



CURRICULUM VITAE
Dr. Evangelos P. Favvas

PERSONAL INFORMATION

First name / Surname Evangelos P. Favvas
E-mail e.favvas@inn.demokritos.gr
Nationality Hellenic
Date of birth 18 January 1978
Gender Male
Work Address Institute of Nanoscience and Nanotechnology (INN), NCSR "Demokritos", Aghia Paraskevi, Attica, P.C. 153 41, Greece
Telephone (Office) +30 210 650 3658
Telephone (Lab) +30 210 650 3981
Mobile +30 693 230 2922

WORK EXPERIENCE

Dates December 2024 – today
Occupation or position held Research Director
Dates February 2017 – December 2024
Occupation or position held Senior Researcher
Main activities and responsibilities Preparation, characterization and evaluation performance of membranes and adsorbate materials for energy and environmental applications. Supervising of *M.Sc.* and *Ph.D.* students, writing and participation of research proposals and projects respectively
Name and address of employer Membranes and Materials for Environmental Separations Laboratory, Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Aghia Paraskevi, Attica, Greece
Type of business or sector Research and Development
Dates May 2002 - February 2017
Occupation or position held Research Collaborator (2002 – 2007) & Research Officer (2007 – 2017)
Main activities and responsibilities Development of polymeric and inorganic membranes for gas separation applications – characterization of porous materials
Name and address of employer Membranes and Materials for Environmental Separations Laboratory, Institute of Physical Chemistry, NCSR "Demokritos", Aghia Paraskevi, Attica, P.C. 153 41, Greece
Type of business or sector Research and Development
Dates 2012 – today
Occupation or position held Visitor Researcher
Main activities and responsibilities Study of fluid condensation phenomena into porous media using *in situ* adsorption with small angle x-ray scattering experiment – characterization of nanoporous materials using WAXS/SAXS and microscopy techniques (SEM, AFM)
Name and address of employer Hephaestus Lab., Dpt of Chemistry, Democritus University of Thrace, Kavala, P.C. 654 04, Greece
Type of business or sector Research and Development
Dates 2022 - today
Occupation or position held Teaching in MSc program
Main activities and responsibilities Teaching of courses on "Nanochemistry, Advance characterization techniques" in MSc program "Cosmetic Chemistry", Department of Chemistry, Democritus University of Thrace
Name and address of employer Department of Chemistry, School of Science, Democritus University of Thrace, Kavala P.C. 654 04, Greece
Type of business or sector Teaching

EDUCATION

University	National and Kapodistrian University of Athens, Department of Chemistry
Dates	22 November 2004 - 03 May 2010
Title of qualification awarded	Ph.D. Degree
Dissertation	Gas Separation Study on Polymeric and Carbon Hollow Fibers Membranes (DOI: 10.12681/eadd/25350)
Grade	«Excellent»
International Standard Classification of Education (ISCED)	8
University	National and Kapodistrian University of Athens, Department of Chemistry
Dates	October 2002 - October 2004
Title of qualification awarded	M.Phil. Degree (2 years), Postgraduate Programme «Polymer Science and Applications»
Dissertation	Study of permeance – selectivity properties of polymeric and carbon polyimide based hollow fiber membranes
Grade	«Excellent – 9.44»
International Standard Classification of Education (ISCED)	7
University	Kavala Institute of Technology, Department of Petroleum Engineering
Dates	March 1998 – May 2002
Title of qualification awarded	Degree of Petroleum Engineer
Grade	«Very Good – 8.00»
International Standard Classification of Education (ISCED)	6

RESEARCH ACTIVITIES – MEMBERSHIPS

- **Research activities:** Porous materials, membranes (*polymeric and inorganic*) and nanocomposites materials for environmental & energy applications, gas separations and storage, x-ray and neutron scattering, adsorption, fuel technology.
- Participation in 39 International and National research projects (FP6, FP7, Horizon 2020, Horizon Europe, Thalís, Marie–Curie, Archimedes, Interreg, NRC etc)
- Coordinator of 5 research projects
- Supervising and co-supervising of 20 BSc, Master and PhD students
- Review Editor in Advanced Clean Fuel Technologies, Frontiers
- Topic Editor, Nanomaterials Journal (02/2019 – today, I.F. 4.034)
- Member of the editorial board of the Journal of Membrane and Separation Technology
- Member of the editorial board of the Int. Journal of Membrane Science and Technology
- Member of the editorial board of the Journal of Engineering Science and Technology Review
- Guest Editor of Special Issue "*Membranes for Carbon Dioxide Separation/Capture applications*", Journal of Membrane and Separation Technology
- Guest Editor of Special Issue "*Materials and membranes for hydrogen separation/purification processes*" International Journal of Hydrogen Energy (April 2021).
- Guest Editor of Special Issue "*Membranes for Carbon Dioxide Separation/Capture applications*" J. Membr. Separ. Technol. (June 2016).
- Guest Editor of Special Issue "*Membrane technology for CO₂ containing-gaseous streams treatment and valorization and for environmental protection*" Int. J. Greenh. Gas Control. (2022).
- Guest Editor of Special Issue "*Hybrid Porous Nanomaterials for Energy and Environment*" Nanomaterials (2022).
- Referee in several international scientific journals (*J. Membr. Separ. Techn., J. Engin. Sci. Tech. Review, Applied Water Science, Fibers and Polymers, Sci. Iranica, J. Appl. Polym. Sci., Separ. Sci. & Technology, Separ. Purif. Techn., J. Membr. Sci., Chem. Engin. J., Langmuir, etc*)
- Member of faculty staff election committees at Universities and Research Centers (2017–present)
- Member of the Society of Petroleum Engineers (**SPE**)

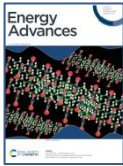
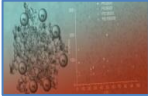
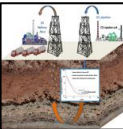
FURTHER QUALIFICATIONS

Extensive laboratory experience in:

1. Gravimetric Analysis (IGA-Rubotherm) – Differential Scanning Calorimetry (DSC) – Thermal Gravimetric Analysis (TGA), X-ray diffraction (XRD)

2. Experimental experience in small/wide angle x-ray scattering systems (WAXS/SAXS) and neutron centers (1. Laboratoire Léon Brillouin, Bât 563 CEA Saclay, France & 2. Instrument V1 - Helmholtz-Zentrum Berlin für Materialien und Energie (HZB), Germany)
3. Scanning electron microscopy (FE-JEOL-JSM-7401F & JEOL-JSM-6390LV)
4. Characterization and evaluation of polymeric and inorganic membranes using:
 - I. Flow systems/Selectivity apparatus
 - II. Adsorption techniques (low & high pressures)
 - III. Permeability apparatus (for liquids and gases at pressures up to ~70 bar)

AWARDS – DISTINCTIONS

- ✓ My name appears in **Stanford University's 2024 & 2025 lists** of the top 2% most cited scientists worldwide
- ✓ 04/10/2016: Award with a cash prize of €5,000 from the E.I.H.T.-E.M.Th. (Eastern Macedonia and Thrace Institute of Technology) for the idea titled "Agro-NB", as part of the "Fellowships" project of E.I.H.T.-E.M.Th., with the exclusive support of the Stavros Niarchos Foundation.
- ✓ Front Cover of the J. of Colloid and Interface Science, **Vol. 564**, 2020 (E.D. Michailidi, G. Bomis, A. Varoutoglou, G.Z. Kyzas, G. Mitrikas, A.Ch. Mitropoulos, E.K. Efthimiadou, E.P. Favvas, "Bulk nanobubbles: Production and investigation of their formation/stability mechanism", J. Coll. Interface Sci., 564, 2020, 371–380.) 
- ✓ Front Cover of the Energy Advances, **Vol. 2**, 2022 (K.L. Stefanopoulos, E.P. Favvas, G.N. Karanikolos, W. Alameri, V. Kelessidis, T. Youngs, D. Bowron, "Monitoring the CO₂ Enhanced Oil Recovery Process at the Nanoscale: An In-Situ Neutron Scattering Study", Energy Advances, 2, 2022, 67–75.) 
- ✓ Front Cover of the Textiles, **Vol. 2**, 2022 (M. Arkas*, E.P. Favvas, K. Giannakopoulos, N. Mouti, I. Karakasiliotis, M. Vardavoulis, M. Arvanitopoulou, A. Athanasiou, G. Kythreoti, S.M. Soto, "Hydrophilic Antimicrobial Coatings for Medical Leathers from Silica-Dendritic Polymer-Silver Nanoparticle Composite Xero-gels", Textiles, 2, 2022, 464–485.) 
- ✓ 04 April 2022, Highlighted news letter with title "Using Neutrons to observe the CO₂ Enhanced Oil Recovery (CO₂-EOR) process in real time" about our work in Energy Advances, 2, 2022, 67–75 (<https://www.isis.stfc.ac.uk/Pages/SH22-Carbon-Capture.aspx>) 
- ✓ Front Cover of the Separations, **Vol. 12**, Issue 1, 2025 (D.S. Karousos, G.V. Theodorakopoulos, F. Chiesa, S. Barbe, M. Bouroushian, E.P. Favvas, "CO₂/CH₄ and CO₂/CO Selective Pebax-1657 Based Composite Hollow Fiber Membranes Prepared by a Novel Dip-Coating Technique", Separations 13 (2025) 3) 

PUBLICATIONS IN PEER REVIEWED JOURNALS

(Scopus ID: 16024473400)

(ORCID ID: <https://orcid.org/0000-0003-3369-8364>)

Submitted (under review)

Five manuscripts are under review (September 2025)

Published

1. Athanasios T. Varoutoglou, Konstantinos N. Maroulas, Margaritis Kostoglou, Evangelos P. Favvas, Dimitra A. Lambropoulou, Athanasios C. Mitropoulos, George Z. Kyzas*, "Nanobubbles in a dye degradation setup", Langmuir 41, **2025**, 21576–21590.
2. T. Bompotis, E. Karastergiou, K. Giannakopoulos, E.P. Favvas, M. Arvanitopoulou, K. Arvanitopoulos, L. Arvanitopoulos, G. Kytherioti, M. Vardavoulis, D. Giannakoudakis, L. Castellsagués, S.M. Soto González, M. Arkas*, "Solvent Effect on Antimicrobial Hydrophilic Xerogel Coating of Medicinal Leathers in Simulated Industrial Finishing Process", ChemPlusChem, **2025**, 1-13.
3. D.S. Karousos, G.V. Theodorakopoulos*, F. Chiesa, S. Barbe, M. Bouroushian, E.P. Favvas*, "CO₂/CH₄ and CO₂/CO Selective Pebax-1657 Based Composite Hollow Fiber Membranes Prepared by a Novel Dip-Coating Technique", Separations 13 (2025) 3.

