

NAME **IOANNIS TSIVINTZELIS**
 DATE OF BIRTH **14/12/1974**
 PLACE OF RESIDENCE **THESSALONIKI**
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- 4/2023 – **Associate Professor**, Aristotle University of Thessaloniki, Department of Chemical Engineering.
- 3/2018 – 4/2023 **Assistant Professor**, Aristotle University of Thessaloniki, Department of Chemical Engineering.
- 1/2014 – 3/2018 **Lecturer**, Aristotle University of Thessaloniki, Department of Chemical Engineering.
- 2010 - 2013 **Senior Researcher**, Technical University of Denmark, DTU, Department of Chemical and Biochemical Engineering and Center for Energy Resources Engineering.
- 2007 - 2010 **Post Doctoral Researcher**, Technical University of Denmark, DTU, Department of Chemical and Biochemical Engineering and Center for Energy Resources Engineering (former Institute for Phase Equilibria and Separation Processes).
- 2006 - 2007 **Post Doctoral Researcher**, Aristotle University of Thessaloniki, Department of Chemical Engineering.
- 2006 **Teaching** the course “Characterization, production and types of gas fuels” 1st Institute of Vocational Training of Thessaloniki & Institute of Vocational Training of Neapoli, Greece.
- 2002 - 2006 **PhD in Chemical Engineering**, Aristotle University of Thessaloniki, Department of Chemical Engineering.
- 2000 – 2002 **Military service (obligatory)**
- 1994 – 2000 Part time employment at various periods, Librocom Publications, Development of textbooks and CD-ROMs for educational purposes.
- 2000 **Diploma in Chemical Engineering**, Aristotle University of Thessaloniki, Department of Chemical Engineering.

Publications and Research Overview

1.	Publications in peer review journals	94
	First author or last author	50
2.	Chapters in books	4
4.	Publications in conference proceedings	95
	International conferences	56
	Greek conferences	39
5.	Participation in research projects	15

Citations

	Scopus	Web of science	Google Scholar
Total Citations (8/2024)	3001	2674	3850
Excluding self-citations (8/2024)	2620	2255	
h-index (8/2022)	29	28	32

Participation in Research Projects

2023 – 2024	Scaling-up of a highly modular rotating packed bed plant with an efficient solvent for capture cost reduction, HiRECORD, European Commission, HORIZON.2.5 - Climate, Energy and Mobility.
2020 – 2023	Investigation under realistic conditions of innovative pilot-scale process using phase-change solvents for CO ₂ capture from quicklime process, REALCAP, Greek Secretariat of Research and Technology.
2021 – 2023	Conversion of Captured CO ₂ to Industrial Chemicals - CoCaCO ₂ la, Greek Secretariat of Research and Technology.
2021 – 2023	Development of luteolin based products for the treatment of periodontitis, Luteopaste, Greek Secretariat of Research and Technology
2019 - 2022	NAno-Reinforced Polypropylene multifilament Yarns (NARPY), Principal Investigator (PI), Greek Secretariat of Research and Technology.
2017 - 2019	Systematic Design and Testing of Advanced Rotating Packed Bed Processes and Phase-Change Solvents for Intensified Post-Combustion CO ₂ Capture (ROLINCAP), European Commission, Horizon 2020.
2014 - 2015	CO ₂ Capture, Transport and Storage Processes: Thermodynamic Investigation of Relevant Fluid Mixtures, Coordinator/ Principal Investigator (PI), John S. Latsis Public Benefit Foundation.
2014 - 2015	Production of novel polymeric materials for biomedical applications, Principal Investigator (PI), AUTH Research Committee.
2008 - 2013	Chemicals in gas and oil processing (<i>CHIGP</i>), GASSCO Norway, Statoil Norway and others.
2007 - 2008	Advanced Thermodynamic Tools for Computer-Aided Product Design, Danish Research Council for Technology and Production Sciences.
2006 - 2007	Development of dental bioactive ceramic materials conjugated with biopolymer scaffolds for tissue engineering, GSRT/PENED 2003.
2005 - 2007	Study of polyelectrolytic solutions of dendrimers and hyperbranched polymers as solubility enhancement agents and as vehicles for drug delivery and controlled/release purposes, GSRT/PENED 2003.
2005-2007	Development of New Ecological Composite Materials, Pythagoras II, 2005
2006-2007	Thermodynamics of mixtures with ionic liquids, INTAS (<i>International association for the promotion of co-operation with scientists from the new independent states of the former soviet union</i>).
2002-2005	Production of biodegradable and biocompatible microcellular polymers for biomedical applications, GSRT/PENED 2001.

Teaching Activities

- 2018 -** Post graduate level: Thermomechanical Analysis-Calorimetry-Thermal Aging
- 2014 -** Undergraduate level: Polymer science and Technology, Physical chemistry, Nanotechnology and soft matter, Chemistry lab.
- 2018-2022** Post graduate level: Applied Thermodynamics, Modeling and Simulation of molecular systems
- 2016-2017** Post graduate level: Physical Chemistry of molecular and macromolecular systems, Nanostructures and physical chemistry of soft matter

Supervision Of Graduate Students and Postdoctoral Fellows

- 2019 - 2024** Supervisor of two post-doctoral fellows, Department of Chemical Engineering, AUTH
- 2019 - 2023** Supervisor of two PhD students, Department of Chemical Engineering, AUTH
- 2014 -** Supervisor of 26 graduate students (diploma thesis), Department of Chemical Engineering, AUTH
- 2010 - 2011** Co-Supervisor of 4 master students (diploma thesis), Department of Chemical and Biochemical Engineering of Technical University of Denmark, DTU

Invited Lectures

- **“Foaming of polymers with supercritical fluids: A thermodynamic investigation”**, The 2nd International Conference on Physical Chemistry and Spectroscopy Sep. 27-29, 2023, Department of Chemistry, University of Patras, Greece.
- **“Phase equilibria for biodiesel-related compounds with CPA”**, KT Consortium Annual Meeting 2018, Technical University of Denmark, Rungstedgaard, Denmark, 19-21 June 2018.
- **“Pharmaceuticals and polymers phase equilibria”**, KT Consortium Annual Meeting 2018, Technical University of Denmark, Rungstedgaard, Denmark, 19-21 June 2018.
- **“Screening of Solvents for Separation Processes”**, Natural Products, Biological Activities and Technological Applications Summer School, University of Thessaloniki, 27-29 April 2018.
- **“Interactions of Polymers and Supercritical Fluids: Advantages and Limitation of High Pressure Processes”**, Life Long Learning Intensive Course: "PIHPT - Process Intensification by High Pressure Technologies – Actual Strategies for Energy and Resources Conservation", 29th of June to 16th July 2014, University of Strathclyde, Glasgow, Scotland.
- **“Advanced Equations of State for Modeling the Phase Behavior of Systems with Supercritical, Liquid or Gaseous CO₂”** Center for Energy Resources Engineering (CERE) discussion meeting, Technical University of Denmark, Snekersten, Denmark, 25-27 June 2014,
- **“Modeling systems with triethylene glycol”**. Workshop of Chemicals in gas and oil processing (CHIGP) project, Technical University of Denmark, Department of Chemical and Biochemical Engineering, Center for Energy Resources Engineering (CERE), December 2014, Denmark.

Guest Editor in Special Issues

- Guest Editor in the “Recent Advances in Carbon Capture” special Issue of the Journal Separations (IF. 3.344)
- Associate Guest Editor in the Special Issue “11th Panhellenic Scientific Conference of Chemical Engineering”, Materials Today: Proceedings, 5, 2018, 27327 – 27672.

Member of Editorial Boards

- Chemical Thermodynamics and Thermal Analysis, *Elsevier*
- Soft Matter Physics, *Frontiers in Physics (Review Editor)*

Reviewer in Scientific Journals

1. Journal of Supercritical Fluids (Elsevier)(*Ioannis Tsivintzelis received the Certificate of Excellence in Reviewing for the year 2013 recognition of an outstanding contribution to the quality of the journal*)
2. Chemical Engineering Data (ACS)
3. Fluid Phase Equilibria (Elsevier)
4. Journal of Natural Gas Science & Engineering (Elsevier)
5. Journal of Chemical Thermodynamics (Elsevier)
6. Polymer (Elsevier)
7. Polymers (MDPI)
8. Molecules (MDPI)
9. Chemical Engineering Science (Elsevier)
10. Industrial and Engineering Chemistry Research (ACS)
11. Energy and Fuels (ACS)
12. RSC Advances (RSC)
13. Physical Chemistry Chemical Physics (RSC), etc.

Key Research Topics

- Processes with alternative solvents: Supercritical Fluids and Ionic Liquids.
- Thermodynamic models – Statistical thermodynamics.
- Biomaterials.
- Nanocomposite polymers, porous and nanofibrous polymer structures.
- Experimental measurement of phase equilibria.
- Modeling of mixtures with non ideal behavior (systems with polymers, pharmaceuticals, supercritical fluids, ionic liquids, and hydrogen bonding fluids).

Organization of conferences

Member of the Organizing Committee

- 14th Panhellenic Scientific Conference of Chemical Engineering, 29-31 May 2024, Thessaloniki Greece.
- 14th Hellenic Polymer Society International Conference, 22-25 November 2023, Thessaloniki, Greece.
- 70th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), 28-31 August 2022, Thessaloniki, Greece
- 11th Panhellenic Scientific Conference of Chemical Engineering, 25-27 May 2017, Thessaloniki Greece.

