

**GEORGIOS KARANIKOLOS***Associate Professor*

Department of Chemical Engineering

University of Patras

26504 Patras, Greece

E-mail: [karanikolos@chemeng.upatras.gr](mailto:karanikolos@chemeng.upatras.gr)**EDUCATION**

- **Ph.D:** Department of Chemical & Biological Engineering, State University of New York at Buffalo (UB), USA (2005).
- **Diploma in Engineering:** Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece (2000).

**PROFESSIONAL EXPERIENCE**

- **Associate Professor**, Department of Chemical Engineering, University of Patras (2022 – present)
- **Associate Professor**, Department of Chemical Engineering, Khalifa University (KU), (2019 – 2022)
- **Assistant Professor**, Department of Chemical Engineering, Khalifa University, (2017 – 2019)
- **Assistant Professor**, Department of Chemical Engineering, The Petroleum Institute (PI), (2013 – 2017)
- **Adjunct Instructor**, Department of Physics, Chemistry, and Materials Technology, Piraeus Institute of Technology, Greece (2008-2013)
- **Marie Curie Fellow**, Institute of Nanoscience & Nanotechnology (previously Institute of Physical Chemistry), Demokritos National Research Center (2007-2012)
- **Post-Doctoral Research Associate**, Department of Chemical Engineering & Materials Science, University of Minnesota (2005-2006). Group of Prof. Michael Tsapatsis.

**PRIZES AND AWARDS**

- **9<sup>th</sup> UAE Undergraduate Research Competition Award (Chemical Engineering Category)**. “Design of Membrane-based process for Energy-Efficient Ethane/Ethylene Separation”, Abu Dhabi University, May 26<sup>th</sup>, 2022. Supervised team of five KU undergraduate students (senior design project).
- **Faculty Research Excellence Award**, Khalifa University, **Awarded to one faculty per rank for the whole College of Engineering** (2019).
- **ADEK Award for Research Excellence 2018**, Abu Dhabi Department of Education and Knowledge.
- **Best Instructor Award**, Imtinan 2017, Chemical Engineering department, PI/KU.
- **Best oral presentation**, Jeewan Pokhrel, Nidhika Bhoria, Stavroula Anastasiou, Suresh Kuppireddy, C. S. Kannan, George Romanos, Georgios N. Karanikolos, “Growth and functionalization of metal organic frameworks (MOFs) and MOF composites for CO<sub>2</sub> capture”, 2017 PI R&D Conference and Exhibition, Abu Dhabi, March 19-20, 2017
- **5<sup>th</sup> Engineering Students Renewable Energy Competition 2014 (ESREC’2014) Award**. “Conversion of Waste Cooking Oil into Biodiesel using Heterogeneous Catalysts”, UAE University, Award Date: May 3<sup>rd</sup>, 2014. Supervised team of three PI undergraduate students (senior design project).
- **Marie Curie European Reintegration Fellowship**, 2007-2012
- **Best Poster Awards:**
  - Materials Research Society (MRS) Spring Meeting, San Francisco, CA, March 31, 2005,
  - 5<sup>th</sup> International Zeolite Membrane Meeting (IZMM-5), Loutraki, Greece, May 23-26, 2010,
  - 1<sup>st</sup> International Congress on Materials and Renewable Energy (MRE2013), Athens, July 1-3 2013
- **First (2004) and Third (2002) Place UB Award for Excellence in Graduate Student Research**
- **Graduate Tuition Scholarship**, Department of Chemical Engineering, UB, Sep. 2000 – Sep. 2005.
- **Excellent Undergraduate Performance Award**, (3<sup>rd</sup> among 120 students), National Scholarships Institution, Greece, 1995-96.