4. Atyeh Rahmanzadeh, Nasser AL-Hamdani, Evangelos P. Favvas, Giorgio De Luca*, "Insights into Cis-Amide-Modified Carbon Nanotubes for Selective Purification of CH₄ and H₂ from Gas Mixtures: A Comparative DFT Study", *Materials* 17 (2024) 3588.
5. George V. Theodorakopoulos*, Dionysios S. Karousos, Evangelos P. Favvas, Anastasios Gotzias*, "Formation of polyimide membranes via non-solvent induced phase separation from molecular dynamics simulations", *ChemPlusChem* (2024) e202300766 (1-9).
6. Oluwatobi Agbadaola, Danial Qadir, Faizan Ahmad*, Humbul Suleman, Dionysios S. Karousos, Evangelos P. Favvas, "A review of hydrogen technologies, prospects and policies", *Chemical Papers* 78 (2024) 4057–4073.
7. Dionysios S. Karousos*, Francesco Chiesa, George V. Theodorakopoulos, Mirtat Bouroushian, Evangelos P. Favvas, "Rapid hollow fiber-coating device for thin film composite membrane preparation", *Rev. Sci. Instrum.*, 95 (2024) 033906.
8. Adele Brunetti*, Danlin Chen, Elisa Avruscio, Linfeng Lei*, Dionysis S. Karousos, Giuseppe Barbieri, Evangelos P. Favvas, Xuezhong He*, "Carbon membranes for syngas purification: separation performance and process simulation", *ACS Sustain. Chem. Eng.*, 12 (2024) 3344–3354.
9. G.V. Theodorakopoulos*, D.S. Karousos, J. Benra, S. Forero, R. Hammerstein, A.A. Sapalidis, T. Schubert, E.P. Favvas, "Well established carbon nanomaterials: modification, characterization and dispersion study at different solvents", *J. Materials Science*, 59 (2024) 3339–3362.
10. Dionysios S. Karousos*, Danial Qadir, Andreas A. Sapalidis, Faizan Ahmad, Evangelos P. Favvas, "Polymeric, metallic and carbon membranes for hydrogen separation: a review", *Gas Science and Engineering*, 120 (2023) 205167 (**One of the five October - December 2023 Editors' Choice Articles**).
11. Eirini Tziviloglou, Zoi S. Metaxa, Georgios Maistros, Stavros Kourkoulis, Dionysios S. Karousos, Evangelos P. Favvas, Nikolaos D. Alexopoulos*, "Electrochemical impedance as an assessment tool for the investigation of the physical and mechanical properties of graphene-based cementitious nanocomposites", *Nanomaterials*, 13, 2023, 2652.
12. M. Arkas*, T. Bompotis, K. Giannakopoulos, E.P. Favvas, M. Arvanitopoulou, K. Arvanitopoulos, L. Arvanitopoulos, G. Kythreoti, S.M. Soto González, "Hybrid Xerogel and Titania/Xerogel Dispersions Reinforcing 2 Hydrophilicity and Antimicrobial Resistance of Leathers", *Gels* 9, 2023, 685.
13. George V. Theodorakopoulos*, Dionysios S. Karousos, Charitomeni M. Veziri, Evangelos P. Kouvelos, Andreas A. Sapalidis, Evangelos P. Favvas, "Green chemistry -based fabrication of hollow fiber and flat sheet polyimide membranes for CO₂/CH₄ separation", *J. Membr. Sci. Letters* 3, 2023, 100057.
14. M. Arkas*, K. Giannakopoulos, E.P. Favvas, S. Papageorgiou, G.V. Theodorakopoulos, A. Giannoulatou, M. Vardavoulas, D.A. Giannakoudakis, E. Georgiou, I. Pashalidis, "Comparative Study of the U(VI) Adsorption by Hybrid Silica-Hyperbranched Poly(ethylene imine) Nanoparticles and Xero-gels", *Nanomaterials* 13, 2023, 1794.
15. Athanasios N. Vasileiou, George V. Theodorakopoulos*, Dionysios S. Karousos, Mirtat Bouroushian, Andreas A. Sapalidis, Evangelos P. Favvas, "Nanocarbon-based mixed matrix Pebax-1657 flat sheet membranes for CO₂/CH₄ separation", *Membranes* 13, 2023, 470.
16. Danlin Chen, Feng Yang, Dionysis S. Karousos, Linfeng Lei, Raphael Semiat, Evangelos P. Favvas, Xuezhong He* "Process Parametric Testing and Simulation of Carbon Membranes for H₂ Recovery from Natural Gas Pipeline Network", *Separ. Purif. Technol.*, 307, 2023, 122842.
17. Anastasios Foundas, Ramonna I. Kosheleva; Evangelos P. Favvas, Margaritis Kostoglou, Athanasios C. Mitropoulos, George Z. Kyzas*, *Fundamentals and Applications of Nanobubbles: A Review*, *Chem. Eng. Res. Des.*, 189, 2023, 64–86.
18. Dionysis S. Karousos* and Evangelos P. Favvas, "Membranes Targeting Industrial O₂ Production from Air – A Short Review", *Int. J. Membr. Sci. Technol.*, 9, 2022, 14 – 24.
19. M. Arkas*, E.P. Favvas, K. Giannakopoulos, N. Mouti, I. Karakasiliotis, M. Vardavoulas, M. Arvanitopoulou, A. Athanasiou, G. Kythreoti, S.M. Soto, "Hydrophilic Antimicrobial Coatings for Medical Leathers from Silica-Dendritic Polymer-Silver Nanoparticle Composite Xero-gels", *Textiles*, 2, 2022, 464–485 (**On the journal cover**).
20. Anastasia I. Patrinoi, Eirini Tziviloglou, Athanasios Varoutoglou, Evangelos P. Favvas, Athanasios C. Mitropoulos, George Z. Kyzas, Zoi S. Metaxa*, "Cement composites with graphene nanoplatelets and recycled milled carbon fibers dispersed in air-nanobubble water", *Nanomaterials*, 12, 2022, 2786.
21. Adele Brunetti*, Linfeng Lei, Elisa Avruscio, Dionysis S. Karousos*, Arne Lindbråthen, Evangelos P. Kouvelos, Xuezhong He*, Evangelos P. Favvas, Barbieri Giuseppe, "Long-term performance of highly selective carbon hollow fiber membranes in presence of H₂S and humidity for biogas upgrading", *Chem. Eng. J.*, 448, 2022, 137615.
22. M. Pachoulis, A.A. Sapalidis, E.P. Kouvelos, A. Gotzias, G.K. Kyzas*, E.P. Favvas, "Study of Cu²⁺ and dyes removal by palygorskite in batch and continuous flow processes", *Desalination*

- and Water Treatment, 255, **2022**, 101–109.
23. Zoi S. Metaxa*, Spyridoula Boutsoukou, Maria Amenta, Evangelos P. Favvas, Stavros K. Kourkoulis, Nikolaos D. Alexopoulos, "Dispersion of multi-walled carbon nanotubes into white cement mortars: the effect of concentration and surfactants", *Nanomaterials*, 12, **2022**, 1031.
 24. K.L. Stefanopoulos*, E.P. Favvas, G.N. Karanikolos, W. Alameri, V. Kelessidis, T. Youngs, D. Bowron, "Monitoring the CO₂ Enhanced Oil Recovery Process at the Nanoscale: An In-Situ Neutron Scattering Study", *Energy Advances*, (**Advance Article**) 2, **2022**, 67–75 (**On the journal cover**).
 25. E.G. Deze*, M.D. Bareka, D.S. Karousos, A.A. Sapalidis, E.P. Favvas*, "Mesoporous silica based copper catalytic materials for potential deNO_x application: synthesis and characterization", *Materials Today: Proceedings*, 54, **2022**, 1–6.
 26. G.V. Theodorakopoulos*, D.S. Karousos*, K.G. Mansouris, A.A. Sapalidis, E.P. Kouvelos, E.P. Favvas*, "Graphene nanoplatelets based polyimide/Pebax dual-layer mixed matrix hollow fiber membranes for CO₂/CH₄ and He/N₂ separations", *Int. J. Greenh. Gas Control*, 114, **2022**, 103588.
 27. Ruben Hammerstein, Tim Schubert, Gerd Braun, Tobias Wolf, Stéphan Barbe, Antje Quade and Evangelos P. Favvas*, "The Optimization of Dispersion and Application Techniques for Nanocarbon-Doped Mixed Matrix Gas Separation Membranes", *Membranes*, 12, **2022**, 87.
 28. Vasanth Kumar Kannuchamy*, Kiran Kumar Ramisetty, Renuka Devi Krishnaraj, Rama Krishna Gamidi, Claire Heffernan, Andrew Stewart, Jian Guo, Srinivas Gadipelli, Dan Brett, Evangelos P. Favvas, Ake Rasmuson, "Pure curcumin spherulites from impure solution via non-classical crystallization", *ACS Omega* 6,37, **2021**, 23884–23900.
 29. Anastasios Gotzias*, Andreas Sapalidis, Evangelos Favvas, "Hydrogen Adsorption Simulations in Isomorphous Borohydride and Imidazolate Frameworks: Evaluations using Interpolation", *Int. J. Hydrogen Energy*, 46, **2021**, 19778–19787.
 30. Evangelos P. Favvas*, George Z. Kyzas, Eleni K. Efthimiadou, Athanasios Ch. Mitropoulos, "Production methods of Bulk NBS, stability mechanisms and applications", *Curr. Opin. Colloid Interface Sci.*, (**Invited Review Article**), 54, **2021**, 101455.
 31. Z.S. Metaxa*, A. Tolkou, S. Efsthathiou, A. Rahdar, E.P. Favvas, A.C. Mitropoulos, G.Z. Kyzas*, "Nanomaterials in cementitious composites: An update" *Molecules*, 26, **2021**, 1430.
 32. T. Esser, T. Wolf, T. Schubert, J. Benra, S. Forero, G. Maistros, S. Barbe, G.V. Theodorakopoulos, D.S. Karousos, A.A. Sapalidis and E.P. Favvas*, "CO₂/CH₄ and He/N₂ Separation Properties and Water Permeability Valuation of Mixed Matrix MWCNTs-Based Cellulose Acetate Flat Sheet Membranes: A Study of the Optimization of the Filler Material Dispersion Method", *Nanomaterials*, 11(2), 280, **2021**, 1–21.
 33. George Z. Kyzas*, Evangelos P. Favvas, Margaritis Kostoglou, Athanasios C. Mitropoulos, "Batch adsorption process without agitation by using bulk nanobubbles", *Colloid Surface A*, 607, **2020**, 125440.
 34. Dionysios S. Karousos, Linfeng Lei, Arne Lindbräthen, Andreas A. Sapalidis, Evangelos P. Kouvelos, Xuezhong He*, Evangelos P. Favvas*, "Cellulose-based carbon hollow fiber membranes for high-pressure mixed gas separation of CO₂/CH₄ and CO₂/N₂", *Separ. Purif. Technol.*, 253, **2020**, 117473.
 35. Linfeng Lei, Arne Lindbräthen, Xiangping Zhang, Evangelos P. Favvas, Marius Sandru, Magne Hillestad, Xuezhong He*, "Preparation of Highly CO₂ Selective Carbon Molecular Sieve Membranes for High Pressure Natural Gas Sweetening", *J. Membr. Sci.*, 614, **2020**, 118529.
 36. Andreas A. Sapalidis*, Panagiotis I. Karantzis, Achilles Vairis, Stéphan Barbe, Stephanos Nitodas, Evangelos P. Favvas*, "A study of reinforcement effect by MWCNTs into BTDA–TDI/MDI (P84) polyimide flat sheet membranes", *Polymers* 12(6), **2020**, 1381.
 37. M. Vengatesan, M.A. Wahab, S. Kuppireddy, G. Kakosimos, O. Abdalla, E. Favvas, D. Reinalda, F. Geuzebroek, A. Abdala, G. Karanikolos*, "Metal-Organic Framework - Based Mixed Matrix Membranes for Carbon Dioxide Separation: Recent Advances and Future Directions", *Frontier in Chemistry*, 8, **2020**, 534.
 38. Stéphan Barbe*, Moriz Berger, Roxanne Egnstler, Andrés Dieste, Leonardo Clavijo, Evangelos Favvas, Andreas Sapalidis, "One-step Preparation of Bilayered Films from Kraft Lignin and Cellulose Acetate to Mimic Tree Bark", *Eur. J. Wood and Wood Prod.*, 78, **2020**, 831–834.
 39. Anastasia Michalopoulou, Elisavet Michailidi, Evangelos Favvas, Noni-Pagona Marvelaki, Vassilis Kilikoglou, Ioannis Karatasios*, "Comparative evaluation of the morphological characteristics of nanolime dispersions for the consolidation of architectural monuments", *Int. J. Archit. Herit.*, 14, **2020**, 994–1007.
 40. Ioannis Floros, Evangelos Kouvelos, Georgios Pilatos, Evangelos Hadjigeorgiou, Evangelos Favvas, Andreas Sapalidis*, "Enhancement of flux performance in PTFE membranes for direct contact membrane distillation", *Polymers*, 12, **2020**, 345 (13).
 41. Elisavet D. Michailidi, George Bomis, Athanasios Varoutoglou, George Z. Kyzas, George Mitrikas, Eleni K. Efthimiadou, Athanasios Ch. Mitropoulos, Evangelos P. Favvas*, "Bulk