Member of the Scientific Committee

- 14th Panhellenic Scientific Conference of Chemical Engineering, 29-31 May 2024, Thessaloniki Greece.
- 14th Hellenic Polymer Society International Conference, 22-25 November 2023, Thessaloniki, Greece.
- 13th Panhellenic Scientific Conference of Chemical Engineering, 2-4 June 2022, Patra, Greece.
- 12th Panhellenic Scientific Conference of Chemical Engineering, 29-31 May 2019, Athens Greece.

PUBLICATIONS:

Book Chapters:

4. A.I. Papadopoulos, I. Tsvintzelis, P. Linke, P. Seferlis "Computer Aided Molecular Design: Fundamentals, Methods and Applications", in "Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering, Elsevier 2018 <https://doi.org/10.1016/B978-0-12-409547-2.14342-2>
3. I. Tsvintzelis, C. Panayiotou "Molecular Thermodynamics of Solutions" in *Enthalpy and Internal Energy: Liquids, Solutions and Vapours*, Edited by Emmerich Wilhelm and Trevor Letcher, Royal Society of Chemistry, 2018.
2. I. Tsvintzelis, C. Panayiotou "Equation-of-State Approach in Polymer Solution and Polymer Foaming Thermodynamics" in *Biofoams: Science and Applications of Bio-Based Cellular and Porous Materials*, Edited by Salvatore Iannace, Chul B. Park, CRC Press, Boca Raton, London, New York, 2016.
1. I. Tsvintzelis, C. Panayiotou "Molecular Thermodynamics of Hydrogen-Bonded Systems", in *Handbook of Surface and Colloid Chemistry*, Fourth Edition, Edited by K. S. Birdi, CRC Press, Boca Raton, London, New York, 2015.

Peer Review Journals:

94. C. Spartali A-M G. Psarra, S.I. Marras, C. Tsiptsias, A. Georgantopoulos, F.D. Kalousi, A. Tsakalof, I. Tsvintzelis, Silybin functionalized PCL electrospun nanofibers for potential pharmaceutical and biomedical applications, (2024) *Polymers*, 16 (16), 2346, <https://doi.org/10.3390/polym16162346>
93. Kontos, G., Anna Soldatou, M., Tsvintzelis, I., CO₂ solubility in amine based deep eutectic solvents: Review of literature data, experimental measurements for choline chloride plus 3-amino-1-propanol or 3-(methylamino)propylamine aqueous solutions and modeling with the modified Kent-Eisenberg model, (2024) *Journal of Chemical Thermodynamics*, 197, art. no. 107327, <https://doi.org/10.1016/j.jct.2024.107327>
92. Tsiptsias, C., Leontiadis, K., Ntampou, X., Tsvintzelis, I., Modification of Talc and Mechanical Properties of Polypropylene-Modified Talc Composite Drawn Fibers, (2024) *Journal of Composites Science*, 8 (3), art. no. 91, <https://doi.org/10.3390/jcs8030091>
91. Kontos, G., Tsiptsias, C., Tsvintzelis, I., Cellulose Acetate-Ionic Liquid Blends as Potential Polymers for Efficient CO₂ Separation Membranes, (2024) *Polymers*, 16 (4), art. no. 554, <https://doi.org/10.3390/polym16040554>
90. Leontiadis, K., Theodoratou, K., Tsiptsias, C., Tsvintzelis, I., Properties Optimization of Polypropylene/Montmorillonite Nanocomposite Drawn Fibers, (2024) *Nanomaterials*, 14 (2), art. no. 223, <https://doi.org/10.3390/nano14020223>
89. Leontiadis, K., Achilias D.S., Tsvintzelis I., Effect of the Filler Modification on the Thermal and Mechanical Properties of Composite Polypropylene/Wollastonite Drawn Fibers (2023) *Polymers*, 15(14), 2986, <https://doi.org/10.3390/polym15142986>.
88. Kontos, G., Leontiadis, K., Tsvintzelis, I., CO₂ solubility in aqueous solutions of blended amines: Experimental data for mixtures with MDEA, AMP and MPA and modeling with the modified Kent-Eisenberg model (2023) *Fluid Phase Equilibria*, 570, 113800, <https://doi.org/10.1016/j.fluid.2023.113800>
87. Tsiptsias, C., Fardis, D., Ntampou, X., Tsvintzelis, I., Panayiotou, C.. Thermal Behavior of Poly(vinyl alcohol) in the Form of Physically Crosslinked Film (2023), *Polymers*, 2023, 15(8), 1843, <https://doi.org/10.3390/polym15081843>
86. Tzirakis F, Papadopoulos A.I., Seferlis P, Tsvintzelis I, CO₂ Solubility in Aqueous N-methylcyclohexylamine (MCA) and N-cyclohexyl-1,3-propanediamine (CHAP) Solutions, (2023) *AIChE Journal*, 69(3), e17982, DOI: 10.1002/aic.17982
85. Perdomo F.A., Khalit S.H., Graham E.J., Tzirakis F., Papadopoulos A.I., Tsvintzelis I., Seferlis P., Adjiman C.S., Jackson G., Galindo A., A predictive group-contribution framework for the thermodynamic modelling of CO₂ absorption in cyclic amines, alkyl polyamines, alkanolamines and

- phase-change amines: New data and SAFT- γ Mie parameters. (2023) *Fluid Phase Equilibria*, 566, 113635, <https://doi.org/10.1016/j.fluid.2022.113635>
84. Kontos G., Soldatou M.-A., Tzimpilis E., Tsvintzelis I., Solubility of CO₂ in 2-amino-2-methyl-1-propanol (AMP) and 3-(methylamino)propylamine (MAPA): Experimental investigation and modeling with the Cubic-Plus-Association and the modified Kent-Eisenberg models. (2022) *Separations*, 3, 338. <https://doi.org/10.3390/separations9110338>
 83. Tsvintzelis I., Koutsou G., Kontogeorgis G.M., Modeling Binary and Multicomponent Systems Containing Supercritical CO₂ with Polyethylene Glycols and Compounds Relevant to the Biodiesel Production. (2022) *Molecules* 27, 5785. <https://doi.org/10.3390/molecules27185785>
 82. Tsiptsias, C.; Tsvintzelis, I. On the Thermodynamic Thermal Properties of Quercetin and Similar Pharmaceuticals. (2022) *Molecules* 27, 6630.
 81. Tsiptsias C., Tsvintzelis I., Insights on thermodynamic thermal properties and infrared spectroscopic band assignments of gallic acid. (2022) *Journal of Pharmaceutical and Biomedical Analysis*, Volume 221, 115065. <https://doi.org/10.1016/j.jpba.2022.115065>.
 80. Tsiptsias, C.; Spartali, C.; Marras, S.I.; Ntampou, X.; Tsvintzelis, I.; Panayiotou, C. Thermochemical Transition in Low Molecular Weight Substances: The Example of the Silybin Flavonoid. *Molecules* 2022, 27, 6345. <https://doi.org/10.3390/molecules27196345>
 79. Tsiptsias C., Gkouzouma G., Leontiadis K., Tsvintzelis I., Effect of antioxidant and compatibilizer on mechanical properties of virgin and thermally aged polypropylene drawn fibers, (2022) *Textiles*, 2(3), 499-510. <https://doi.org/10.3390/textiles2030028>
 78. Tsiptsias, C.; Foukas, G.-R.P.; Papaioannou, S.-M.; Tzimpilis, E.; Tsvintzelis, I. On the Thermochemical Transition Depression of Cellulose Acetate Composite Membranes. (2022) *Polymers*, 14, 3434. <https://doi.org/10.3390/polym14163434>
 77. Tsiptsias C., Karabinaki O., Christofilos D., Tzimpilis E., Tsvintzelis I., Panayiotou C., On polymer-polymer miscibility and cellulose ester blends: A case study. (2022) *Thermochimica Acta*, 714, 179265; <https://doi.org/10.1016/j.tca.2022.179265>
 76. Leontiadis K., Tsiptsias C., Messaritakis S., Terzaki A., Xidas P., Mystikos K., Tzimpilis E., Tsvintzelis I., Surface Response Analysis for the Optimization of Mechanical and Thermal Properties of Polypropylene Composite Drawn Fibers with Talc and Carbon Nanotubes, (2022) *Polymers*, Volume 14 (7), 1329; <https://doi.org/10.3390/polym14071329>
 75. Leontiadis K., Tsiptsias C., Messaritakis S., Terzaki A., Xidas P., Mystikos K., Tzimpilis E., Tsvintzelis I., Optimization of Thermal and Mechanical Properties of Polypropylene-Wollastonite Composite Drawn Fibers Based on Surface Response Analysis, (2022) *Polymers*, Volume 14 (5), 924; <https://doi.org/10.3390/polym14050924>
 74. Mitraka G.-C., Kontogiannopoulos K.N., Tsvintzelis I., Zouboulis A.I., Kougias P.G., Optimization of supercritical carbon dioxide explosion for sewage sludge pre-treatment using response surface methodology, (2022), *Chemosphere*, Volume 297, 133989; <https://doi.org/10.1016/j.chemosphere.2022.133989>
 73. Tsiptsias C., Leontiadis K., Messaritakis S., Terzaki A., Xidas P., Mystikos K., Tzimpilis E., Tsvintzelis I., Experimental Investigation of Polypropylene Composite Drawn Fibers with Talc, Wollastonite, Attapulgit and Single-Wall Carbon Nanotubes, (2022) *Polymers*, Volume 14 (2), 260; <https://doi.org/10.3390/polym14020260>
 72. Tsiptsias C., Nikolaidou E.G., Ntampou X., Tsvintzelis, I., Panayiotou, C., Thermo-chemical transition in cellulose esters and other polymers, (2022) *Thermochimica Acta*, vol 707, 179106; <https://doi.org/10.1016/j.tca.2021.179106>
 71. Tzirakis F, Papadopoulos A.I., Seferlis P, Tsvintzelis I, CO₂ Solubility in Diethylenetriamine (DETA) and Triethylenetetramine (TETA) aqueous mixtures: Experimental Investigation and Correlation Using the CPA Equation of State, (2021) *Chemical Thermodynamics and Thermal Analysis*, Vol 3-4, 100017; <https://doi.org/10.1016/j.cta.2021.100017>
 70. Tzirakis, F., Tsvintzelis, I., Papadopoulos, A.I., Seferlis, P. Experimental investigation of phase change amine solutions used in CO₂ capture applications: Systems with dimethylcyclohexylamine (DMCA) and N-cyclohexyl-1,3-propanediamine (CHAP) or 3-methylaminopropylamine (MAPA), (2021)

