



CURRICULUM VITAE  
Dr. Evangelos P. Favvas

PERSONAL INFORMATION

First name / Surname Evangelos P. Favvas

Telephone +30 6932302922

E-mails [e.favvas@inn.demokritos.gr](mailto:e.favvas@inn.demokritos.gr)

[e.favvas@gmail.com](mailto:e.favvas@gmail.com)

Skype [e\\_favvas](#)

Nationality Hellenic

Date of birth 18 January 1978

Gender Male

Work Address Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Aghia Paraskevi, Attica, P.C. 153 41, Greece

Telephone +30 2106503663

FAX +30 2106511766

WORK EXPERIENCE

Dates November 2007 – today

Occupation or position held Research Officer

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 - October 2007

Occupation or position held Research Collaborator

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 2004 – 2007 & 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-TEM)

Name and address of employer Hephaestus Lab., Eastern Macedonia and Thrace Institute of Technology, Cavala, P.C. 654 04, Greece

Type of business or sector Research and Development

Dates 2012 - today

Occupation or position held Visitor Researcher

Main activities and responsibilities Study of the mechanical properties of polymer based nanocomposite materials

Name and address of employer Department of Mechanical Engineering, Crete Institute of Technology, Herakleion, P.C. 710 04, Greece

Type of business or sector Research and Development

## 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»
Level in of international classification	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»
Level in of international classification	7
University	Cavala 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»
Level in of international classification	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 21 International and National research projects (FP6, FP7, Thalys, Marie–Curie, Archimedes, Interreg etc)
- Coordinator of 2 research projects
- Supervising and co-supervising of 11 Master and PhD students
- Member of the editorial board of 2 international Journals
- Guest Editor of Special Issue "*Membranes for Carbon Dioxide Separation/Capture applications*", Journal of Membrane and Separation Technology
- Leader Guest Editor of Special Issue "*Polymeric Membranes: Promising Materials for Gas Separations, Water Treatment and Renewable Energy Processes*", International J. Polymer Science
- 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 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)

PUBLICATIONS IN PEER  
REVIEWED JOURNALS

1. 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.
2. 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.
3. A. Labropoulos, G. E. Romanos, G. I. Pilatos, N. K. Kakizis, E. P. Favvas and N. K. Kanellopoulos, "Investigating the evolution of N<sub>2</sub> 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.
4. S. F. Nitodas, E. P. Favvas, G. E. Romanos, M. A. Papadopoulou, A. Ch. Mitropoulos and N. K. Kanellopoulos "Synthesis and Characterization of Hydrogen Selective Silica-based Membranes", J. of Porous Materials 15, 2008, 551–557.
5. 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.
6. E. P. Favvas\* and A. Ch. Mitropoulos "What is spinodal decomposition?", J. Engin. Sci. Tech. Review 1, 2008, 25–27.
7. 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.
8. E. P. Favvas, A. A. Sapolidis, 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.
9. Sergios K. Papageorgiou\*, Evangelos P. Kouvelos, Evangelos P. Favvas, Andreas A. Sapolidis, George E. Romanos, Fotios K. Katsaros, "Metal carboxylate interactions in metal alginate complexes studied with FTIR spectroscopy", Carbohydrate Research 345, 2010, 469–473.
10. Sergios K. Papageorgiou\*, Evangelos P. Favvas, Andreas A. Sapolidis, 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.
11. 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.
12. 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.
13. S. K. Papageorgiou\*, F. K. Katsaros, E. P. Favvas, G. E. Romanos, C. P. Athanasekou, K. G. Beltsios, O. I. Tziella and P. Falaras\*, "Alginate Fibers as Photocatalyst immobilizing agents applied in hybrid Photocatalytic/Ultrafiltration Water treatment processes", Water Research 46, 2012, 1858–1872.
14. 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<sup>2+</sup> and Cd<sup>2+</sup> ion sorption", Chem. Engin. J. 209, 2012, 537–546.
15. 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.
16. 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, 225–233.
17. 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.
18. Constantinos G. Tsanaktsidis, 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.
19. 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.

