compounds from Microalgae*, Molecules, 2023, 28(3), 1410. DOI: 10.3390/molecules28031410
36. I. Georgiopolou, S. Tzima, V. Louli, K. Magoulas, *Process Optimization of Microwave-Assisted Extraction of Chlorophyll, Carotenoid and Phenolic Compounds from Chlorella vulgaris and Comparison with Conventional and Supercritical Fluid Extraction*, Applied Sciences (Switzerland), 2023, 13(4), 2740. DOI: 10.3390/app13042740
37. I. Georgiopolou, V. Louli, K. Magoulas, *Comparative Study of Conventional, Microwave-Assisted and Supercritical Fluid Extraction of Bioactive Compounds from Microalgae: The Case of Scenedesmus obliquus*, Separations, 2023, 10(5), 290. DOI: 10.3390/separations10050290
38. V. Koulocheris, V. Louli, E. Panteli, E. Voutsas, *Simulation of mercury distribution in an offshore natural gas processing platform*, Fuel, 2023, 345, 128164
39. G. Tasios, V. Louli, S. Skouras, E. Solbraa, E. Voutsas, *Development of a New Group Contribution Equation of State for associating compounds*, Fluid Phase Equilibria, 2023, 571, 113824. DOI: 10.1016/j.fluid.2023.113824
40. V. Koulocheris, M. Koliva, V. Louli, E. Voutsas, *Modelling of pure refrigerant thermodynamic properties and vapor-liquid equilibrium of refrigerant mixtures with the UMR-PRU model*, Fluid Phase Equilibria, 2024, 580, 114052. DOI: 10.1016/j.fluid.2024.114052
41. G. Tasios, V. Louli, E. Skouras, E. Solbraa, E. Voutsas, *Thermodynamic modelling of systems involved in natural gas dehydration with triethylene glycol using a group contribution association model*, Fluid Phase Equilibria, 2025, 588, 114241. DOI: 10.1016/j.fluid.2024.114241

CONTRIBUTIONS IN BOOKS

1. V. Louli, Ch. Boukouvalas and K. Magoulas, *Extractive Applications in Agro-Food Sector*, in: State of the Art Book on Supercritical Fluids, AINIA (Eds.), 2004.
2. E. Voutsas, N. Novak, V. Louli, G. Pappa, E. Petropoulou, C. Boukouvalas, E. Panteli, E. Skouras *Thermodynamic modelling of natural gas and gas condensate mixtures*, in: Natural Gas Processing from Midstream to Downstream, 1st Edition, Wiley 2019.

OTHER SCIENTIFIC ACTIVITIES

- **Reviewer in more than 15 International Scientific Journals** (e.g. Fluid Phase Equilibria, Journal of Supercritical Fluids, The Canadian Journal of Chemical Engineering, Asia Pacific Journal of Chemical Engineering, Chemical Engineering & Technology, Industrial & Engineering Chemistry Research, Journal of Agricultural & Food Chemistry, Bioresource Technology, Karbala International Journal of Modern Science, Industrial Crops and Products, Journal of Chemical & Engineering Data, Chemical Journals, International Journal of Chemical Engineering, Molecules, European Journal of Lipid Science and Technology, etc.)
- **Member of Committees**
 - ✓ 28th European Seminar on Applied Thermodynamics, Athens, 11-14 June, 2015.
 - ✓ 12th Panhellenic Scientific Conference of Chemical Engineering, Athens, Greece, 29-31 May, 2019.