- nanobubbles: Production and investigation of their formation/stability mechanism*", J. Colloid Interface Sci., 564, **2020**, 371–380 (**On the journal cover**).
42. Linfeng Lei, Arne Lindbråthen, Magne Hillestad*, Marius Sandru, Evangelos Favvas, Xuezhong He*, "Screening Cellulose Spinning Parameters for Fabrication of Novel Carbon Hollow Fiber Membranes for Gas Separation", Ind. Eng. Chem. Res., 58, **2019**, 13330–13339.
 43. Evangelos P. Favvas*, Nikolaos S. Heliopoulos, Eamonn Devlin, Dionysios S. Karousos*, Sergios K. Papageorgiou, Dimitrios Petridis, Georgios N. Karanikolos*, "Mixed Matrix Polymeric and Carbon Hollow Fiber Membranes with Magnetic Iron-Based Nanoparticles and their Application in Gas Mixture Separation", Mater. Chem. Phys., 223, **2019**, 220–229.
 44. G.Z. Kyzas*, G. Bomis, R. Kosheleva, E.K. Efthimiadou, M. Kostoglou, E.P. Favvas, A.C. Mitropoulos, "Nanobubbles effect on heavy metal ions adsorption by activated carbon", Chem. Engin. J., 356, **2019**, 91–97.
 45. Ramonna Kosheleva*, Athanasios Varoutoglou, George Bomis, George Z. Kyzas, Evangelos P. Favvas, Athanasios Ch. Mitropoulos*, "A rotating sample cell for in-situ measurements of adsorption with X-rays", Rev. Sci. Instruments, 89, **2018**, 123113.
 46. A. Michalopoulou, E.P. Favvas, A.C. Mitropoulos, P. Maravelaki, V. Kilikoglou, I. Karatasios*, "A comparative evaluation of bottom-up and top-down methodologies for the synthesis of calcium hydroxide nanoparticles for the consolidation of architectural monuments", Materials Today: Proceedings 5, **2018**, 27425–27433.
 47. Alessandro Melicchio* and Evangelos P. Favvas*, "Preparation and characterization of graphene oxide as a candidate filler material for the preparation of mixed matrix polyimide membranes", Surf. Coat. Technol. 349, **2018**, 1058–1068.
 48. G.V. Belessiotis, K.G. Papadokostaki, E.P. Favvas, E.K. Efthimiadou*, S. Karellas, "Preparation and investigation of distinct and shape stable paraffin/SiO₂ composite PCM nanospheres", Energy Convers. Manag., 168, **2018**, 382–394.
 49. Evangelos P. Favvas*, Fotios K. Katsaros, Sergios K. Papageorgiou, Andreas A. Sapalidis, Athanasios Ch. Mitropoulos, "A Review of the Latest Development of Polyimide based Membranes for CO₂ Separations", React. Funct. Polym. 120, **2017**, 104–130.
 50. Nikolaos D. Alexopoulos*, Filippos D. Gegitsidis, Stavros K. Kourkoulis, Evangelos P. Favvas*, "Mechanical behavior of MWCNTs based mixed-matrix polymeric and carbon hollow fiber membranes", Separ. Purif. Technol. 183, **2017**, 21–31.
 51. C. Athanasekou, L.M. Pastrana-Martinez, T. Tsoufis, G. Romanos*, E. Favvas, A. Mitropoulos, V. Psycharis, F. Katsaros, A.M.T. Silva*, "Pore structure and vapor separation efficiency of pristine GO membranes derived from facile filtration of GO suspensions" J. Membr. Sci. 522, **2017**, 303–315.
 52. A. C. Mitropoulos*, E. P. Favvas*, K. L. Stefanopoulos, E. F. Vansant, "Scanning of adsorption hysteresis in situ with small angle x-ray scattering", Plos One, **2016**, 11(10): e0164636, doi:10.1371/journal.pone.0164636.
 53. Evangelos P. Favvas*, Konstantinos L. Stefanopoulos, Nikolaos Ch. Vordos, George I. Drosos, Athanasios Ch. Mitropoulos, "A study of the structural properties of calcium sulfate bone graft substitute cements", Materials Research 19, **2016**, 1108–1113.
 54. Evangelos P. Favvas*, George E. Romanos, Fotios K. Katsaros, Konstantinos L. Stefanopoulos, Sergios K. Papageorgiou, Athanasios Ch. Mitropoulos, Nick K. Kanellopoulos, "Gas permeance properties of asymmetric carbon hollow fiber membranes at high feed pressures", J. Nat. Gas Sci. Eng., 31, **2016**, 842–851.
 55. Evangelos P. Favvas*, "CO₂ permeation behavior through carbon membranes: A short review of the progress during the last decade" J. Membr. Separ. Technol. 5, **2016**, 3–15.
 56. E. P. Favvas*, K. L. Stefanopoulos*, A. A. Stefopoulos, S. F. Nitodas, A. Ch. Mitropoulos, D. Lairez, "Phenol functionalized MWCNTs: A dispersion study into polar solvents by Small Angle Neutron Scattering", Colloid Surface A 496, **2016**, 94–99.
 57. Evangelos P. Favvas*, Constantinos G. Tsanakisidis, Andreas A. Sapalidis, George T. Tzilanionis, Sergios K. Papageorgiou, Athanasios Ch. Mitropoulos, "Clinoptilolite: A natural zeolite material, structural characterization and performance evaluation on its dehydration properties of hydrocarbon-based fuels", Microp. Mesop. Mater. 225, **2016**, 385–391.
 58. Nikolaos S. Heliopoulos, Angeliki Galeou, Sergios K. Papageorgiou*, Evangelos P. Favvas, Fotios K. Katsaros, Kostas Stamatakis, "Modified in situ antimicrobial susceptibility testing method based on cyanobacteria chlorophyll a fluorescence", J. Microbiol. Methods 121, **2016**, 1–4.
 59. N. D. Alexopoulos*, E. P. Favvas*, A. Vairis, A. Ch. Mitropoulos, "MWCNTs composite resin materials: A mechanical and electrical approach" J. Engin. Sci. Tech. Review 8(4), **2015**, 7–14.
 60. G. Romanos*, L.M. Pastrana-Martínez, T. Tsoufis, C. Athanasekou, E. Galata, F. Katsaros, E. Favvas, K. Beltsios, E. Siranidi, P. Falaras, V. Psycharis, A.M.T. Silva*, "A facile approach for

the development of fine-tuned, self-standing graphene oxide membranes and their gas and vapor separation performance", *J. Membr. Sci.* 493, **2015**, 734–747.