69. Arampatzis A.S., Kontogiannopoulos K.N., Theodoridis K., Aggelidou E., Rat A., Willems A., Tsvintzelis I., Papageorgiou V.P., Kritis A., Assimopoulou A.N. Electrospun wound dressings containing bioactive natural products: physicochemical characterization and biological assessment, (2021) *Biomaterials Research*, 25, Article number: 23 <https://doi.org/10.1186/s40824-021-00223-9>
68. Arampatzis A.S., Giannakoula K., Kontogiannopoulos K.N., Theodoridis K., Aggelidou E., Rat A., Kampasakali E., Willems A., Christofilos D., Kritis A., Papageorgiou V.P., Tsvintzelis I., Assimopoulou A.N. Novel electrospun poly-hydroxybutyrate scaffolds as carriers for the wound healing agents alkannins and shikonins, (2021) *Regenerative Biomaterials*, 8 (3), 1-16. <https://doi.org/10.1093/rb/rbab011>
67. Tsvintzelis I., Karakatsani E., Kontogeorgis G.M. [Costa Tsonopoulos – his legacy and some personal reflections on cubic equations of state and beyond](#), (2021) *Fluid Phase Equilibria*, 533, 112895.
66. Papadopoulos A.I., Perdomo F.A., Tzirakis F., Shavaliyevac G., Tsvintzelis I., Kazepidis P., Nessi E., Papadokostantakis S., Seferlis P., Galindo A., Jackson G., Adjiman C.S., Molecular Engineering of Sustainable Phase-change Solvents: From Digital Design to Scaling-up for CO₂ Capture, (2020) *Chemical Engineering Journal*, vol 420, Part 2, Article 127624 <https://doi.org/10.1016/j.cej.2020.127624>
65. Tsiptsias C., Leontiadis K., Tzimpilis E., Tsvintzelis I., Polypropylene nanocomposite fibers: A review of current trends and new developments, (2021) *Journal of Plastic Film & Sheeting*, 37(3), pp. 283-311, <https://doi.org/10.1177/8756087920972146>
64. Kontogeorgis G.M., Liang X., Arya A., (2020) Tsvintzelis I., [Equations of State in Three Centuries. Are we closer to arriving to a single model for all applications?](#) *Chemical Engineering Science: X*, 7, 100060.
63. Tsvintzelis, I., Ali, S., Kontogeorgis, G.M., (2020) [Modeling systems relevant to the biodiesel production using the CPA equation of state. Part 2. Systems with supercritical CO₂](#), *Fluid Phase Equilibria*, 504, 112337.
62. Leontiadis K, Tzimpilis E., Aslanidou D., Tsvintzelis I., (2019) [Solubility of CO₂ in 3-amino-1-propanol and in N-methyldiethanolamine aqueous solutions: Experimental investigation and correlation using the CPA equation of state](#), *Fluid Phase Equilibria*, 500, 112254.
61. Papadopoulos A.I., Tzirakis F., Tsvintzelis I., Seferlis P., (2019) Phase-Change Solvents and Processes for Postcombustion CO₂ Capture: A Detailed Review, *Industrial and Engineering Chemistry Research*, 58 (13), pp 5088–5111. DOI: [10.1021/acs.iecr.8b06279](https://doi.org/10.1021/acs.iecr.8b06279)
60. Tzirakis, F., Tsvintzelis, I., Papadopoulos, A.I., Seferlis, P. (2019) [Experimental measurement and assessment of equilibrium behaviour for phase change solvents used in CO₂ capture](#), *Chemical Engineering Science*, 199, pp. 20-27.
59. Tsvintzelis, I., Bjørner, M.G., Kontogeorgis, G.M. Recent advances with association models for practical applications, (2018) *Molecular Physics*, 116 (15-16), pp. 1921-1944. DOI: [10.1080/00268976.2018.1465604](https://doi.org/10.1080/00268976.2018.1465604)
58. Tsvintzelis, I., Kontogeorgis, G.M., Panayiotou, C., [Dimerization of Carboxylic Acids: An Equation of State Approach](#) (2017) *Journal of Physical Chemistry B*, 121 (9), pp. 2153-2163.
57. Baklavariadis A., Tsvintzelis I., Zuburtikudis I., Panayiotou C., Preparation of porous poly(L-lactic acid)-co-(trimethylene-carbonate) structures using supercritical CO₂ as antisolvent and as foaming agent (2017) *Polymer Engineering & Science*, 57 (9) 1005-1015, DOI: [10.1002/pen.24478](https://doi.org/10.1002/pen.24478).
56. Tsvintzelis, I., Ali, S., Kontogeorgis, G.M. Modeling systems relevant to the biodiesel production using the CPA equation of state, (2016) *Fluid Phase Equilibria*, 430, pp. 75-92. [\[Abstract and full text\]](#)
55. Tsvintzelis, I., Sanxaridou, G., Pavlidou, E., Panayiotou, C., Foaming of polymers with supercritical fluids: A thermodynamic investigation, (2016) *Journal of Supercritical Fluids*, 110, pp. 240-250. [\[Abstract and full text\]](#)
54. Dimopoulou M. , Tsvintzelis I., Ritzoulis C. , Panayiotou C., Thermodynamics of a food macromolecular assembly: the case of okra mucilage, *RSC Advances*, 2016,6, 20916-20925. [\[Abstract and full text\]](#)
53. Awan, J.A., Coquelet, C., Tsvintzelis, I., Kontogeorgis, G., Phase Equilibrium Measurements and

- Modeling of 1-Propanethiol +1-Butanethiol + CH₄ in Methane Ternary System at 303, 336, and 368 K and Pressure up to 9 MPa, (2016) *Journal of Chemical and Engineering Data*, 61 (1), pp. 41-44. [\[Abstract and full text\]](#)
52. Tsivintzelis I., Kontogeorgis G.M., Modelling phase equilibria for acid gas mixtures using the CPA equation of state. Part VI. Multicomponent mixtures with glycols relevant to oil and gas and to liquid or supercritical CO₂ transport applications, (2016) *Journal of Chemical Thermodynamics*, 93, pp. 305–319. [\[Abstract and full text\]](#)
 51. Liang X, Maribo-Mogensen B., Tsivintzelis I., Kontogeorgis G.M., A comment on water's structure using monomer fraction data and theories, (2016) *Fluid Phase Equilibria*, 407, pp. 2-6. [\[Abstract and full text\]](#)
 50. Panayiotou, C., Tsivintzelis, I., Aslanidou, D., Hatzimanikatis, V., Solvation quantities from a COSMO-RS equation of state, (2015) *Journal of Chemical Thermodynamics*, 90, pp. 294-309. [\[Abstract and full text\]](#)
 49. Tsivintzelis, I., Kontogeorgis, G.M. Modelling phase equilibria for acid gas mixtures using the CPA equation of state. Part V: Multicomponent mixtures containing CO₂ and alcohols, (2015) *Journal of Supercritical Fluids*, 104, pp 29-39. [\[Abstract and full text\]](#)
 48. Tsivintzelis, I., Ali, S., Kontogeorgis, G.M. Modeling phase equilibria for acid gas mixtures using the CPA equation of state. Part IV. Applications to mixtures of CO₂ with alkanes, (2015) *Fluid Phase Equilibria*, 397, pp. 1-17. [\[Abstract and full text\]](#)
 47. Liang X., Tsivintzelis I., Kontogeorgis G.M., Modeling Water Containing Systems with the Simplified PC-SAFT and CPA Equations of State, (2014) *Industrial and Engineering Chemistry Research*, 53 (37), pp 14493–14507. [\[Abstract and full text\]](#)
 46. Arya A., Maribo-Mogensen B., Tsivintzelis I., Kontogeorgis G.M., Process Design of Industrial Triethylene Glycol Processes Using the Cubic-Plus-Association (CPA) Equation of State, (2014), *Industrial and Engineering Chemistry Research*, 53 (29), pp 11766–11778 [\[Abstract and full text\]](#)
 45. Tsivintzelis I., Shahid A., Kontogeorgis G.M., Modeling phase equilibria for acid gas mixtures using the CPA equation of state. Part 3. Applications relevant to liquid or supercritical CO₂ transport, (2014) *Journal of Chemical & Engineering Data*, 59 (10), pp 2955–2972 [\[Abstract and full text\]](#)
 44. Tsivintzelis I., Kontogeorgis G.M., “On the predictive capabilities of CPA for applications in the chemical industry: Multicomponent mixtures containing methyl-methacrylate, dimethyl-ether or acetic acid”, (2014) *Chemical Engineering Research and Design*, 92 (12), pp 1947-1969. [\[Abstract and full text\]](#)
 43. Tsivintzelis I., Bøgh D., Karakatsani E., Kontogeorgis G., “The role of monomer fraction data in association theories—can we improve the performance for phase equilibrium calculations?” (2014) *Fluid Phase Equilibria*, 365, pp. 112-122. [\[Abstract and full text\]](#)
 42. Tsivintzelis I, Panayiotou C, “Designing Issues in Polymer Foaming with Supercritical Fluids”, (2013) *Macromolecular Symposia*, 331-332 (1), pp. 109-114. [\[Abstract and full text\]](#)
 41. Tsivintzelis, I., Musko, N.E., Baiker, A., Grunwaldt, J.-D., Kontogeorgis, G.M., “Experimental determination and modeling of the phase behavior for the direct synthesis of dimethyl carbonate from methanol and carbon dioxide”, (2013) *Journal of Supercritical Fluids*, 84, pp. 155-163. [\[Abstract and full text\]](#)
 40. Awan, J.A., Kontogeorgis, G.M., Tsivintzelis, I., Coquelet, C., “Vapor-liquid-liquid equilibrium measurements and modeling of ethanethiol + methane + water, 1-propanethiol + methane + water and 1-butanethiol + methane + water ternary systems at 303, 335, and 365 K and pressure up to 9 MPa”, (2013) *Industrial and Engineering Chemistry Research*, 52 (41), pp. 14698-14705. [\[Abstract and full text\]](#)
 39. Tsimpliaraki, A., Tsivintzelis, I., Marras, S.I., Zuburtikudis, I., Panayiotou, C., “Foaming of PCL/clay nanocomposites with supercritical CO₂ mixtures: The effect of nanocomposite fabrication route on the clay dispersion and the final porous structure”, (2013) *Journal of Supercritical Fluids*, 81, pp. 86-91. [\[Abstract and full text\]](#)
 38. Maia, F.M., Tsivintzelis, I., Rodriguez, O., Macedo, E.A., Kontogeorgis, G.M., “Equation of state modelling of systems with ionic liquids: Literature review and application with the Cubic Plus