20. 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.
21. 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.
22. Sandra M. Miranda, George Em. Romanos\*, Vlassis Likodimos, Rita R.N. Marques, Evangelos P. Favvas, Fotios K. Katsaros, Konstantinos L. Stefanopoulos, Vitor J.P. Vilar, Joaquim L. Faria, Polycarpos Falaras, Adrián M.T. Silva, "Pore structure, interface properties and photocatalytic efficiency of hydration/dehydration derived TiO<sub>2</sub>/CNT composites", *Applied Catalysis B: Environmental*, 147, 2014, 65–81.
23. 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.
24. Constantinos G. Tsanaktsidis, 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.
25. 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.
26. Evangelos P. Favvas\*, Constantinos G. Tsanaktsidis, George T. Tzilantonis, Stavros G. Christidis, "H<sub>2</sub>O 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. Evangelos P. Favvas\*, Evangelos P. Kouvelos, Sergios K. Papageorgiou, Constantinos G. Tsanaktsidis, Athanasios Ch. Mitropoulos "Characterization of natural resin materials using water adsorption and various advanced techniques", *Appl. Phys. A-Mater.* 119, 2015, 735–743.
32. 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.
33. Constantinos G. Tsanaktsidis, Evangelos P. Favvas\*, George T. Tzilantonis, Stavros G. Christidis, Elissavet 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.
34. 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.
35. 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.
36. 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* 2015, accepted, DOI: 10.1016/j.colsurfa.2015.11.062.
37. 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.

38. Evangelos P. Favvas\*, Constantinos G. Tsanaksidis, Andreas A. Sapolidis, George T. Tzilantonis, 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.* **2016**, accepted, DOI: 10.1016/j.micromeso.2016.01.021.
39. Evangelos P. Favvas\*, "*CO<sub>2</sub> permeation behavior through carbon membranes: A short review of the progress during the last decade*" *J. Membr. Separ. Technol.* **2016**, accepted.

361 citations (until January 2016)

h-index: 10

## BOOK CHAPTERS

1. Evangelos P. Favvas\* and Sergios K. Papageorgiou, Chapter 11: "*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.
2. Evangelos P. Favvas, Chapter: "*Nanomaterials and their applicability as membranes' fillers*", in book entitled "*Innovations in Nanomaterials*", ISBN: 978-1-63483-548-0, Nova Science Publishers, Inc., 2015, New York, U.S.A.

## PATENTS

1. A. Ch. Mitropoulos, E. P. Favvas, K. L. Stefanopoulos, "*A new method and device for nanobubbles production into porous media*", I.P.O. (Hellenic Industrial Property Organization), Reg. No: 1008522 (2015).

## CONFERENCES

1. 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
2. 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
3. E.P. Favvas\*, G.C. Kapantaidakis, 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 22–24, 2005, Leipzig Germany
4. 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*", 2o Hellenic Symposium of Porous Materials, NCSR "Demokritos", September 29–30, 2005, Athens, Greece
5. L.V. Massaras, I.K. Mertzaniades, E.P. Favvas, A.Ch. Mitropoulos, E.K. Kargiotis "*Phenomena influencing massive-scale hydraulic fracturing of porous sandstone rock formations*", 2o Hellenic Symposium of Porous Materials, NCSR "Demokritos", 29–30 September 2005, Athens, Greece
6. 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
7. A. Labropoulos, G.E. Romanos, G.I. Pilatos, N.K. Kakizis, E.P. Favvas, N.K. Kanellopoulos, "*Investigating the evolution of N<sub>2</sub> 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
8. E.P. Favvas\*, S.K. Papageorgiou, A.A. Sapolidis, 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
9. E.P. Favvas\*, S.K. Papageorgiou, A.A. Sapolidis, G.I. Pilatos, G.E. Romanos, E.P. Kouvelos, A.Ch. Mitropoulos, N.K. Kanellopoulos, "*SiC Hollow Fiber Membranes for Gas Separation Applications*" 3<sup>rd</sup> International Workshop on IN-Situ Study and DEvelopment of Processes