61. Constantinos G. Tsanaksidis, Evangelos P. Favvas*, George T. Tzilantonis, Stavros G. Christidis, Elisavet Ch. Katsidi, Apostolos V. Scaltsoyiannes, "Water removal from Biodiesel/Diesel Blends and Jet Fuel using Natural Resin", *Canad. J. Chem. Engin.* 99, **2015**, 1812–1818.
62. A. C. Mitropoulos, K. L. Stefanopoulos, E. P. Favvas, E. F. Vansant, N. Hankins* "On the Formation of Nanobubbles in Vycor Porous Glass During Desorption of Halogenated Hydrocarbons", *Scientific Reports* 5, **2015**, 10943.
63. Evangelos P. Favvas*, Evangelos P. Kouvelos, Sergios K. Papageorgiou, Constantinos G. Tsanaksidis, Athanasios Ch. Mitropoulos "Characterization of natural resin materials using water adsorption and various advanced techniques", *Appl. Phys. A-Mater.* 119, **2015**, 735–743.
64. A. K. Christoforidis, A. Lazaridou, S. Orfanidis, S. K. Papageorgiou*, E. P. Favvas, A. Ch. Mitropoulos, "Study of Cu(II) removal by *Cystoseira crinitophylla* biomass in batch and continuous flow biosorption" *Chem. Engin. J.* 277, **2015**, 334–340.
65. E. P. Favvas, K. L. Stefanopoulos*, A. Ch. Mitropoulos, N. K. Kanellopoulos, "In situ SAXS study of dibromomethane adsorption on MCM-41", *Microp. Mesop. Mater.* 209, **2015**, 122–125.
66. Nikolaos S. Heliopoulos, Aggeliki Galeou, Sergios K. Papageorgiou*, Evangelos P. Favvas, Fotios K. Katsaros, Kostas Stamatakis, "An in situ antimicrobial susceptibility testing method based on in vivo measurements of chlorophyll *a* fluorescence", *J. Microbiol. Methods* 112, **2015**, 49–54.
67. Evangelos P. Favvas*, Nikolaos S. Heliopoulos, Sergios K. Papageorgiou, Athanasios Ch. Mitropoulos, George C. Kapantaidakis, Nick K. Kanellopoulos, "Helium and hydrogen selective carbon hollow fiber membranes: the effect of pyrolysis isothermal time", *Separ. Purif. Technol.* 142, **2015**, 176–181.
68. Evangelos P. Favvas*, Constantinos G. Tsanaksidis, George T. Tzilantonis, Stavros G. Christidis, "H₂O removal from diesel and JP8 fuels: A comparison study between synthetic and natural dehydration agents", *J. Engin. Sci. Tech. Review* 7(4), **2014**, 104–108.
69. Evangelos P. Favvas*, "Carbon dioxide permeation study through carbon hollow fiber membranes at pressures up to 55 bar", *Separ. Purif. Technol.* 134, **2014**, 158–162.
70. Constantinos G. Tsanaksidis, Evangelos P. Favvas*, George T. Tzilantonis, Apostolos V. Scaltsoyiannes, "A new fuel (D-BD-J) from conventional diesel, biodiesel and JP8 blending", *Fuel Proc. Techn.* 127, **2014**, 66–71.
71. Evangelos P. Favvas*, Konstantinos L. Stefanopoulos, John W. Nolan, Sergios K. Papageorgiou, Athanasios Ch. Mitropoulos, Didier Lairez, "Mixed Matrix Hollow Fiber Membranes with enhanced gas permeation properties" *Separ. Purif. Technol.* 132, **2014**, 336–345.
72. Sandra M. Miranda, George Em. Romanos*, Vlassis Likodimos, Rita R.N. Marques, Evangelos P. Favvas, Fotios K. Katsaros, Konstantinos L. Stefanopoulos, Vítor J.P. Vilar, Joaquim L. Faria, Polycarpus Falaras, Adrián M.T. Silva, "Pore structure, interface properties and photocatalytic efficiency of hydration/dehydration derived TiO₂/CNT composites", *Applied Catalysis B: Environmental*, 147, **2014**, 65–81.
73. Evangelos P. Favvas*, Stephanos F. Nitodas, Andreas Stefopoulos, Konstantinos L. Stefanopoulos, Sergios K. Papageorgiou and Athanasios Ch. Mitropoulos, "High Purity Multi-Walled Carbon Nanotubes: Preparation, Characterization and Performance as Filler Materials in co-polyimide Hollow Fiber Membranes", *Separ. Purif. Technol.* 122, **2014**, 262–269.
74. Nikos Heliopoulos, Sergios K. Papageorgiou*, Angeliki Galeou, Evangelos P. Favvas, Fotios K. Katsaros, Kostas Stamatakis "Effect of Copper and Copper Alginate treatment on wool fabric. Study of textile and Antibacterial Properties", *Surf. Coatings Techn.* 235, **2013**, 24–31.
75. E. P. Favvas*, S. K. Papageorgiou, K. L. Stefanopoulos, J. W. Nolan and A. Ch. Mitropoulos, "Effect of air gap on gas permeance/selectivity performance of BTDA-TDI/MDI co-polyimide hollow fiber membranes", *J. Appl. Polym. Sci.* 130, **2013**, 4490–4499.
76. Constantinos G. Tsanaksidis*, Evangelos P. Favvas*, Athanasios A. Scaltsoyiannes, Stavros G. Christidis, Elisabeth X. Katsidi, Apostolos V. Scaltsoyiannes "Natural resins and their application in antifouling fuel technology Part I: Improving the physicochemical properties of diesel fuel using natural resin polymers as a removable additives", *Fuel Proc. Techn.* 114, **2013**, 135–143.
77. E. P. Favvas*, K. L. Stefanopoulos, A. Vairis, J. W. Nolan, K. D. Joensen and A. Ch. Mitropoulos, "In situ SAXS investigation of dibromomethane adsorption in ordered mesoporous silica", *Adsorption* 19, **2013**, 331–338.
78. E. P. Favvas*, K. L. Stefanopoulos, S. K. Papageorgiou, A. Ch. Mitropoulos "In situ small angle x-ray scattering and benzene adsorption in carbon hollow fiber membranes", *Adsorption* 19, **2013**,

79. Constantinos G. Tsanaktsidis*, Stavros G. Christidis, Evangelos P. Favvas*, "A novel method for improving the physicochemical properties of diesel and jet fuel using polyaspartate polymer additives", *Fuel* 104, **2013**, 155–162.
80. Evangelia G. Deze, Sergios K. Papageorgiou*, Evangelos P. Favvas, Fotis K. Katsaros, "Porous alginate aerogel beads for effective and rapid heavy metal sorption from aqueous solutions: Effect of porosity in Cu^{2+} and Cd^{2+} ion sorption", *Chem. Engin. J.* 209, **2012**, 537–546.
81. S. K. Papageorgiou*, F. K. Katsaros, E. P. Favvas, G. Em. Romanos, C. P. Athanasekou, K. G. Beltsios, O. I. Tziaila and P. Falaras*, "Alginate Fibers as Photocatalyst immobilizing agents applied in hybrid Photocatalytic/Ultrafiltration Water treatment processes", *Water Research* 46, **2012**, 1858–1872.
82. E. P. Favvas*, K. L. Stefanopoulos and A. Ch. Mitropoulos "A simple equation for accurate mesopore size calculations", *Microp. Mesop. Mater.* 145, **2011**, 9–13.
83. E. P. Favvas*, G. E. Romanos*, S. K. Papageorgiou, F. K. Katsaros, A. Ch. Mitropoulos and N. K. Kanellopoulos "A Methodology for the morphological and physicochemical characterisation of asymmetric carbon hollow fiber membranes", *J. Membr. Sci.* 375, **2011**, 113–123.
84. Sergios K. Papageorgiou*, Evangelos P. Favvas, Andreas A. Sapalidis, George E. Romanos and Fotios K. Katsaros, "Facile synthesis of carbon supported copper nanoparticles from alginate precursor with controlled metal content and catalytic NO reduction properties", *J. Hazardous Materials* 189, **2011**, 384–390.
85. Sergios K. Papageorgiou*, Evangelos P. Kouvelos, Evangelos P. Favvas, Andreas A. Sapalidis, George E. Romanos, Fotios K. Katsaros, "Metal carboxylate interactions in metal alginate complexes studied with FTIR spectroscopy", *Carbohydrate Research* 345, **2010**, 469–473.
86. E. P. Favvas, A. A. Sapalidis, K. L. Stefanopoulos*, G. E. Romanos, N. K. Kanellopoulos, E. K. Kargiotis and A. Ch. Mitropoulos "Characterisation of carbonate rocks by combination of scattering, porosimetry and permeability techniques", *Microp. Mesop. Mater.* 120, **2009**, 109–114.
87. G. E. Romanos*, O. C. Vangeli, K. L. Stefanopoulos, E. P. Kouvelos, S. K. Papageorgiou, E. P. Favvas and N. K. Kanellopoulos "Methods of evaluating pore morphology in hybrid organic-inorganic porous materials", *Microp. Mesop. Mater.* 120, **2009**, 53–61.
88. E. P. Favvas* and A. Ch. Mitropoulos "What is spinodal decomposition?", *J. Engin. Sci. Tech. Review* 1, **2008**, 25–27.
89. E. P. Favvas*, E. P. Kouvelos, G. E. Romanos, G. I. Pilatos, A. Ch. Mitropoulos and N. K. Kanellopoulos "Characterization of highly selective microporous carbon hollow fiber membranes prepared from a commercial co-polyimide precursor", *J. of Porous Materials* 15, **2008**, 625–633.
90. S. F. Nitodas*, E. P. Favvas, G. E. Romanos, M. A. Papadopolou, A. Ch. Mitropoulos and N. K. Kanellopoulos "Synthesis and Characterization of Hydrogen Selective Silica-based Membranes", *J. of Porous Materials* 15, **2008**, 551–557.
91. A. Labropoulos, G. E. Romanos*, G. I. Pilatos, N. K. Kakizis, E. P. Favvas and N. K. Kanellopoulos, "Investigating the evolution of N_2 transport mechanism during the post treatment of silica membranes by application of a cyclic chemical vapor deposition method", *Microp. Mesop. Mater.* 110, **2008**, 11–24.
92. E. K. Chatzidaki, E. P. Favvas*, S. K. Papageorgiou, N. K. Kanellopoulos and N. V. Theophilou "New Polyimide – Polyaniline Hollow Fibers: Synthesis, Characterization and behavior in Gas Separation", *Europ. Polym. J.* 43, **2007**, 5010–5016.
93. E.P. Favvas*, G.C. Kapantaidakis, J.W. Nolan, A.Ch. Mitropoulos and N.K. Kanellopoulos "Preparation, characterization and gas permeation properties of carbon hollow fiber membranes based on Matrimid® 5218 precursor", *J. Mater. Proc. Tech.* 186, **2007**, 102–110.