- Association (CPA) model”, (2012) *Fluid Phase Equilibria*, 332, pp. 128-143. [\[Abstract and full text\]](#)
37. Tsivintzelis, I., Kontogeorgis, G.M., “Capabilities and limitations of an association theory for chemicals in liquid or supercritical solvents”, (2012) *Industrial and Engineering Chemistry Research*, 51 (41), pp. 13496-13517. [\[Abstract and full text\]](#)
 36. Awan, J.A., Tsivintzelis, I., Valtz, A., Coquelet, C., Kontogeorgis, G.M., “Vapor-liquid-liquid equilibrium measurements and modeling of the methanethiol + methane + water ternary system at 304, 334, and 364 K”, (2012) *Industrial and Engineering Chemistry Research*, 51 (35), pp. 11561-11564. [\[Abstract and full text\]](#)
 35. Afzal, W., Breil, M.P., Tsivintzelis, I., Mohammadi, A.H., Kontogeorgis, G.M., Richon, D., “Experimental study and phase equilibrium modeling of systems containing acid gas and glycol” (2012) *Fluid Phase Equilibria*, 318, pp. 40-50. [\[Abstract and full text\]](#)
 34. Awan, J.A., Tsivintzelis, I., Coquelet, C., Kontogeorgis, G.M., “Phase equilibria of three binary mixtures: Methanethiol + methane, methanethiol + nitrogen, and methanethiol + carbon dioxide”, (2012) *Journal of Chemical and Engineering Data*, 57 (3), pp. 896-901. [\[Abstract and full text\]](#)
 33. Beier, M.J., Grunwaldt, J.-D., Tsivintzelis, I., Jensen, A.D., Kontogeorgis, G.M., Baiker, A., “Selective oxidation of benzyl alcohol in dense CO₂: Insight by phase behavior modelling”, (2012) *Journal of Supercritical Fluids*, 63, pp. 199-207. [\[Abstract and full text\]](#)
 32. Díaz, I., Tsivintzelis, I., Panayiotou, C., “Predictions of high pressure phase equilibria of CO₂-containing mixtures with the NRCOSMO model”, (2012) *Fluid Phase Equilibria*, 313, pp. 203-210. [\[Abstract and full text\]](#)
 31. Tsivintzelis, I., Kontogeorgis, G.M., Michelsen, M.L., Stenby, E.H., “Modeling phase equilibria for acid gas mixtures using the CPA equation of state. Part II: Binary mixtures with CO₂”, (2011) *Fluid Phase Equilibria*, 306 (1), pp. 38-56. [\[Abstract and full text\]](#)
 30. Tsimliaraki, A., Tsivintzelis, I., Marras, S.I., Zuburtikudis, I., Panayiotou, C., “The effect of surface chemistry and nanoclay loading on the microcellular structure of porous poly(D,L lactic acid) nanocomposites”, (2011) *Journal of Supercritical Fluids*, 57 (3), pp. 278-287. [\[Abstract and full text\]](#)
 29. Kontogiannopoulos, K.N., Assimopoulou, A.N., Tsivintzelis, I., Panayiotou, C., Papageorgiou, V.P., “Electrospun fiber mats containing shikonin and derivatives with potential biomedical applications”, (2011) *International Journal of Pharmaceutics*, 409 (1-2), pp. 216-228. [\[Abstract and full text\]](#)
 28. Tsivintzelis, I., Beier, M.J., Grunwaldt, J.-D., Baiker, A., Kontogeorgis, G.M., “Experimental determination and modeling of the phase behavior for the selective oxidation of benzyl alcohol in supercritical CO₂”, (2011) *Fluid Phase Equilibria*, 302 (1-2), pp. 83-92. [\[Abstract and full text\]](#)
 27. Kontogeorgis, G.M., Tsivintzelis, I., Michelsen, M.L., Stenby, E.H., “Towards predictive association theories”, (2011) *Fluid Phase Equilibria*, 301 (2), pp. 244-256. [\[Abstract and full text\]](#)
 26. Breil, M.P., Tsivintzelis, I., Kontogeorgis, G.M., “Modeling of phase equilibria with CPA using the homomorph approach”, (2011) *Fluid Phase Equilibria*, 301 (1), pp. 1-12. [\[Abstract and full text\]](#)
 25. Awan, J.A., Tsivintzelis, I., Breil, M.P., Coquelet, C., Richon, D., Kontogeorgis, G.M., “Phase equilibria of mixtures containing organic sulfur species (OSS) and water/hydrocarbons: VLE measurements and modeling using the cubic-plus- association equation of state”, (2010) *Industrial and Engineering Chemistry Research*, 49 (24), pp. 12718-12725. [\[Abstract and full text\]](#)
 24. Tsivintzelis, I., Kontogeorgis, G.M., Michelsen, M.L., Stenby, E.H., “Modeling phase equilibria for acid gas mixtures using the CPA equation of state. I. Mixtures with H₂S”, (2010) *AIChE Journal*, 56 (11), pp. 2965-2982. [\[Abstract and full text\]](#)
 23. Kontogeorgis, G.M., Tsivintzelis, I., von Solms, N., Grenner, A., Bøgh, D., Frost, M., Knage-Rasmussen, A., Economou, I.G., “Use of monomer fraction data in the parametrization of association theories”, (2010) *Fluid Phase Equilibria*, 296 (2), pp. 219-229. [\[Abstract and full text\]](#)
 22. Tsiptsias, C., Sakellariou, K.G., Tsivintzelis, I., Papadopoulou, L., Panayiotou, C., “Preparation and characterization of cellulose acetate-Fe₂O₃ composite nanofibrous materials”, (2010) *Carbohydrate Polymers*, 81 (4), pp. 925-930. [\[Abstract and full text\]](#)
 21. Tsiptsias, C., Tsivintzelis, I., Panayiotou, C., “Equation-of-state modeling of mixtures with ionic liquids”, (2010) *Physical Chemistry Chemical Physics*, 12 (18), pp. 4843-4851. [\[Abstract and full text\]](#)