Involving PORous Solids (INSIDE-PORes), September 24–26, 2007, ALICANTE, SPAIN

10. 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", 3<sup>rd</sup> Hellenic Symposium of Porous Materials, CERTH, November 1–2, 2007, Thessalonica, Greece
11. 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", 3<sup>rd</sup> Hellenic Symposium of Porous Materials, CERTH, November 1–2, 2007, Thessalonica, Greece
12. 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 manifold chemical vapor deposition cycles", 3<sup>rd</sup> Hellenic Symposium of Porous Materials, CERTH, November 1–2, 2007, Thessalonica, Greece
13. L.V. Massaras, I.K. Mertzani, E.P. Favvas, A.Ch. Mitropoulos, E.K. Kargiotis, "Fracture Entry Friction and Dilatancy: Major Advances on the Design, Placement and Analysis of Propped Hydrofrac Treatments", STIMtech 2008 Conference, February 2008, Mumbai, India
14. 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", 1<sup>st</sup> International Workshop NAPEN 2008 "NANOPorous materials in ENergy and ENVIRONMENT", October 12–15, 2008, Chania – Crete, Greece
15. E.P. Favvas\*, K.L. Stefanopoulos, N.K. Kanellopoulos, A.Ch. Mitropoulos, "Characterization of carbon membranes using benzene adsorption in conjunction with SAXS" 4<sup>th</sup> Panellinic Symposium of Porous Materials, FORTH/ICE-HT & University of Patras, October 22–23 2009, Patra, Greece
16. N. Heliopoulos, E. Favvas, S. Papageorgiou, D. Petridis, N. Kanellopoulos, "Study of the effect of magnetic field on gas separation performance of magnetic nanocomposite polymeric and carbon hollow fiber membranes", 8<sup>th</sup> Hellenic Polymer Society Symposium, October 24–29, 2010, Hersonissos, Crete
17. E.P. Favvas\*, N.S. Heliopoulos, S.K. Papageorgiou, F.K. Katsaros, A.Ch. Mitropoulos, N.K. Kanellopoulos, "The pyrolysis conditions effect on structure and properties of P84 based carbon hollow fiber membranes", 9<sup>th</sup> International Symposium on the Characterisation of Porous Solids - COPS IX, 5–9 June, 2011, Dresden, Germany
18. S.K. Papageorgiou, E.P. Favvas\*, P.G. Tsiou, F.K. Katsaros, N.K. Kanellopoulos, "Preparation and characterization of alginate based porous hollow fiber membranes", 9<sup>th</sup> International Symposium on the Characterisation of Porous Solids - COPS IX, 5–9 June, 2011, Dresden, Germany
19. E.P. Favvas\*, K.L. Stefanopoulos, A.Ch. Mitropoulos, N.K. Kanellopoulos, "Structural characterization of microporous carbon hollow fiber membranes by in situ SAXS during C<sub>6</sub>H<sub>6</sub> adsorption", 9<sup>th</sup> International Symposium on the Characterisation of Porous Solids - COPS IX, 5–9 June, 2011, Dresden, Germany
20. 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", 9<sup>th</sup> International Symposium on the Characterisation of Porous Solids - COPS IX, 5–9 June, 2011, Dresden, Germany
21. E.P. Favvas\*, K.L. Stefanopoulos, A.Ch. Mitropoulos, "A new simple equation for the mesopores size calculation" 5<sup>o</sup> Panellinic Symposium of Porous Materials, University of Crete, 30 June – 1 July 2011, Heracleio, Crete, Greece
22. K. Tsanakidis, S. Christidis, E. Favvas and G. Tzilantonis, "Development of hydrophilic polymers for the fuel properties improvement" 21<sup>o</sup> Panellinic Conference in Chemistry, 9–12 December 2011, Thessalonica, Greece
23. E.P. Favvas\*, K.L. Stefanopoulos, S.K. Papageorgiou, J.W. Nolan, A.Ch. Mitropoulos, "In situ small angle x-ray scattering and benzene adsorption on polymer-based carbon hollow fiber membranes", Eighth International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids, 27<sup>th</sup>–31<sup>st</sup> August, 2012, Krakow, Poland
24. E.P. Favvas\*, K.L. Stefanopoulos, A. Vairis, J.W. Nolan, A.Ch. Mitropoulos, "CH<sub>2</sub>Br<sub>2</sub> in situ adsorption with saxs performance on mesoporous SBA-15 and MCM-41 ordered silica materials", Eighth International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids, 27<sup>th</sup>–31<sup>st</sup> August, 2012, Krakow, Poland
25. S.K. Papageorgiou, F.K. Katsaros, E.P. Favvas, G.Em. Romanos,; N.K. Kanellopoulos, P.Falaras, "Alginate/TiO<sub>2</sub> Photocatalytic Hollow Fiber Membranes for NO Decomposition in Flow