BOOK CHAPTERS & BOOKS

BOOK CHAPTERS

1. E.P. Favvas*, D.S. Karousos, A.A. Sapalidis, G.Z. Kyzas, A.Ch. Mitropoulos, Chapter 17th: "Effect of nanobubble technology on membrane water processes", **2024**, pp. 489–527, in book series "Current Trends and Future Developments on (Bio-) Membranes" (A. Basile & E.P. Favvas, Eds), 1st Edition, "Modern Approaches in Membrane Technology", Paperback ISBN: 9780323993111, eBook ISBN: 9780323993128, Elsevier, **2023**, Amsterdam, Netherlands.
2. D.S. Karousos* and E.P. Favvas, Chapter 14th: "New perspectives in O_2/N_2 separations", **2024**, pp. 383–426, in book series "Current Trends and Future Developments on (Bio-) Membranes" (A. Basile and E.P. Favvas, Eds), 1st Edition, "Modern Approaches in Membrane Technology", Paperback ISBN: 9780323993111, eBook ISBN: 9780323993128, Elsevier, **2023**, Amsterdam, Netherlands.

3. G.Z. Kyzas, E.P. Favvas, A.C. Mitropoulos, "Nanohybrid graphene-based materials for advanced wastewater treatment: Adsorption and membrane technology", in book entitled "Membrane desalination: from the nanoscale to real world applications", Editor: A.A. Sapolidis, pp. 91–123, ISBN 9780367030797, CRC Press/Taylor and Francis Group, **2021**, Abington, UK.
4. E.P. Favvas*, S.P. Kaldis, X. He, Chapter 6: "Carbon membranes for natural gas sweetening", in book entitled "Carbon Dioxide Separation/Capture by Using Membranes", Eds: X. He and I. Kumakiri, 1st Edition, pp. 79–113, ISBN 9781138333376, CRC publisher, **2021**, Abington, UK.
5. E.D. Michailidi*, G. Bomis, A. Varoutoglou, E.K. Efthimiadou, A.Ch. Mitropoulos, E.P. Favvas*, Chapter 6th: "Fundamentals and Applications of Nanobubbles", in book entitled "Advanced low-cost separation techniques in interface science: Opportunities and new challenges", Interface Science and Technology, 30, **2019**, 69–99.
6. E.P. Favvas*, A. Figoli, R. Castro-Munoz, V. Fila, X. He, Chapter 1st: "Polymeric membrane materials for CO₂ separations", in book series "Current Trends and Future Developments on (Bio-) Membranes" (A. Basile and E.P. Favvas, Eds), 1st Edition, "Carbon Dioxide Separation/Capture by Using Membranes", pp. 3–50, Paperback ISBN: 9780128136454, Elsevier, **2018**, Amsterdam, Netherlands.
7. E.P. Favvas*, Chapter 5th: "Nanomaterials and their applicability as membranes' fillers", in book entitled "Innovations in Nanomaterials", pp. 105–154, ISBN: 978-1-63483-548-0, Nova Science Publishers, Inc., **2015**, New York, U.S.A.
8. E.P. Favvas* and S.K. Papageorgiou, Chapter 11th: "Polyaniline: A Promising Precursor Material for Membrane Technology Applications", in book entitled "Trends in Polyaniline Research", pp. 261–286, ISBN: 978-1-62808-424-5, Nova Science Publishers, Inc., **2013**, New York, U.S.A.

BOOKS

1. Angelo Basile and Evangelos P. Favvas (**Editors**), Current Trends and Future Developments on (Bio-) Membranes, 1st Edition, "Modern Approaches in Membrane Technology", Elsevier Publisher, **2023**, Paperback ISBN: 9780323993111, eBook ISBN: 9780323993128, Amsterdam, Netherlands.
2. Angelo Basile and Evangelos P. Favvas (**Editors**), Current Trends and Future Developments on (Bio-) Membranes, 1st Edition, "Carbon Dioxide Separation/Capture by Using Membranes", Elsevier Publisher, **2018**, Paperback ISBN: 9780128136454, Amsterdam, Netherlands.



PATENTS

1. D. Karousos, A. Sapolidis, G. Karanikolos, E. Favvas, "Magnetic Swing Absorption", USPTO No. 63/078,433, Filed on September 15, **2020**.
2. D. Karousos, A. Sapolidis, G. Karanikolos, E. Favvas, "Magnetic-Based Determination of Sorption Separation Factor for Binary Gas Mixtures", USPTO No. 63/078,364, Filed on September 15, **2020**.
3. George Karanikolos, Evangelos P. Favvas, Nikolaos S. Heliopoulos, Sergios K. Papageorgiou, "Gas Separation Membranes under Magnetic Field", WO 2019/012317A1, World Intellectual Property Organization, January 17, **2019** (Filed also as: Karanikolos et al., MEMBRANE GAS SEPARATION UNDER MAGNETIC FIELD US Patent, No: 2020/0338496 A1, 29 October **2020**).
4. Z. S. Metaxa, E. P. Favvas, S. Kourkoulis, "A smart sensor based on cement nanomaterials for the real time investigation and the prediction of the defects on the cement based constructions", (Industrial Property Organization), Patent No: 1009512 (**2019**).
5. A. Ch. Mitropoulos, E. P. Favvas, K. L. Stefanopoulos, "A method for evaluation of nanobubbles into a porous media", I.P.O. (Industrial Property Organization), Patent No: 1008522 (**2015**).

CONFERENCES

1. K.L. Stefanopoulos, E.P. Favvas, G. Karanikolos, W. Alameri, A.A. Sapolidis, T. Headen, T. Youngs, D. Bowron, "Neutron Scattering Applications in CO₂ Sequestration and Enhanced Oil Recovery", The International Conference on Neutron Scattering (ICNS) 2025, 6th to 10th July **2025**, Copenhagen, Denmark.
2. K. Zoukidis, M.T. Chatziathanasiou, A. Gertsis, C. Vasilikiotis, A. Apostolidis, A. Varoutoglou, E.P. Favvas, "Application of nanobubbles irrigation technology, in combination with biostimulants, in leafy vegetables production using hydroponic grow bags", XIII Word Congress of the European Water Resources Association – EWRA 2025, New challenges in understanding and managing water-related risks in a changing environment 24 – 28 June **2025**, Palermo, Italy
3. K. Zoukidis, M.T. Chatziathanasiou, A. Gertsis, C. Vasilikiotis, A. Apostolidis, A. Varoutoglou,

- E.P. Favvas, "Evaluation of irrigation with nanobubble-enriched water in combination with Biostimulants on lettuce production (*Lactuca sativa* L.)", XIII Word Congress of the European Water Resources Association – EWRA 2025, New challenges in understanding and managing water-related risks in a changing environment 24 – 28 June **2025**, Palermo, Italy
4. E. Avruscio, D.S. Karousos, G. Theodorakopoulos, G. Barbieri, E.P. Favvas, A. Brunetti "Syngas upgrating through carbon membrane separation: a novel approach to biomass-to-biofuel processes", International Congress on Sustainable Energy and related Technologies, June 22-26, **2025**, Lipari, Italy
 5. G. Barbieri, E. Avruscio, D.Chen, L. Lei, D.S. Karousos, E.P. Favvas, X. He, A. Brunetti, "Syngas upgrading using carbon membranes for selective H₂ and CO₂ separation", 9th European Process Intensification Conference, June 4-6 **2025**, Athens, Greece
 6. I. Papaioannou*, G.V. Theodorakopoulos, D.S. Karousos, M. Bouroushian, E.P. Favvas, "Development of sustainable mixed matrix alginate membranes' substrates for gas separations", 4th Athens Conference on Advances in Chemistry (ACAC 2024), 6th – 8th November **2024**, Athens, Greece
 7. Lydia Gialama*, Dionysis S. Karousos, George Theodorakopoulos, Fotios K. Katsaros, Evangelos P. Favvas, Mirtat Bouroushian, "Synthesis and Characterization of Electric Double Layer Capacitors Using Carbon-Based Nanomaterials", 23rd Panhellenic Conference in Chemistry, NKUA, 25–28 September **2024**, Athens, Greece
 8. Sotiria Rekleiti*, George V. Theodorakopoulos, Dionysios S. Karousos, Evangelos P. Favvas, Georgios N. Karanikolos, "Ultem/Pebax composite membranes in CO₂ separation applications: study of the membrane optimized formation process", 23rd Panhellenic Conference in Chemistry, NKUA, 25–28 September **2024**, Athens, Greece
 9. E. Avruscio, D. Chen, L. Lei, D.S. Karousos, G. Barbieri, E.P. Favvas, X. He, A. Brunetti, Selective H₂ and CO₂ separation using carbon membranes for syngas upgrading, Euromembrane 2024, 08–12 September **2024**, Prague, Czech Republic
 10. Ramzi Abdelmoutaleb Debba, George V. Theodorakopoulos, Hanane Belayachi, Polycarpus Falaras, Evangelos P. Favvas, "Comparative Synthesis and Photocatalytic Performance Evaluation of SBA-Ti Nanostructures for Environmental Remediation", 12th European Conference on Solar Chemistry and Photocatalysis: Energy and Environmental Applications (SPEA12), 17-21 June **2024**, Belfast, UK
 11. K. Zoukidis, A. Gkertsis, M.Th. Chatziathanasiou, A. Apostolidis, E.P. Favvas, A. Varoutoglou, "Application of nanobubble (NBs) technology in irrigation water management for leafy vegetable production in greenhouse conditions" 16th Panhellenic Soil Science Conference, December 4–6, **2023**, Athens, Greece.
 12. I. Tournis, E.P. Favvas, E.P. Kouvelos, F. Aparicio, I. Requena, G. Zaragoza, A.A. Sapalidis, "Evaluation of the effect of nanobubbles in membrane distillation performance", 6th International Conference on Desalination using Membrane Technology 19-22 November **2023**, Sitges, Spain.
 13. G.V. Theodorakopoulos*, D.S. Karousos, A.A. Sapalidis, E.P. Favvas, "Development of gas selective polymeric flat sheet and hollow fiber membranes employing entirely green solvents", XXXVII PanHellenic Conference on Solid State Physics and Materials Science 17-20 September **2023**, Thessaloniki, Greece
 14. A. Brunetti, L. Lei, E. Avruscio, D.S. Karousos, A. Lindbråthen, E.P. Kouvelos, X. He, E.P. Favvas, B. Giuseppe, "Long-term performance of highly selective carbon hollow fiber membranes in presence of H₂S and humidity for biogas upgrading", Euromembrane **2022**, 20-24 November 2022, Sorrento, Naples, Italy
 15. I. Moutafis, R. Engstler, F.J. Fahling, I.M. Scoullas, E. Kouvelos, E.P. Favvas, S. Barbe, A.A. Sapalidis, "Pre-treatment adsorption methods of reverse osmosis for removal of surfactants and organic compounds from electroplating wastewater", Euromembrane **2022**, 20-24 November 2022, Sorrento, Naples, Italy
 16. G.V. Theodorakopoulos, D.S. Karoussos, A.A. Sapalidis, E.P. Favvas*, "Flat sheet and hollow fiber CO₂/CH₄ selective membranes based on green chemistry", Euromembrane 2022, 20-24 November **2022**, Sorrento, Naples, Italy
 17. A.N. Vasileiou, G.V. Theodorakopoulos, D.S. Karousos, A.A. Sapalidis, E.P. Favvas, "Study of nanocarbon-based mixed matrix flat sheet membranes preparation for CO₂/CH₄ separation", Euromembrane 2022, 20-24 November **2022**, Sorrento, Naples, Italy
 18. E.P. Favvas*, A.A. Sapalidis, D.S. Karousos, E. Patounas, G.Z. Kyzas, V. Koutsos, A. Ch. Mitropoulos, "A new hydrodynamic generator for bulk nanobubbles production; characterization and evaluation of properties and applications", Intern. Conf. Nanobubbles, Nanodroplets and their Applications, 18.9. - 21.9.**2022**, Magdeburg, Germany
 19. George V. Theodorakopoulos, Dionysios S. Karoussos, Andreas A. Sapalidis and Evangelos P.