20. Tsivintzelis, I., Kontogeorgis, G.M., “Modeling the vapor-liquid equilibria of polymer-solvent mixtures: Systems with complex hydrogen bonding behaviour”, (2009) *Fluid Phase Equilibria*, 280 (1-2), pp. 100-109. [\[Abstract and full text\]](#)
19. Tsivintzelis, I., Economou, I.G., Kontogeorgis, G.M., “Modeling the phase behavior in mixtures of pharmaceuticals with liquid or supercritical solvents”, (2009) *Journal of Physical Chemistry B*, 113 (18), pp. 6446-6458. [\[Abstract and full text\]](#)
18. Tsivintzelis, I., Economou, I.G., Kontogeorgis, G.M., “Modeling the solid-liquid equilibrium in pharmaceutical-solvent mixtures: Systems with complex hydrogen bonding behaviour”, (2009) *AIChE Journal*, 55 (3), pp. 756-770. [\[Abstract and full text\]](#)
17. Tsiptsias, C., Tsivintzelis, I., Papadopoulou, L., Panayiotou, C., “A novel method for producing tissue engineering scaffolds from chitin, chitin-hydroxyapatite, and cellulose”, (2009) *Materials Science and Engineering C*, 29 (1), pp. 159-164. [\[Abstract and full text\]](#)
16. Tsivintzelis, I., Grenner, A., Economou, I.G., Kontogeorgis, G.M., “Evaluation of the nonrandom hydrogen bonding (NRHB) theory and the simplified perturbed-chain-statistical associating fluid theory (sPC-SAFT). 2. Liquid-liquid equilibria and prediction of monomer fraction in hydrogen bonding systems”, (2008) *Industrial and Engineering Chemistry Research*, 47 (15), pp. 5651-5659. ; Erratum: *Industrial and Engineering Chemistry Research*, 48 (16), p. 7860. [\[Abstract and full text\]](#), [\[Erratum\]](#)
15. Grenner, A., Tsivintzelis, I., Economou, I.G., Panayiotou, C., Kontogeorgis, G.M., “Evaluation of the nonrandom hydrogen bonding (NRHB) theory and the simplified perturbed-chain-statistical associating fluid theory (sPC-SAFT). 1. Vapor-liquid equilibria”, (2008) *Industrial and Engineering Chemistry Research*, 47 (15), pp. 5636-5650. [\[Abstract and full text\]](#)
14. Marras, S.I., Kladi, K.P., Tsivintzelis, I., Zuburtikudis, I., Panayiotou, C., “Biodegradable polymer nanocomposites: The role of nanoclays on the thermomechanical characteristics and the electrospun fibrous structure”, (2008) *Acta Biomaterialia*, 4 (3), pp. 756-765. [\[Abstract and full text\]](#)
13. Tsivintzelis, I., Marras, S.I., Zuburtikudis, I., Panayiotou, C., “Porous poly(l-lactic acid) nanocomposite scaffolds prepared by phase inversion using supercritical CO₂ as antisolvent”, (2007) *Polymer*, 48 (21), pp. 6311-6318. [\[Abstract and full text\]](#)
12. Tsivintzelis, I., Angelopoulou, A.G., Panayiotou, C., “Foaming of polymers with supercritical CO₂: An experimental and theoretical study”, (2007) *Polymer*, 48 (20), pp. 5928-5939. [\[Abstract and full text\]](#)
11. Tsivintzelis, I., Pavlidou, E., Panayiotou, C., “Biodegradable polymer foams prepared with supercritical CO₂-ethanol mixtures as blowing agents”, (2007) *Journal of Supercritical Fluids*, 42 (2), pp. 265-272. [\[Abstract and full text\]](#)
10. Panayiotou, C., Tsivintzelis, I., Economou, I.G., “Nonrandom hydrogen-bonding model of fluids and their mixtures. 2. Multicomponent mixtures”, (2007) *Industrial and Engineering Chemistry Research*, 46 (8), pp. 2628-2636. [\[Abstract and full text\]](#)
9. Tsivintzelis, I., Spyriouni, T., Economou, I.G., “Modeling of fluid phase equilibria with two thermodynamic theories: Non-random hydrogen bonding (NRHB) and statistical associating fluid theory (SAFT)”, (2007) *Fluid Phase Equilibria*, 253 (1), pp. 19-28. [\[Abstract and full text\]](#)
8. Tsivintzelis, I., Pavlidou, E., Panayiotou, C., “Porous scaffolds prepared by phase inversion using supercritical CO₂ as antisolvent. I. Poly(l-lactic acid)”, (2007) *Journal of Supercritical Fluids*, 40 (2), pp. 317-322. [\[Abstract and full text\]](#)
7. Tsivintzelis, I., Dritsas, G.S., Panayiotou, C., “An alternative approach to nonrandomness in solution thermodynamics”, (2006) *Industrial and Engineering Chemistry Research*, 45 (21), pp. 7264-7274. [\[Abstract and full text\]](#)
6. Missopolinou, D., Tsivintzelis, I., Panayiotou, C., “Excess enthalpies of binary mixtures of 2-ethoxyethanol with four hydrocarbons at 298.15, 308.15, and 318.15 K. An experimental and theoretical study”, (2006) *Fluid Phase Equilibria*, 245 (2), pp. 89-101. [\[Abstract and full text\]](#)
5. Stefanis, E., Tsivintzelis, I., Panayiotou, C., “The partial solubility parameters: An equation-of-state approach”, (2006) *Fluid Phase Equilibria*, 240 (2), pp. 144-154. [\[Abstract and full text\]](#)
4. Missopolinou, D., Tsivintzelis, I., Panayiotou, C., “Phase compositions and saturated densities for the binary system of carbon dioxide with 2-ethoxyethanol”, (2005) *Fluid Phase Equilibria*, 238 (2), pp. 204-

209. [\[Abstract and full text\]](#)
3. Stefanis, E., Constantinou, L., Tsvintzelis, I., Panayiotou, C., “New group-contribution method for predicting temperature-dependent properties of pure organic compounds”, (2005) *International Journal of Thermophysics*, 26 (5), pp. 1369-1388. [\[Abstract and full text\]](#)
 2. Panayiotou, C., Pantoula, M., Stefanis, E., Tsvintzelis, I., Economou, I.G., “Nonrandom hydrogen-bonding model of fluids and their Mixtures. 1. Pure fluids”, (2004) *Industrial and Engineering Chemistry Research*, 43 (20), pp. 6592-6606. [\[Abstract and full text\]](#)
 1. Tsvintzelis, I., Missopolinou, D., Kalogiannis, K., Panayiotou, C., “Phase compositions and saturated densities for the binary systems of carbon dioxide with ethanol and dichloromethane”, (2004) *Fluid Phase Equilibria*, 224 (1), pp. 89-96. [\[Abstract and full text\]](#)

Conference Proceedings:

95. F. Tzirakis, I. Tsvintzelis, A. Papadopoulos, P. Seferlis, Effect of Sulfate and Nitrate Anions on the CO₂ Absorption Performance of Aqueous Amine Solutions, 14th Panhellenic Scientific Conference of Chemical Engineering, 39-31 May 2024, Thessaloniki, Greece.
94. A. Moustaka, E. Tsepi, I. Tsvintzelis, Modeling mixtures of amines and alkanolamines with the cpa equation of state, 14th Panhellenic Scientific Conference of Chemical Engineering, 39-31 May 2024, Thessaloniki, Greece.
93. G. Liasi, C. Pliakou, K. Theodoridis, A. Arampatzis, E. Kyrilas, E. Kampasakali, I. Tsvintzelis, L. Tsalikis, P. Barmpalexis, D. Christofilos, A. Assimopoulou, Curcumin-loaded poly(ϵ -caprolactone) and poly(lactic acid) three-dimensional printed scaffolds for bone tissue engineering applications, Book of Abstracts, XXXVII Panhellenic Conference on Solid State Physics and Materials Science 17-20 September 2023, Thessaloniki, Greece
92. C. Spartali, I. Tsvintzelis, S. I. Marras, C. Tsiptsias, A. Georgantopoulos, F. Kalousi, A-M.G. Psarra, Electrospinning approach for encapsulation of silybin in PCL fibrous membranes, Proceedings of the 11th International Conference of the Hellenic Crystallographic Association (HeCrA), Municipal Art Gallery of Larissa - G.I. Katsigras Museum, Larissa, Greece, 20-22 October 2023.
91. L.A. Diaz, D.M. Montes de Oca, K. Maniam, F. Zhang, S. Paulb, I. Tsvintzelis, F. Tzirakis, P. Seferlis, A.I. Papadopoulos, Cathode Preparation Effect on the Conversion of Captured CO₂ to Ethylene, Proceedings of the 26th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, 8 – 11 October 2023, Thessaloniki, Greece.
90. F. Tzirakis, I.C. Chararas, A.I. Papadopoulos, P. Seferlis, I. Tsvintzelis, CO₂ Solubility in Aqueous Solutions used in CO₂ Capture and Utilization Applications: Systems of N-Methylcyclohexylamine with Strong or Weak Bases, Proceedings of the 26th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, 8 – 11 October 2023, Thessaloniki, Greece.
89. F. Tzirakis, A.I. Papadopoulos, P. Seferlis, I. Tsvintzelis, Effect of Sulfate Anions on the CO₂ Absorption Performance of Aqueous Amine Solutions, Proceedings of the 26th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, 8 – 11 October 2023, Thessaloniki, Greece.
88. G. Kontos, C. Tsiptsias, I. Tsvintzelis, Cellulose acetate-ionic liquid blends as membranes for efficient CO₂ recovery from flue gas, 14th Hellenic Polymer Society Conference, 22 -25 November 2023, Thessaloniki, Greece.
87. K. Leontiadis, C. Tsiptsias, S. Messaritakis, A. Terzaki, P. Xidas, K. Mystikos, Mechanical and thermal properties optimization of PP-carbon nanotube composite drawn fibers based on surface response analysis, 14th Hellenic Polymer Society Conference, 22 -25 November 2023, Thessaloniki, Greece.
86. G. Liasi, K. Theodoridis, A. Arampatzis, E. Kyrilas, E. Kampasakali, I. Tsvintzelis, L. Tsalikis, P. Barmpalexis, D. Christofilos, A. Assimopoulou, Ibuprofen-loaded 3D-printed polymeric scaffolds for hard tissue engineering, 14th Hellenic Polymer Society Conference, 22 -25 November 2023, Thessaloniki, Greece.
85. C. Tsiptsias, O. Karabinaki, D. Christofilos, E. Tzimpilis, I. Tsvintzelis, C. Panayiotou, Miscibility of microheterogeneous polymers: A case study of cellulose esters blends, 14th Hellenic Polymer Society Conference, 22 -25 November 2023, Thessaloniki, Greece.