*Through Membrane Reaction Applications*", 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications - SPEA7, 17<sup>th</sup>–20<sup>th</sup> June, Proc. pp 454-455, 2012, Porto, Portugal

26. 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*", 11<sup>th</sup> International Conference on the Fundamentals of Adsorption (FOA), 19<sup>th</sup>–24<sup>th</sup> May, 2013, Baltimore, USA
27. 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*", 11<sup>th</sup> International Conference on the Fundamentals of Adsorption (FOA), 19<sup>th</sup>–24<sup>th</sup> May, 2013, Baltimore, USA
28. 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, 5<sup>th</sup>–9<sup>th</sup> June, 2013, Baku Azerbaijan
29. E.P. Favvas\*, K.L. Stefanopoulos, S.F. Nitodas, A.A. Stefopoulos, A.Ch. Mitropoulos, "*Morphology of carbon nanotubes dispersed in solvents and into polymer and carbon membranes: A SANS study*", International Conference on Neutron Scattering, 8<sup>th</sup>–12<sup>th</sup> July, 2013, Edinburgh, UK
30. 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*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
31. 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*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
32. E.P. Favvas\*, K.L. Stefanopoulos, N.Ch. Vordos, A.Ch. Mitropoulos, "*Dibromomethane adsorption on mcm-41 by in situ saxs*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
33. 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*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
34. 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", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
35. 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*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
36. D.A. Gkika, P. Cool, E.F. Vansant, J.W. Nolan, N. Vordos, E.P. Favvas, A.Ch. Mitropoulos, "*How much do nanomaterials cost?*", 6<sup>th</sup> Panhellenic Conference of Porous Materials, 9<sup>th</sup>–10<sup>th</sup> September, 2013, Cavala, Greece
37. A. Scaltsoyiannes, C. Tsanaksidis, 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<sup>o</sup> Conference of the Hellenic Forestry Society, 6<sup>th</sup>–9<sup>th</sup> October, 2013, Thessalonica, Greece
38. 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, 15<sup>th</sup>–21<sup>st</sup> November, 2013, San Diego – CA, USA.
39. Evangelos P. Favvas\*, Athanasios Ch. Mitropoulos, Nick K. Kanellopoulos, "*CO<sub>2</sub> permeability through carbon hollow fiber membranes. From atmospheric pressure up to 56 bar*", IICBE, 17<sup>th</sup> – 18<sup>th</sup> March, 2014, Dubai, United Arab Emirates.
40. E. P. Favvas\*, K. L. Stefanopoulos, J. W. Nolan, A. Ch. Mitropoulos, "*Mixed Matrices MWCNTs/Carbon Hollow Fiber Membranes: Preparation and Characterization*", COPS-X, 11<sup>th</sup> – 14<sup>th</sup> May, 2014, Granada, Spain.
41. E. P. Favvas\*, K. L. Stefanopoulos, N. Ch. Vordos, A. Ch. Mitropoulos, "*In situ CH<sub>2</sub>Br<sub>2</sub> adsorption and SAXS measurements in MCM-41*", COPS-X, 11<sup>th</sup> – 14<sup>th</sup> May, 2014, Granada, Spain.