- Favvas, "CO₂/CH₄ selective hollow fiber and flat sheet membranes based on green solvent", The 9th IUPAC International Conference on Green Chemistry (9th ICGC), 5th –9th September **2022**, Athens, Greece.
20. K.L. Stefanopoulos, E.P. Favvas, G.N. Karanikolos, W. Alameri, V. Kelessidis, T. Youngs, D. Bowron, "Monitoring the CO₂ Enhanced Oil Recovery Process at the Nanoscale: An In-Situ Neutron Scattering Study", International Conference on Neutron Scattering, ICNS **2022**, 21 – 25 August, Buenos Aires, Argentina.
 21. E.P. Favvas*, A.A. Sapalidis**, E.P. Kouvelos, G.K. Kyzas, A.C. Mitropoulos, "Nanobubbles' effect on Desalination via Direct Contact Membrane Distillation", Euromembrane **2021**, 28 November – 02 December, Copenhagen, Denmark.
 22. G.V. Theodorakopoulos, D.S. Karousos, A.A. Sapalidis, S. Forero, T. Schubert, E.P. Favvas, "Towards green chemistry: comparative study of effective composite hollow fiber membranes preparation for CO₂/CH₄ separation", Euromembrane 2021, 28 November-02 December, 2021, Copenhagen, Denmark.
 23. G.V. Theodorakopoulos, D.S. Karousos, A.A. Sapalidis, S. Forero, T. Schubert, E.P. Favvas*, "Pebax/Polyimide dual-layer hollow fiber membranes for gas separation applications", Euromembrane **2021**, 28 November – 02 December, Copenhagen, Denmark.
 24. M. Pahoulis, A.A. Sapalidis*, E.P. Kouvelos, A.Ch. Mitropoulos, G.K. Kyzas, E.P. Favvas*, "Study of Cu⁺² and dyes removal by palygorskite in batch and continuous flow processes", International conference on water and energy (ICWE'2021), 25–27 May **2021**, Chlef, Algeria.
 25. K. Mansouris, G. Theodorakopoulos, D. Karousos, A.A. Sapalidis, E. Efthimiadou, E.P. Favvas, "Ternary phase diagrams of polyimide/solvent/non-solvent systems", Athens Conference on Advances in Chemistry (ACAC2020), 10 -14 March, **2021**, Athens, Greece.
 26. E.G. Deze, D.S. Karousos, A.A. Sapalidis, E.P. Favvas, "Mesoporous Silica based copper catalytic materials: Synthesis, Characterization & deNO_x Evaluation", 17th International Conference on Nanosciences & Nanotechnologies (NN20), 7-10 July **2020**, Thessaloniki, Greece
 27. Z.S. Metaxa, E.P. Favvas, A.C. Mitropoulos, "Dispersing carbon nanomaterials facilitating aqueous air nanobubble solutions for use in cement based materials", 19th International Conference on Experimental Mechanics, July 5-9, **2020**, Kraków, Poland.
 28. D. Karousos, G. Maistros, G. Theodorakopoulos, S. Forero, A.A. Sapalidis, T. Schubert, E.P. Favvas, "Nanocarbon-based polyimide CO₂ Selective Hollow Fiber Membranes: a Dispersion Study of embedded filler materials by using impedance spectroscopy", 69th Canadian Chemical Engineering Conference (ECEE), 20-23 October **2019**, Halifax, Canada.
 29. Linfeng Lei, Arne Lindbråthen, Magne Hillestad, Marius Sandru, Xiangping Zhang, Evangelos P. Favvas, Xuezhong He, "Cellulose-developed Carbon Molecular Sieving Hollow Fiber Membranes for Gas Separation", ECCE12, The 12th European Congress of Chemical Engineering, 15-19 of September **2019**, Florence, Italy.
 30. D. Karousos, A.A. Sapalidis, E.P. Kouvelos, E.P. Favvas, "6th International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (6th IC4N), 30 June – 03 July **2019**, Corfu, Greece.
 31. E.D. Michailidi, E.K. Efthimiadou, A.C. Mitropoulos, E.P. Favvas, "A novel method of bulk nbs production: evaluation of the physicochemical properties", 6th International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (6th IC4N), 30 June – 03 July **2019**, Corfu, Greece.
 32. A. Michalopoulou, E. Michailidi, E.P. Favvas, P. Maravelaki, V. Kilikoglou, I. Karatasios, "Comparative evaluation of the morphological and rheological characteristics of nanolime dispersions for the consolidation of architectural monuments", 5th Historic Mortars Conference HMC 2019, Pamplona, 19th-21st June, **2019**, Spain.
 33. Linfeng Lei, Arne Lindbråthen, Magne Hillestad, Marius Sandru, Xiangping Zhang, Evangelos P. Favvas, Xuezhong He, "Cellulose-based carbon hollow fiber membranes for CO₂ removal from natural gas", Trondheim CCS Conference, CO₂ capture and Storage, 17–19 of June **2019**, Trondheim, Norway.
 34. T. Esser, T. Wolf, T. Schubert, J. Benra, S. Forero, G. Maistros, A.A. Sapalidis, E.P. Favvas, "Nanocarbon-based cellulose acetate membranes for CO₂ separation applications" 12^o Πανελλήνιο Συνέδριο Χημικής Μηχανικής, 29 – 31 Μαΐου **2019**, Αθήνα, Ελλάδα.
 35. M. Pachoulis, A.A. Sapalidis, C. Tsanaksidis, E.P. Favvas*, "Study of Cu²⁺ from liquid phase by using attapulgite natural mineral" 12^o Panellenic Conference of Chemical Engineering, 29 – 31 May **2019**, Athens, Greece.
 36. I. Floros, A. Sapalidis*, G. Pilatos, E. Favvas, E. Chatzigeorgiou, "Preparation of polymeric membranes with targeted hydrophobicity for applications in desalination through membrane distillation process" 12^o Panellenic Conference of Chemical Engineering, 29 – 31 May **2019**, Athens, Greece.
 37. T. Esser, T. Wolf, T. Schubert, S. Barbe, J. Benra, E.P. Favvas, "CO₂ separation by means of mixed matrix materials based on Nano-Carbon Materials" NanoCarbon 2019, 26th and 27th of

February 2019, Würzburg, Germany.