84. I. Tsvintzelis, Foaming of polymers with supercritical fluids: A thermodynamic investigation, The 2nd International Conference on Physical Chemistry and Spectroscopy Sep. 27-29, **2023**, Department of Chemistry, University of Patras, Greece.
83. I. Tsvintzelis, P. Barmpalexis, E. Tzimpilis, A. Assimopoulou, Modelling the solubility of luteolin in liquid solvents with the NRHB equation of state model, 71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 2-5 July, **2023**, Trinity College Dublin, Ireland.
82. V. Manouras, K. Theodoridis, A. Arampatzis, E. Kyrilas, E. Kampasakali, I. Tsvintzelis, L. Tsalikis, C. Papanikolaou, C. Chatzidoukas, P. Barmpalexis, D. Christofilos, A. Assimopoulou, Poly(3-hydroxybutyrate)-based composite 3D printed scaffolds for tissue engineering applications, 71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 2-5 July, **2023**, Trinity College Dublin, Ireland.
81. G. Liasi, K. Theodoridis, A. Arampatzis, E. Kyrilas, E. Kampasakali, I. Tsvintzelis, L. Tsalikis, P. Barmpalexis, D. Christofilos, A. Assimopoulou, Advanced three-dimensional printed scaffolds loaded with ibuprofen for periodontitis management, 71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 2-5 July, **2023**, Trinity College Dublin, Ireland.
80. G. Liasi, C. Pliakou, K. Theodoridis, A. Arampatzis, E. Kyrilas, E. Kampasakali, I. Tsvintzelis, L. Tsalikis, P. Barmpalexis, D. Christofilos, A. Assimopoulou, Comparison of poly(ϵ -caprolactone) and poly(lactic acid) three-dimensional printed scaffolds loaded with curcumin for periodontitis treatment, 71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 2-5 July, **2023**, Trinity College Dublin, Ireland.
79. A. Arampatzis, E. Kampasakali, A. Kapourani, I. Tsvintzelis, L. Tsalikis, D. Christofilos, P. Barmpalexis, S. Papageorgiou, K. Argyriou, A. Tsouna, A. Assimopoulou, Enhancement of luteolin solubility in carriers and drug delivery systems and formulation of a toothpaste with luteolin for periodontal diseases, 71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 2-5 July, **2023**, Trinity College Dublin, Ireland.
78. F. Tzirakis, A. Papadopoulos, P. Seferlis, I. Tsvintzelis, Experimental Results and Modeling of Phase Change Solvents Used in CO₂ Capture, 25th Conference on Process Integration for Energy Saving and Pollution Reduction, PRES'22, 5-8 September **2022**, Hybrid Conference, Split and Bol (island of Brač), Croatia, plus online presentations and attendance.
77. G. Kontos, C. Tsiptsias, I. Tsvintzelis, Sorption of CO₂ in Composite Cellulose Acetate – Ionic Liquid Membranes, IUPAC International Conference on Green Chemistry, 5-9 September **2022**, Athens, Greece.
76. C. Spartali, C. Tsiptsias, F. Kalousi, A. Georgantopoulos, A.-M. Psarra, S. Marras, I. Tsvintzelis, Encapsulating silybin in PCL-based electrospun nanofibers, 70th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 28-31 August, **2022**, Thessaloniki, Greece.
75. Κ. Λεοντιάδης, Κ. Τσιόπτσιας, Σ. Μεσσαριτάκης, Α. Τερζάκη, Π. Ξυδάς, Κυριάκος Μυστικός, Ε. Τζιμπιλής, Ι. Τσιβιντζέλης, Βελτιστοποίηση της ανάπτυξης νανοσύνθετων τανυσμένων ιών πολυπροπυλενίου-βολλαστονίτη με ανάλυση επιφανειακής απόκρισης, 13ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 2-4 Ιουνίου **2022**.
74. Κ. Τσιόπτσιας, Κ. Λεοντιάδης, Σ. Μεσσαριτάκης, Α. Τερζάκη, Π. Ξυδάς, Κυριάκος Μυστικός, Ε. Τζιμπιλής, Ι. Τσιβιντζέλης, Ανάπτυξη και χαρακτηρισμός σύνθετων τανυσμένων ιών πολυπροπυλενίου, 13ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 2-4 Ιουνίου **2022**.
73. Ε. Τσέπη, Ι. Τσιβιντζέλης, Μοντελοποίηση ισορροπίας φάσεων δυαδικών μιγμάτων αμινών με υδρογονάνθρακες και αλκοόλες, 13ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 2-4 Ιουνίου **2022**.
72. Κ. Leontiadis, C. Tsiptsias, E. Tzimpilis, K. Karatasos, I. Tsvintzelis, Nanocomposite polypropylene drawn fibers with high tensile strength, 18th International Conference on Nanosciences & Nanotechnologies (NN21) 6-9 July **2021**, Thessaloniki, Greece.
71. C. Tsiptsias, K. Leontiadis, E. Tzimpilis, K. Karatasos, C. Panayiotou, I. Tsvintzelis, Nanocomposite Polypropylene Drawn Fibers with Various Inorganic Fillers, Proceedings of the 13th Hellenic Polymer Society International Conference, December **2021**, Virtual Conference.
70. K. Giannakoula, A. Arampatzis, K. Tsiptsias, K. Kontogiannopoulos, V. Papageorgiou, A. Assimopoulou, I. Tsvintzelis, Innovative electrospun PHB scaffolds as carriers for the wound healing

- agents Alkannins and Shikonins. *20th International Congress of International Society for Ethnopharmacology (ISE)*. 18 – 20 April **2021**, Virtual conference.
69. G. Kontos, E. Tzimpilis, I. Tsvintzelis, Effect of water content on the CO₂ solubility in Choline Chloride – 3-Amino-1-Propanol Aqueous Mixtures, 5th EuChemS Conference on Green and Sustainable Chemistry (5th EuGSC), 26-29 September **2021**, online conference
 68. F. Tzirakis, I. Tsvintzelis, A.I. Papadopoulos, P. Seferlis, Assessment of Phase Change Solvents used in CO₂ Capture, ESAT 2021- 31st European Symposium on Applied Thermodynamics, France, 4-7 July **2021**, online conference.
 67. Γ.Χ. Μήτρακα, Κ. Κοντογιαννόπουλος, Ι. Τσιβιντζέλης, Κ. Τσιόπτσιας, Α. Ζουμπούλης & Π. Κούγιας, Εύρεση βέλτιστων συνθηκών προεπεξεργασίας αστικής ιλύος με υπερκρίσιμη έκρηξη CO₂ με σκοπό τη μέγιστη ανάκτηση βιοαερίου. 12^ο ΠΑΝΕΛΛΗΝΙΟ ΣΥΝΕΔΡΙΟ ΕΓΜΕ 2021, 21-22 Οκτωβρίου **2021**, Διαδουκτιακό Συνέδριο.
 66. Κ. Λεοντιάδης, Κ. Τσιόπτσιας, Ε. Τζιμπιλής, Ι. Τσιβιντζέλης, Ανάπτυξη ναοσύνθετων ιών πολυπροπυλενίου-βολλαστονίτη, 1ο Διαδουκτιακό Συνέδριο Νέων Επιστημόνων «Ορυκτοί Πόροι-Περιβάλλον-Χημική Μηχανική», Κοζάνη, 26-28 Φεβρουαρίου **2021**, Διαδουκτιακό Συνέδριο.
 65. F. Tzirakis, I. Tsvintzelis, A.I. Papadopoulos, P. Seferlis, Experimental Measurement and Assessment of Equilibrium Behaviour for Phase Change Solvents used in CO₂ Capture, The 4th Sustainable Process Integration Laboratory Scientific Conference, Energy, Water, Emission & Waste in Industry and Cities, 18-20 November **2020** (Online).
 64. F. Tzirakis, I. Tsvintzelis, A.I. Papadopoulos, P. Seferlis, Experimental Measurement and Assessment of Equilibrium Behaviour for Phase Change Solvents used in CO₂ Capture, Thermodynamics 2019, 26-28 June, **2019**, Punta Umbria, Spain.
 63. A.S. Arampatzis, K.Theodoridis, E. Aggelidou, K. Kontogiannopoulos, I.Tsvintzelis, A. Kritis, V.P. Papageorgiou, A.N. Assimopoulou, “Novel tissue engineering scaffolds as wound dressings loaded with Alkannins/Shikonins as active ingredients”, 67th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, 1-5 September, **2019**, Innsbruck Austria.
 62. Ι. Μαρκόπουλος, Β. Καραντώνη, Ε. Τζιμπιλής, Ι. Τσιβιντζέλης, Επίδραση του Παράγοντα Αφρισμού στη Δημιουργία Ποραδών Δομών Ναοσύνθετων Πολυμερών με Υπερκρίσιμο CO₂, 12^ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, 29-31 Μαΐου **2019**.
 61. Γ. Κόντος, Κ. Λεοντιάδης, Ε. Τζιμπιλής, Ι. Τσιβιντζέλης, Πειραματικός Προσδιορισμός της Διαλυτότητας του CO₂ σε υδατικά Διαλύματα αλκανολαμινών, 12^ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, 29-31 Μαΐου **2019**.
 60. T. Zarogiannis, A.I. Papadopoulos, I. Tsvintzelis, P. Seferlis, Efficient Selection of Conventional and Phase-change CO₂ Capture Solvents based on Nominal and Off-design Process Operation, 2018 AIChE Annual Meeting, October 28 - November 2, **2018**, David L. Lawrence Convention Center, Pittsburgh, USA.
 59. Ε. Τζιμπιλής, Δ. Ασλανίδου, Γ. Κοντογεώργης, Ι. Τσιβιντζέλης, “Δέσμευση CO₂ με χρήση διαλυμάτων αλκανολαμινών: πειραματική και θεωρητική μελέτη”, Πρακτικά του 11^{ου} Πανελλήνιου Επιστημονικού Συνεδρίου Χημικής Μηχανικής, Μάιος 2017, Θεσσαλονίκη, Ελλάδα.
 58. Μ. Μπελιώκα, Κ. Ανδρουλάκη, Ι. Τσιβιντζέλης, Κ. Χρυσοπούλου, Κ. Καρατάσος, “Παρασκευή και χαρακτηρισμός ναοσύνθετων υδροπηκτών πολυ(βινυλικής αλκοόλης) – νατριούχου μοντοριλλονίτη”, Πρακτικά του 11^{ου} Πανελλήνιου Επιστημονικού Συνεδρίου Χημικής Μηχανικής, Μάιος **2017**, Θεσσαλονίκη, Ελλάδα.
 57. Γ.-Ρ. Φούκας, Ι. Τσιβιντζέλης, Κ. Παναγιώτου, “Εγκλεισμός κερκετίνης σε ιώδεις δομές βιοαποικοδομήσιμων πολυμερών”, Πρακτικά του 11^{ου} Πανελλήνιου Επιστημονικού Συνεδρίου Χημικής Μηχανικής, Μάιος **2017**, Θεσσαλονίκη, Ελλάδα.
 56. Ι. Tsvintzelis, C. Panagiotou, “Modeling the Thermal Properties of Mixtures with Hydrogen Bonding Fluids: Intra-Molecular Association and Dimerization of Organic Acids”, Πρακτικά του 7^{ου} Πανελλήνιου Συνεδρίου Θερμικής Ανάλυσης και Θερμιδομετρίας, Μάιος **2016**, Ιωάννινα - Ελλάδα.
 55. Ι. Tsvintzelis, G. Sanxaridou, C. Panagiotou, “Thermodynamic Investigation of the Foaming Process in Polymer – Supercritical Fluid Systems”, Proceedings of the 11th Hellenic Polymer Society International Conference, November **2016**, Heraklion Crete – Greece.
 54. Α. Baklavaridis, Ι. Tsvintzelis, Ι. Zuburtikudis, C. Panagiotou, “Preparation of Porous Poly(L-Lactic acid)-co-(Trimethylene-Carbonate) Structures using Supercritical CO₂ as Antisolvent and as Foaming Agent”, Proceedings of the 11th Hellenic Polymer Society International Conference, November **2016**,