42. E. P. Favvas\*, Athanasios Ch. Mitropoulos, Nick K. Kanellopoulos, "*Helium recovery from natural gas sources using carbon hollow fiber membrane*", 13<sup>th</sup> International Conference on Inorganic Membranes, 6<sup>th</sup> – 9<sup>th</sup> July, 2014, Brisbane, Australia.
43. Z. S. Metaxa, E. P. Favvas, C. Mercader, F. Poulin, N. D. Alexopoulos, "*A preliminary study on the development of graphene/cement based nanocomposites*", 39<sup>th</sup> Solid Mechanics Conference (SOLMECH 2014), 1<sup>st</sup> – 5<sup>th</sup> September 2014, Zakopane, Poland.
44. 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*", 30<sup>th</sup> Panhellenic Conference on Solid-State Physics and Materials Science, 21<sup>st</sup> – 24<sup>th</sup>, September 2014, Heraklion, Crete, Greece.
45. A. N. Talarou , Z. S. Metaxa, N. D. Alexopoulos, E. P. Favvas, C. Mercader, "*Effective dispersion of nano graphene platelets in cementitious materials*", 30<sup>th</sup> Panhellenic Conference on Solid-State Physics and Materials Science, 21<sup>st</sup> – 24<sup>th</sup>, September 2014, Heraklion, Crete, Greece.
46. 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 30<sup>th</sup> - April 1<sup>st</sup> 2015, Belgrade, Serbia.
47. 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, 13<sup>th</sup> – 15<sup>th</sup> April 2015, Istanbul, Turkey.
48. 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*", 7<sup>th</sup> International Workshop '*Characterization of Porous Materials: from Angstroms to Millimeters*' (CPM-7), 3<sup>rd</sup> – 6<sup>th</sup> May 2015, Delray Beach, Florida, USA.
49. C. Tsanaktsidis, E. P. Favvas, A. Scaltsoyiannes, S. Christidis, G. Tzilantonis, A. Scaltsoyiannes, "*Development of a new fuel using natural products*" 12<sup>o</sup> Conference of Chemistry, Greece-Cyprus, 8<sup>th</sup>–10<sup>th</sup> May 2015, Thessaloniki, Greece.
50. 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*", 4<sup>th</sup> International Symposium Frontiers in Polymer Science, 20 – 22 May 2015, Riva del Grada, Italy.
51. 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*", 5<sup>th</sup> International Colloids Conference, 21<sup>st</sup> - 24<sup>th</sup> June 2015, Amsterdam, The Netherlands.
52. A. Ch. Mitropoulos, E. P. Favvas\*, K. L. Stefanopoulos, "*A study on theorem-6 of Everett's domain theory*", 5<sup>th</sup> International Colloids Conference, 21<sup>st</sup> - 24<sup>th</sup> June 2015, Amsterdam, The Netherlands.
53. Iona Lazaridou, Nikolaos Alexopoulos, Evangelos Favvas, Markos Petousis, Achilles Vairis, "*Fatigue mechanical behavior of MWCNT reinforced GFRP composites under the presence of artificial defects*" 20<sup>th</sup> International Conference on Composite Materials (ICCM20), 19<sup>th</sup> – 24<sup>th</sup> July 2015, Copenhagen, Denmark.
54. 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 H<sub>2</sub> Production and CO<sub>2</sub> Capture*" 4<sup>th</sup> Conference on Carbon Dioxide as Feedstock for Fuels, Chemistry and Polymers, 29<sup>th</sup> – 30<sup>rd</sup> September 2015, Haus der Technik (HDT), Essen, Germany.
55. 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, 05<sup>th</sup> – 07<sup>th</sup> November 2015, Athens, Greece.