38. E. Michailidi, E.K. Efthimiadou, E.P. Favvas, "A novel hydrodynamic method for bulk nanobubbles production; characterization and evaluation of wetting properties", Athens Conference on Advances in Chemistry, 30th October – 02nd November 2018, Athens, Greece.
39. E. Michailidi, G. Mitrikas, M. Krokidis, E.P. Favvas, E.K. Efthimiadou, "Evaluation of NBs@Air and NBs@O₂ affection on biological systems: Study of ROS induced cell toxicity", Athens Conference on Advances in Chemistry, 30th October – 02nd November 2018, Athens, Greece.
40. R. Kosheleva, G. Kyzas, E. Favvas, T. Karapantsios, M. Kostoglou, A. Mitropoulos, "Comparison of adsorption properties of two different activated carbons for liquid and gas phase adsorbates", 11^o Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, 25–27, Μαΐου 2017, Θεσσαλονίκη, Ελλάδα.
41. A. Michalopoulou*, E. P. Favvas, A. Ch. Mitropoulos, P. Maravelaki, V. Kilikoglou, I. Karatasios, "A comparative evaluation of bottom-up and top-down methodologies for the synthesis of calcium hydroxide nanoparticles for the consolidation of architectural monuments", 11^o Panhellenic Chemical Engineering Conference, 25–27, May 2017, Thessaloniki, Greece.
42. E.P. Favvas*, K.L. Stefanopoulos, N.D. Alexopoulos, A.A. Stefopoulos, A.Ch. Mitropoulos, "Mixed matrix MWCNTs/Polyimide hollow fiber membranes: MWCNTs dispersion investigation by SANS, gas permeability performance and mechanical tests", 5th International Symposium Frontiers in Polymer Science, 17–19 May 2017, Seville, Spain.
43. R. I. Kosheleva, E. P. Favvas, A. Th. Varoutoglou, G. A. Bomis, T. D. Karapantsios, A. Ch. Mitropoulos, "On the adsorption capacity of nanoporous materials under the influence of a rotational field", 7th Panhellenic Confer. Porous Materials, 2nd–4th June, 2016, Ioannina, Greece.
44. E. D. Michailidi, R.I. Kosheleva, G. Bomis, A. Varoutoglou, E. P. Favvas*, A. Ch. Mitropoulos, "Nanobubbles production by different devices", 7th Panhellenic Confer. Porous Materials, 2nd–4th June, 2016, Ioannina, Greece.
45. E.P. Favvas*, K.L. Stefanopoulos, A.A. Stefopoulos, A.Ch. Mitropoulos, D. Lairez, "Small-angle neutron scattering from phenol-functionalized multi-wall carbon nanotubes in NMP and DMSO solutions", 7th Panhellenic Confer. Porous Materials, 2nd–4th June, 2016, Ioannina, Greece.
46. A. Th. Varoutoglou, G. A. Bomis, T. Merou, G. Varsamis, E. K. Karapatzak, E. D. Michailidi, R. I. Kosheleva, E. P. Favvas, A. Ch. Mitropoulos, "Flow of nanobubbles through porous media: the effect on plant growth", 7th Panhellenic Confer. Porous Materials, 2nd–4th June, 2016, Ioannina, Greece.
47. A.A. Moutzouroglou, R.I. Kosheleva, E.D. Michailidi, E.P. Favvas, A.Vairis, A.Ch. Mitropoulos, "Interpreting research efforts on nanomaterials", 7th Panhellenic Confer. Porous Materials, 2nd–4th June, 2016, Ioannina, Greece.
48. Nikolaos S. Heliopoulos, Angeliki Galeou, Sergios K. Papageorgiou, Evangelos P. Favvas, Fotios K. Katsaros, Evangelos Gogolides, Angeliki Tserepi, Kosmas Ellinas, Dionysia Kefallinou, Kostas Stamatakis, "An in situ antimicrobial susceptibility testing method based on cyanobacterial chlorophyll a fluorescence", 12th Workshop on Cyanobacteria, Arizona State University Campus, May 19th – 22th, 2016 Tempe, Arizona, USA.
49. E.D. Michailidi, R.I. Kosheleva, E.P. Favvas, A.C. Mitropoulos, "Determination and comparison of size and stability of Nanobubbles produced by two different generators", Smart and Green Interfaces Conference 2016, 04th – 06th May 2016, Athens, Greece.
50. R.I. kosheleva, E.P. Favvas, T.D. Karapantsios, A.Ch. Mitropoulos, "Adsorption in conjunction with SAXS under the influence of a rotational field", Smart and Green Interfaces Conference 2016, 04th – 06th May 2016, Athens, Greece.
51. F. D. Gegitsidis, N. D. Alexopoulos, E. P. Favvas and S. K. Kourkoulis, "Effect of carbon nanotubes addition on the mechanical performance of co-polyimide hollow fiber membranes", Inter. Conf. "Science in Technology", SCiTE-2015, 05th – 07th November 2015, Athens, Greece.
52. S. P. Kaldis, G. Kapantaidakis, E. P. Favvas, D. E. Koutsonikolas, V. T. Zaspalis, "Assessment of Polymeric, Carbon and Ceramic Membranes Integration in IGCC Process for H₂ Production and CO₂ Capture" 4th Conference on Carbon Dioxide as Feedstock for Fuels, Chemistry and Polymers, 29th – 30rd September 2015, Haus der Technik (HDT), Essen, Germany
53. Ilona Lazaridou, Nikolaos Alexopoulos, Evangelos Favvas, Markos Petousis, Achilles Vairis, "Fatigue mechanical behavior of MWCNT reinforced GFRP composites under the presence of artificial defects" 20th International Conference on Composite Materials (ICCM20), 19th – 24th July 2015, Copenhagen, Denmark
54. A. Ch. Mitropoulos, E. P. Favvas, K. L. Stefanopoulos, "A study on theorem-6 of Everett's domain theory", 5th International Colloids Conference, 21st – 24th June 2015, Amsterdam, The Netherlands

55. N. Ch. Vordos, J. W. Nolan, E. P. Favvas, S. Touloupidis, S. Giannakopoulos, C. Kalaitzis, A. Ch. Mitropoulos, "Nano – Structure Characterization of Kidney Stones and Scanning Hysteresis Loop", 5th International Colloids Conference, 21st – 24th June **2015**, Amsterdam, The Netherlands
56. P. Karantzis, E. P. Favvas*, A. A. Sapalidis, A. Vairis, N. D. Alexopoulos, A. Ch. Mitropoulos, "A study of MWCNTs reinforcement in P84 polyimide films", 4th International Symposium Frontiers in Polymer Science, 20 – 22 May **2015**, Riva del Garda, Italy
57. C. Tsanaktsidis, E. P. Favvas, A. Scaltsoyiannes, S. Christidis, G. Tzilantonis, A. Scaltsoyiannes, "Development of a new fuel using natural products" 12^o Conference of Chemistry, Greece-Cyprus, 8th–10th May **2015**, Thessaloniki, Greece.
58. E. P. Favvas*, K. L. Stefanopoulos, A. A. Stefopoulos, S. F. Nitodas, A. Ch. Mitropoulos, D. Lairez, "Dispersion study of functionalized MWCNTs into different polar solvents by SANS", 7th International Workshop 'Characterization of Porous Materials: from Angstroms to Millimeters' (CPM-7), 3rd – 6th May **2015**, Delray Beach, Florida, U.S.A.
59. K. Dimos, M. K. Antoniou, Ch. Tampaxis, E. P. Favvas, P. N. Trikalitis, Th. A. Steriotis, D. Gournis, "Porous carbon materials for gas storage", Intern. Conference on Advances in Composite Materials and Structures, 13th – 15th April **2015**, Istanbul, Turkey
60. A. Ch. Mitropoulos, K. L. Stefanopoulos, E. P. Favvas, N. C. Kokkinos, E. Vansant, N. P. Hankins, "Formation of nanobubbles on fractal vycor glass surface", Smart and Green Interfaces Conference – 2015, March 30th - April 1st **2015**, Belgrade, Serbia
61. A. N. Talarou, Z. S. Metaxa, N. D. Alexopoulos, E. P. Favvas, C. Mercader, "Effective dispersion of nano graphene platelets in cementitious materials", 30th Panhellenic Conference on Solid-State Physics and Materials Science, 21st – 24th, September **2014**, Heraklion, Crete, Greece
62. F. D. Gegitsidis, N. D. Alexopoulos, E. P. Favvas, S. K. Kourkoulis, "The effect of multi-wall carbon nanotubes addition on the performance of P84 co-polyimide hollow fiber membranes", 30th Panhellenic Conference on Solid-State Physics and Materials Science, 21st – 24th, September **2014**, Heraklion, Crete, Greece
63. Z. S. Metaxa, E. P. Favvas, C. Mercader, F. Poulin, N. D. Alexopoulos, "A preliminary study on the development of graphene/cement based nanocomposites", 39th Solid Mechanics Conference (SOLMECH 2014), 1st – 5th September **2014**, Zakopane, Poland
64. E. P. Favvas*, Athanasios Ch. Mitropoulos, Nick K. Kanellopoulos, "Helium recovery from natural gas sources using carbon hollow fiber membrane", 13th International Conference on Inorganic Membranes, 6th – 9th July, **2014**, Brisbane, Australia
65. E. P. Favvas*, K. L. Stefanopoulos, N. Ch. Vordos, A. Ch. Mitropoulos, "In situ CH₂Br₂ adsorption and SAXS measurements in MCM-41", COPS-X, 11th – 14th May, **2014**, Granada, Spain
66. E. P. Favvas*, K. L. Stefanopoulos, J. W. Nolan, A. Ch. Mitropoulos, "Mixed Matrices MWCNTs/Carbon Hollow Fiber Membranes: Preparation and Characterization", COPS-X, 11th – 14th May, **2014**, Granada, Spain
67. Evangelos P. Favvas*, Athanasios Ch. Mitropoulos, Nick K. Kanellopoulos, "CO₂ permeability through carbon hollow fiber membranes. From atmospheric pressure up to 55 bar", IICBE, 17th – 18th March, **2014**, Dubai, United Arab Emirates
68. Achilleas Vairis, Nikolaos D. Alexopoulos, Evangelos P. Favvas, Stephanos Nitodas, "Strain sensing of glass fiber reinforced coupons by using carbon nanotube CNT doped resin", ASME 2013– International Mechanical Engineering Congress & Exposition, 15th – 21st November, **2013**, San Diego – CA, U.S.A.
69. A. Scaltsoyiannes, C. Tsanaktsidis, D. Mitras, E. Katsidi, E. Favvas, M. Tsaktsira, "Pine resin and liquid fuels (diesel) Cloning-identification of finest genotypes of Aleppo pine (pinus halepensis mill) selected for resin production", 16^o Conference of the Hellenic Forestry Society, 6th–9th October, **2013**, Thessalonica, Greece
70. D. A. Gkika, P. Cool, E. F. Vansant, J. W. Nolan, N. Vordos, E. P. Favvas and A. Ch. Mitropoulos, "How much do nanomaterials cost?", 6th Panhellenic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
71. Evangelia G. Deze, Sergios K. Papageorgiou, Evangelos P. Favvas, Fotis K. Katsaros, "Porous alginate aerogel beads for effective and rapid heavy metal sorption from aqueous solutions", 6th Panhellenic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
72. K. D. Karakosta, E. P. Favvas*, E. P. Kouvelos, N. C. Kokkinos, A. Ch. Mitropoulos, R. Nickolov, "A study of domain theory on Vycor glass", 6th Panhellenic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
73. J. W. Nolan, D. Gkika, N. Vordos, E.P. Favvas, A. Ch. Mitropoulos, "The NANOCAPILLARY Software for Analysis, Simulation and Cataloging of Small Angle X-Ray Scattering data", 6th