- Heraklion Crete – Greece.
53. G. Panagiotou, I. Tsvintzelis, J. Filippou, “Development of Novel Wood-Plastic Composites from Recycled Materials”, Proceedings of the 11th Hellenic Polymer Society International Conference, November **2016**, Heraklion Crete – Greece.
 52. I. Tsvintzelis, D. Aslanidou, A. Tsali, Costas Panayiotou, Georgios K. Kontogeorgis, “CO₂ Capture and Transport: Thermodynamic Investigation of Relevant Fluid Mixtures”, Book of Abstracts, Thermodynamics 2015, Copenhagen, Denmark, 15-18 September, **2015**.
 51. I. Tsvintzelis, C. Panayiotou, “Foaming of Thermoplastics and Biopolymers with Supercritical Fluids: A Thermodynamic Investigation”, Book of Abstracts, Fifth International Conference on Biofoams (BIOFOAMS2015), Sorrento, Italy, 13-16 October, **2015**.
 50. Sagsaridou G., Tzimpilis E., Tsvintzelis I., Panayiotou C., Experimental and Theoretical Study of Polymer Foaming with Supercritical CO₂. Proceedings of the 10th Panhellenic Chemical Engineering Conference, Patra, Greece, **2015**.
 49. Pazianas I., Christaki T., Kotroni E., Asimopoulou A., Tsvintzelis I., Fibrous structures of biodegradable polymers for biomedical applications. Proceedings of the 10th Panhellenic Chemical Engineering Conference, Patra, Greece, **2015**.
 48. M. Dimopoulou, C. Ritzoulis, **I. Tsvintzelis**, C. Panayiotou, “Investigation of surface properties of okra hydrocolloid extract using inverse gas chromatography”, Conference Proceedings, Electronic Edition, 10th Hellenic Polymer Society Conference, (HPSC), Patras, Greece, 4-6 December, 2014.
 47. Tsvintzelis, I.; Scaltsogiannis A., Matzinos P., Panayiotou C., “Foaming of Polymers with Supercritical Fluids: From Thermoplastics to Biopolymers”, Conference Proceedings, Electronic Edition, 10th Hellenic Polymer Society Conference, (HPSC), Patras, Greece, 4-6 December, **2014**.
 46. Tsvintzelis, I.; Kontogeorgis, G.M., “Advanced equations of state for modeling the phase behavior of systems with supercritical, liquid or gaseous CO₂”, Conference Proceedings, Electronic Edition, 26th European Symposium on Applied Thermodynamics, (ESAT), Potsdam, Germany, 7-10 October, **2012**.
 45. Kontogeorgis, G.M.; Tsvintzelis, I.; Maribo-Mogensen, B., “Association theories – what is possible, what is difficult, what is new”, Abstract in Conference Proceedings, Electronic Edition, 26th European Symposium on Applied Thermodynamics, (ESAT), Potsdam, Germany, 7-10 October, **2012**.
 44. Maia, F.M.; Tsvintzelis, I.; Rodriques, O.; Macedo, E.A.; Kontogeorgis, G.M., “The CPA equation of state applied to systems with ionic liquids”, Abstract in Conference Proceedings, Electronic Edition, 26th European Symposium on Applied Thermodynamics, (ESAT), Potsdam, Germany, 7-10 October, **2012**.
 43. I. Tsvintzelis, M.L. Michelsen, E.H. Stenby, G.M. Kontogeorgis, “Application of CPA to Mixtures Containing Acid Gases” Book of Abstracts of the Industrial Use of Molecular Thermodynamics (InMoTher) 2012Conference, Lyon-France, 19-20 March **2012**.
 42. I. Tsvintzelis, M. L. Michelsen, E. H. Stenby, G. M. Kontogeorgis, “Modeling of Mixtures with Acid Gases using CPA”, Proceedings of the Thermodynamics 2011 conference, September **2011**, Athens, Greece, pp 428-430.
 41. I. Tsvintzelis, M. Beier, J.-D. Grunwaldt, G.M. Kontogeorgis, “Phase equilibria of mixtures related to the catalytic oxidation of alcohols in supercritical CO₂: An experimental and theoretical study”, Book of Abstracts of the 19th European conference on Thermophysical Properties (19th ECTP), August **2011**, Thessaloniki, Greece, pp. 244.
 40. G.M. Kontogeorgis, I. Tsvintzelis, M.L. Michelsen, E. H. Stenby, “Chemicals in Gas Processing (CHIGP): An industrial project for the thermodynamics of complex petroleum fluids and chemicals”, Book of Abstracts of the 19th European conference on Thermophysical Properties (19th ECTP), August **2011**, Thessaloniki, Greece, pp. 98.
 39. N.E. Musko, G.M. Kontogeorgis, J.-D. Grunwaldt, I. Tsvintzelis, “Phase Behaviour Modelling of Chemical Reactions in Dense and Supercritical Carbon Dioxide using the Cubic-Plus-Association Equation of State”, Proceedings of the 25th European Symposium of Applied Thermodynamics, June 24-27, **2011**, Saint Petersburg, Russia.
 38. I. Tsvintzelis, G.M. Kontogeorgis, M. Michelsen, E.H. Stenby “Modeling of Mixtures with Acid Gases using the CPA Equation of State”, Proceedings of the 25th European Symposium of Applied Thermodynamics, June 24-27, **2011**, Saint Petersburg, Russia