Panhellinic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece

74. E. P. Favvas*, K. L. Stefanopoulos, N. Ch. Vordos, A. Ch. Mitropoulos, "*Dibromomethane adsorption on mcm-41 by in situ SAXS*", 6th Panhellinic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
75. E. P. Favvas*, K. L. Stefanopoulos, J. W. Nolan, A. A. Stefopoulos, S. F. Nitodas, A. Ch. Mitropoulos, D. Lairez, "*Preparation and characterization of nanocomposite mwcnts/p84 hollow fiber membranes*", 6th Panhellinic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
76. E. P. Favvas*, K. L. Stefanopoulos, N. Ch. Vordos, G. I. Drosos, A. Ch. Mitropoulos, "*Characterization of calcium sulfate bone graft substitutes by porosimetry methods*", 6th Panhellinic Conference of Porous Materials, 9th – 10th September, **2013**, Cavala, Greece
77. E. P. Favvas*, K. L. Stefanopoulos, S. F. Nitodas, A. A. Stefopoulos and A. Ch. Mitropoulos, "*Morphology of carbon nanotubes dispersed in solvents and into polymer and carbon membranes: A SANS study*", International Conference on Neutron Scattering, 8th – 12th July, **2013**, Edinburgh, U.K.
78. Evangelos P. Favvas*, Kostas Stamatakis, Nikolaos Heliopoulos, Sergios K. Papageorgiou and Nick K. Kanellopoulos, "*Enhance of hydrogen production from Chlamydomonas reinhardtii algae using membrane technology*", International Conference of Photosynthesis, 5th – 9th June, **2013**, Baku Azerbaijan
79. Evangelos P. Favvas*, Konstantinos L. Stefanopoulos, Nikolaos Ch. Vordos and Athanasios Ch. Mitropoulos, "*In situ SAXS study of adsorption in porous glass including hysteresis scanning measurements*", 11th International Conference on the Fundamentals of Adsorption (FOA), 19th – 24th May, **2013**, Baltimore, U.S.A.
80. Evangelos P. Favvas*, Stephanos F. Nitodas, Konstantinos L. Stefanopoulos, Sergios K. Papageorgiou and Athanasios C. Mitropoulos, "*High Purity Multi-Walled Carbon Nanotubes: Preparation, Characterization and Performance as Filler Materials in co-polyimide Hollow Fiber Membranes*", 11th International Conference on the Fundamentals of Adsorption (FOA), 19th–24th May, **2013**, Baltimore, U.S.A.
81. S.K. Papageorgiou, F.K. Katsaros, E.P. Favvas, G.Em. Romanos, N.K. Kanellopoulos, P.Falaras, "*Alginate/TiO₂ Photocatalytic Hollow Fiber Membranes for NO Decomposition in Flow Through Membrane Reaction Applications*", 7th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications - SPEA7, Proceedings pp 454–455. 17th–20th June, **2012**, Porto, Portugal
82. E. P. Favvas*, K. L. Stefanopoulos, A. Vairis, J. W. Nolan and A. Ch. Mitropoulos, "*In situ SAXS investigation of dibromomethane adsorption in ordered mesoporous silica*", Eighth International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids, 27th – 31st August, **2012**, Krakow, Poland
83. E. P. Favvas*, K. L. Stefanopoulos, S. K. Papageorgiou, J. W. Nolan and A. Ch. Mitropoulos, "*In situ small angle x-ray scattering and benzene adsorption in carbon hollow fiber membranes*", Eighth International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids, 27th – 31st August, **2012**, Krakow, Poland
84. K. Tsanaksidis, S. Christidis, E. Favvas and G. Tzilantonis, "Development of hydrophilic polymers for the fuel properties improvement" 21^o Panellinic Conference in Chemistry, 9–12 December **2011**, Thessalonica, Greece
85. E.P. Favvas*, K.L. Stefanopoulos, A.Ch. Mitropoulos, "A new simple equation for the mesopores size calculation" 5^o Panellinic Symposium of Porous Materials, University of Crete, 30 June – 1 July **2011**, Heracleio, Crete, Greece
86. S. K. Papageorgiou, E. P. Favvas, A. A. Sapalidis, G. E. Romanos, F. K. Katsaros, "*Synthesis of alginate based carbon/metal nanoparticles composite with controlled metal content and catalytic properties*", 9th International Symposium on the Characterisation of Porous Solids - COPS IX, 5 – 9 June, **2011**, Dresden, Germany
87. E. P. Favvas*, K. L. Stefanopoulos, A. Ch. Mitropoulos and N. K. Kanellopoulos, "*Structural characterization of microporous carbon hollow fiber membranes by in situ SAXS during C₆H₆ adsorption*", 9th International Symposium on the Characterisation of Porous Solids - COPS IX, 5 – 9 June, **2011**, Dresden, Germany
88. S. K. Papageorgiou, E. P. Favvas*, P. G. Tatsiou, F. K. Katsaros and N. K. Kanellopoulos, "*Preparation and characterization of alginate based porous hollow fiber membranes*", 9th International Symposium on the Characterisation of Porous Solids - COPS IX, 5 – 9 June, **2011**, Dresden, Germany
89. E. P. Favvas*, N. S. Heliopoulos, S. K. Papageorgiou, F. K. Katsaros, A. Ch. Mitropoulos and N.

- K. Kanellopoulos, "The pyrolysis conditions effect on structure and properties of P84 based carbon hollow fiber membranes", 9th International Symposium on the Characterisation of Porous Solids - COPS IX, 5 – 9 June, **2011**, Dresden, Germany
90. N. Heliopoulos, E. Favvas, S. Papageorgiou, D. Petridis and N. Kanellopoulos, "Study of the effect of magnetic field on gas separation performance of magnetic nanocomposite polymeric and carbon hollow fiber membranes", 8th Hellenic Polymer Society Symposium, 24 – 29 October, **2010**, Hersonissos, Crete, Greece
 91. E.P. Favvas*, K.L. Stefanopoulos, N.K. Kanellopoulos, A.Ch. Mitropoulos, "Characterization of carbon membranes using benzene adsorption in conjunction with SAXS" 4th Panellinic Symposium of Porous Materials, FORTH/ICE-HT & University of Patras, October 22–23 **2009**, Patra, Greece
 92. E. P. Favvas*, G. E. Romanos, S. K. Papageorgiou, A. A. Sapalidis, F. K. Katsaros, A. Ch. Mitropoulos, N. K. Kanellopoulos "High pressure gas permeability of carbon hollow fiber membranes", 1st International Workshop NAPEN 2008 "NAnoPorous materials in ENergy and ENvironment", 12 – 15 October, **2008**, Chania – Crete, Greece
 93. L. V. Massaras, I. K. Mertzaniides, E. P. Favvas, A. Ch. Mitropoulos, E. K. Kargiotis "Fracture Entry Friction and Fracture Tip Dilatancy: Major Advances on the Design, Placement and Analysis of Propped Hydrofrac Treatments", STIMtech 2008, 3rd International Conference and Exhibition, 1–2 February, **2008**, Mumbai, India
 94. A.I. Labropoulos, G.E. Romanos, G.I. Pilatos, N.K. Kakizis, E.P. Favvas, N.K. Kanellopoulos, "The evolution of permeation properties of composite ceramic membranes with manyfold chemical vapor deposition cycles", 3rd Hellenic Symposium of Porous Materials, CERTH, November 1–2, **2007**, Thessalonica, Greece
 95. E.P. Favvas*, A.A. Sapalidis, G.E. Romanos, K.L. Stefanopoulos, A.Ch. Mitropoulos, E.K. Kargiotis, "Characterization of shale rocks from Cavala gulf", 3rd Hellenic Symposium of Porous Materials, CERTH, November 1–2, **2007**, Thessalonica, Greece
 96. S.F. Nitodas, E.P. Favvas*, G.E. Romanos, A. Vairis, A.Ch. Mitropoulos, "Preparation and characterization of a composite aluminium/silica membrane for gas separation application", 3rd Hellenic Symposium of Porous Materials, CERTH, November 1–2, **2007**, Thessalonica, Greece
 97. E. P. Favvas*, S. K. Papageorgiou, A. A. Sapalidis, G. I. Pilatos, G. E. Romanos, E. P. Kouvelos, A. Ch. Mitropoulos and N. K. Kanellopoulos, "SiC Hollow Fiber Membranes for Gas Separation Applications" 3rd International Workshop on IN-Situ Study and DEvelopment of Processes Involving PORous Solids (INSIDE-PORes), 24 -26th September, **2007**, Alicante, Spain
 98. E.P. Favvas*, S.K. Papageorgiou, A.A. Sapalidis, E.P. Kouvelos, N.K. Kanellopoulos, A.Ch. Mitropoulos, "Preparation and Characterization of hydrogen selective microporous carbon hollow fiber membranes prepared from a commercial BTDA-TDI/MDI co-polyimide", Sixth National Chemical Engineering Conference, May 31– June 2, **2007**, Athens, Greece
 99. A. Labropoulos, G. E. Romanos, G. I. Pilatos, N. K. Kakizis, E. P. Favvas and N. K. Kanellopoulos, "Investigating the evolution of N₂ transport mechanism during the post treatment of silica membranes by application of a cyclic chemical vapor deposition method", Eleventh International Conference on Properties and Phase Equilibria, PPEPPD, May 20 – 25, **2007**, Hersonissos, Crete, Greece
 100. S. Nitodas, E. Favvas*, A. Mitropoulos, N. Kanellopoulos, "Development of a Membrane with Chemical Vapor Deposition for Use in Hydrogen Separation ", Second National Conference on Hydrogen Technologies: "Research – Development – Applications". Hellenic Hydrogen Society, AUTH, CERTH, GSRT, October 20–22, **2005**, Thessalonica, Greece
 101. L.V. Massaras, I.K. Mertzaniides, E.P. Favvas, A.Ch. Mitropoulos, E.K. Kargiotis "Phenomena influencing massive-scale hydraulic fracturing of porous sandstone rock formations", 2^o Hellenic Symposium of Porous Materials, NCSR "Demokritos", 29–30 September **2005**, Athens, Greece
 102. E.P. Favvas*, G.C. Kapantaidakis, A.Ch. Mitropoulos, N.K. Kanellopoulos, "Preparation and Characterization of carbon hollow fiber membranes from Matrimid® 5218 Polyimide precursors", 2nd Hellenic Symposium of Porous Materials, NCSR "Demokritos", September 29–30, **2005**, Athens, Greece
 103. E. P. Favvas*, G. C. Kapantaidakis and N. K. Kanellopoulos, "Effect of carbonization process on the structure and the gas permeation properties of polyimide hollow fiber membranes", Diffusion Fundamentals I, Basic Principles of Theory, Experiment and Application, September 22nd - 24th, **2005**, Leipzig Germany
 104. E.P. Favvas*, G.C. Kapantaidakis, A.Ch. Mitropoulos, N.K. Kanellopoulos, "Preparation and Gas Permeation/Separation study of Matrimid® 5218 Polyimide Hollow Fibers on Industrial Interesting

Gases", Fifth National Chemical Engineering Conference, May 26–28, **2005**, Thessalonica, Greece

105. E.P. Favvas*, G.C. Kapantaidakis, N.K. Kanellopoulos, "*Preparation and Identification of Carbon Hollow Fiber Membranes for Gas Separations and Hydrogen Production Applications* ", First National Conference on Hydrogen Technologies: "*Research – Development – Applications*". Hellenic Hydrogen Society, National and Kapodistrian University of Athens, September 30 - October 2, **2004**, Athens, Greece