37. I. Tsivintzelis, G. M. Kontogeorgis, On the Complex Hydrogen Bonding Behavior of Organic Acids. Proceedings of the 8th Hellenic Conference of Chemical Engineering, May **2011**, Thessaloniki, Greece, Digital Edition.
36. Afzal, W., Breil, M.P., Tsivintzelis, I., Mohammadi, A.H., Kontogeorgis, G.M., Richon, D. Experimental study and phase equilibrium modeling of systems containing acid gas and glycol **2010** GPA Annual Convention Proceedings, 1, pp. 248-300.
35. I. Tsivintzelis, M.J. Beier, J.D. Grunwaldt, G.M. Kontogeorgis, "Modeling the phase behavior of mixtures used in oxidation of alcohols in supercritical CO₂", The 12th International Conference on Properties and Phase Equilibria for Product and Process Design, **2010**, Suzhou, China, Digital Edition.
34. A. Tsimliaraki, I. Tsivintzelis, S.I. Marras, I. Zuburtikudis, C. Panayiotou, "Preparation and foaming of nanocomposites in supercritical CO₂", Proceedings of the 12th European Meeting on Supercritical Fluids, **2010**, Graz, Austria, Digital Edition.
33. M.P. Breil, I. Tsivintzelis, G.M. Kontogeorgis, "Modelling the phase equilibria with CPA using the homomorph approach", Book of abstracts of the Molecular Modeling and Simulation for Industrial Applications: Physico-Chemical Properties and Processes, **2010**, Wurzburg, Germany.
32. I. Tsivintzelis, I.G. Economou, G.K. Kontogeorgis, "Modeling the Solubility of Pharmaceuticals in Liquid and Supercritical Pure and Mixed Solvents" Proceedings of the 24th European Symposium on Applied Thermodynamics (ESAT), **2009**, Santiago de Compostela, Spain, Cd-Rom Edition.
31. G. M. Kontogeorgis, I. Tsivintzelis, M.P. Breil, P. C. V. Tybjerg, E. H. Stenby, M.L. Michelsen, "Recent Developments of the CPA Equation of State for Associating Fluids", Proceedings of the 24th European Symposium on Applied Thermodynamics (ESAT), **2009**, Santiago de Compostela, Spain, Cd-Rom Edition.
30. G. M. Kontogeorgis, N. von Solms, I. Tsivintzelis, A. Grenner, D. Bøgh, M. Frost, A. Knage-Rasmussen, I. Economou, M.L. Michelsen, "The Role of Monomer Fraction Data in Association Theories", Proceedings of the VIII Iberoamerican Conference on Phase Equilibria and Fluid Properties for Process Design – Equifase **2009**, Praia da Rocha, Portugal, Cd-Rom Edition.
29. I. Tsivintzelis, I.G. Economou, G.K. Kontogeorgis, "Modeling the Phase Behavior in Mixtures of Pharmaceuticals with Liquid or Supercritical Solvents" Proceedings of the 7th Panhellenic Chemical Engineering Conference, Patra, Greece, **2009**, Cd-Rom Edition.
28. I. Tsivintzelis, G.M. Kontogeorgis, "Modeling the complex hydrogen bonding behavior of mixtures with glycols", 10th Joint European Thermodynamics Conference, **2009**, Copenhagen, Denmark, Digital edition.
27. A. Tsimliaraki, I. Tsivintzelis, S.I. Marras, I. Zuburtikudis, C. Panayiotou, "Organomodification of nanoclays and its role on the porous structure of polymer nanocomposites produced by supercritical CO₂", in Abstract Book of the XXV Panhellenic Conference on Solid State Physics and Materials Science, Thessaloniki, **2009**, pp 312.
26. A. Tsimliaraki, I. Tsivintzelis, I. Zuburtikudis, S.I. Marras, L. Papadopoulou, C. Panayiotou, "Porous microcellular nanocomposites of poly(DL-lactic acid)/organically modified montmorillonite – The role of alkylammonium type and its cation concentration during the filler's modification, in Proceedings of the 6th Workshop on Nanosciences and Nanotechnologies, Thessaloniki, Greece, **2009**, pp. 216.
25. I. Tsivintzelis, A. Grenner, I. Economou, C. Panayiotou, G. Kontogeorgis, "Evaluation of the Non-Random Hydrogen Bonding (NRHB) Theory and the simplified Perturbed-Chain-Statistical Associating Fluid Theory (sPC-SAFT)", Proceedings of the 23rd European Symposium on Applied Thermodynamics (ESAT), **2008**, Cannes, France, Cd-Rom Edition
24. I. Tsivintzelis, S. I. Marras, I. Zuburtikudis, C. Panayiotou, "Microcellular nanocomposite polymers prepared with supercritical CO₂: The role of nanoclays on porous structure", Proceedings of the 7th Hellenic Polymer Conference, Ioannina, **2008**, Digital -Edition.
23. I.G. Economou, E.K. Karakatsani, A.Grenner, I. Tsivintzelis, C. Panayiotou. G.M. Kontogeorgis, "Evaluation of Statistical Mechanics-Based Equations of State for Complex Fluid Mixtures", European Congress of Chemical Engineering (ECCE-6), Copenhagen, 16-20 September **2007** vol2, pp. 73-74.
22. I. Tsivintzelis, C. Panayiotou, "Foaming of Polymers with Supercritical CO₂: An Experimental and Theoretical Study", 11th International Conference on Properties and Phase Equilibria for Product and

Process Design, Hersonissos, Crete, Greece, **2007**, CD-Rom Edition.

21. I. Tsvintzelis, I. Economou, C. Panayiotou, "Statistical Thermodynamics of Strongly Non Ideal Mixtures: Hydrogen Bonding Systems and Polymer Solutions", Proceedings of the 6th Panhellenic Chemical Engineering Conference, Athens, Greece, **2007**, pp. 945-948.
20. I. Tsvintzelis, C. Tsiptsias, S.I. Marras, J. Fillipou, C. Panayiotou, "Electrospun Fibrous structures from cellulose and its derivatives", Proceedings of the 6th Panhellenic Chemical Engineering Conference, Athens, Greece, **2007**, pp. 381-384.
19. C. Tsiptsias, M. Papamichail, C. Mihailof, I. Tsvintzelis, M. Bridakis, C. Panayiotou, "Encapsulation of Piroxicam in fibrous scaffolds poly(hydroxyl butyrate)", Proceedings of the 6th Panhellenic Chemical Engineering Conference, Athens, Greece, **2007**, pp. 453-456.
18. C. Tsiptsias, I. Tsvintzelis, S.I. Marras, Ch. Ritzoulis, C. Panayiotou, "Chitin Porous Hydrogels: New production method", Proceedings of the 6th Panhellenic Chemical Engineering Conference, Athens, Greece, **2007**, pp. 457-460.
17. I. Tsvintzelis, M. Bridakis, J.L. Philippou, C. Panayiotou, "Electrospinning of Cellulose and Cellulose Acetate Nanofibers", in Proceedings of the 4th Workshop on Nanosciences and Nanotechnologies, Thessaloniki, Greece, **2007**, pp. 103.
16. I. Tsvintzelis, C. Panayiotou, "Production of Microcellular Foams with Supercritical CO₂: An Experimental and Theoretical Study", Proceedings of 6th Hellenic Conference on Polymers, Patras, Greece, **2006**, pp.76-78.
15. I. Tsvintzelis, S.I. Marras, I. Zoumpourtikoudis, C. Panayiotou, "Preparation of Porous Structures of Nanocomposite Biodegradable Polymeric Materials, ", in Book of Abstracts of XXII Panhellenic Solid State Physics and Material Science Conference, Patra, Greece, **2006**, pp. 181.
14. K. Kladi, I. Tsvintzelis, J.L. Philippou, C. Panayiotou, "Electrospinning of Biodegradable Polymer nanofibers", in Proceedings of the 3rd Workshop on Nanosciences and Nanotechnologies, Thessaloniki, Greece, **2006**, pp.77
13. S. Marras, I. Tsvintzelis, E. Pavlidou, I. Zuburtikudis, C. Panayiotou, "Morphology and Thermal Behaviour of Poly(L-Lactic Acid) Nanocomposite Scaffolds", in Proceedings of the 3rd Workshop on Nanosciences and Nanotechnologies, Thessaloniki, Greece, **2006**, pp.98
12. I. Tsvintzelis, T. Spyriouni, I. Economou, "Modeling of Phase Equilibria with Non Random Hydrogen Bonding (NRHB) and Statistical Associating Fluid Theory (SAFT) Theories", Proceedings of the 22nd European Symposium on Applied Thermodynamics (ESAT 2006), Elsinore - Denmark, **2006**, pp.244-247
11. K.P. Kladi, S. I. Marras, I. Tsvintzelis, C. Panayiotou "Fibrous Scaffolds by Electrospinning of Poly(ϵ -caprolactone)/Layered Silicate Nanocomposites", Proceedings of the 3rd International Symposium on Nanomanufacturing (ISNM 2005), Limassol - Cyprus, **2005**, CD-Rom edition.
10. I. Tsvintzelis, S.I. Marras, I. Zuburtikudis, E. Pavlidou, C. Panayiotou "Morphology and Thermal Characteristics of Poly(L-Lactic Acid)/Layered Silicate Nanocomposite Scaffolds for Tissue Engineering", Proceedings of the 7th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), Ed. M. Lalia-Kantouri, Thessaloniki, **2005**, pp.103-108
9. G.S. Dritsas, I. Tsvintzelis, C. Panayiotou "Study of Retrograde Vitrification for Polymers with Inverse Supercritical Chromatography", Proceedings of the 7th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), Ed. M. Lalia-Kantouri, Thessaloniki, **2005**, pp.123-128
8. D. Missopolinou, I. Tsvintzelis, C. Panayiotou "Thermodynamic Properties of the Binary Mixtures of 2-Ethoxyethanol with Hydrocarbons and Carbon Dioxide", Proceedings of the 7th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), Ed. M. Lalia-Kantouri, Thessaloniki, **2005**, pp. 247-252
7. I. Tsvintzelis, S.I. Marras, I. A.G. Agelopoulou, E. Pavlidou, C. Panayiotou, "Preparation of Microporous Polymer Nanocomposites using Supercritical CO₂", Proceedings of the 5th Panhellenic Chemical Engineering Conference, Thessaloniki, Greece, **2005**, pp. 405-408
6. I. Tsvintzelis, T. Spyriouni, I.G. Economou "Modelling Phase Equilibrium with two Thermodynamic Theories: Non Random Hydrogen Bonding (NRHB) and Statistical Associating Fluid Theory (SAFT)", Proceedings of the 5th Panhellenic Chemical Engineering Conference, Thessaloniki, Greece, **2005**, pp.

5. I. Tsivintzelis, S.I. Marras, I. Zuburtikudis, E. Pavlidou, C. Panayiotou "Porous Scaffolds for Biomedical Applications" Proceedings of 2nd Panhellenic Plastics Conference, Athens, Greece, **2005**, CD-Rom edition.
4. I. Tsivintzelis, G.S. Dritsas, C. Panayiotou "Study of Retrograde Vitrification of Polymers with Inverse Supercritical Chromatography" in Book of Abstracts of XX Panhellenic Solid State Physics and Material Science Conference, Ioannina, Greece, 2004, pp. 16
3. I. Tsivintzelis, S.I. Marras, I. A.G. Agelopoulou, E. Pavlidou, C. Panayiotou, "Preparation of Microcellular Polymer Nanocomposites by CO₂", in Book of Abstracts of XX Panhellenic Solid State Physics and Material Science Conference, Ioannina, Greece, **2004**, pp. 19.
2. M. Pantula, I. Tsivintzelis, C. Panayiotou "Polymer Interactions with Supercritical Fluids: A Unified Approach", Proceedings of XIX Panhellenic Solid State Physics and Material Science Conference, Thessaloniki, Greece, **2003**, pp. 459-462
1. I. Tsivintzelis, A.N. Christodoulakis, C. Lambrou, D. Missopolinou-Tatala, C. Panayiotou "Olive and Olive Husk Oil Extraction with Supercritical CO₂" Proceedings of the 3rd Panhellenic Chemical Engineering Conference, Athens, Greece, **2001**, pp. 781-784.