## TEACHING ACTIVITIES

<b>2022 - present</b>	Associate Professor, Department of Chemical Engineering, University of Patras, Greece <b>Courses:</b> Advanced Chemical Engineering Thermodynamics (PhD program), Introduction to Chemical Engineering
<b>2013-2022</b>	Associate and Assistant Professor, Department of Chemical Engineering, Khalifa University (KU), and Petroleum Institute, UAE <b>Courses:</b> Industrial Catalysis, Applied Nanotechnology (PhD), Fundamentals of Nanotechnology, Heat transfer, Colloids and Interface Science (MSc and PhD level), Principles of Chemical Engineering, PhD Research Methods, Chemical Engineering Thermodynamics
<b>2008 – 2013</b>	Adjunct Instructor, Department of Physics, Chemistry, and Materials Technology, University of West Attica, Greece <b>Courses:</b> Chemical Technology, Environmental Chemistry, Physical Chemistry

## RESEARCH EXPERTISE

- Separation and Purification Processes
- Heterogeneous Catalysis
- CO<sub>2</sub> capture
- Hydrogen storage
- Water treatment
- Porous materials and membranes including zeolites, metal-organic frameworks (MOFs), and carbon/graphitic nanostructures.

## PARTICIPATION IN RESEARCH PROJECTS

6 projects as coordinator, 5 projects as co-I, 2 projects as principal investigator. Total funding: 8 million USD.

## SUPERVISION OF GRADUATE STUDENTS & RESEARCH FELLOWS

5 post-docs, 5 PhD students (main advisor), 6 MSc students (main advisor), 6 Research Associates (MSc holders), 7 Research Assistants (BSc holders). Supervised 10 senior design projects. Committee member/examiner of >40 PhD and MSc student theses.

## PUBLICATIONS

### Journal Publications

1. Gebremariam, S.K., Dumée, L.F., Llewellyn, P.L., Alwahedi, Y.F., Karanikolos, G.N., [\*“Metal-organic framework hybrid adsorbents for carbon capture - A review”\*](#), **Journal of Environmental Chemical Engineering**, 11(2), 109291 (2023)
2. H. Al Araj, D. Bahamon, K.S.K. Reddy, L.F. Vega, G.N. Karanikolos, [\*“A Systematic Approach to Understanding and Optimizing the CO<sub>2</sub> Capture Performance of Triamine-Functionalized Mesoporous Silica with Amine Blends Using Molecular Simulations”\*](#), **J. Phys. Chem. C**, 127, 15, 7410 (2023)
3. K.S.K. Reddy, A.M. Varghese, A.E. Ogungbenro, G.N. Karanikolos, [\*“Aminosilane-Modified Ordered Hierarchical Nanostructured Silica for Highly-Selective Carbon Dioxide Capture at Low Pressure”\*](#), **ACS Applied Engineering Materials**, 1, 2, 720 (2023)
4. SN Abd Elwaddood, KSK Reddy, Y Al Wahedi, A Al Alili, ASF Farinha, G-J Witkamp, LF Dumée, GN Karanikolos, [\*“Hybrid salt-enriched micro-sorbents for atmospheric water sorption”\*](#), **Journal of Water Process Engineering** 52, 103560 (2023)
5. Gabriele Scandura, Sana Eid, Ali A Alnajjar, Twinkle Paul, Georgios N Karanikolos, Dinesh Shetty, Khalid Omer, Rami Alqerem, Alaa Juma, Huanting Wang, Hassan A Arafat, Ludovic F Dumée, [\*“Photo-responsive metal-organic frameworks—design strategies and emerging applications in photocatalysis and adsorption”\*](#), **Mater. Adv.**, 4, 1258 (2023)
6. Ouda, M., Banat, F., Hasan, S.W., Karanikolos, G.N., [\*“Recent advances on nanotechnology-driven strategies for remediation of microplastics and nanoplastics from aqueous environments”\*](#), **Journal of Water Process Engineering**, 52, 103543 (2023)

7. Scandura, Gabrielea, Kumari, Priyanka, Palmisano, Giovanni, Karanikolos, Georgios N., Orwa, Juliuse, Dumée, Ludovic F., "[Nanoporous Dealloyed Metal Materials Processing and Applications -A Review](#)", **Industrial and Engineering Chemistry Research**, 62(4), 1736–1763 (2023)
8. Aibobek Seitak, Aya Shanti, Kenana Al Adem, Nouran Farid, Shaohong Luo, Javad Iskandarov, Georgios N. Karanikolos, Kin Liao, Vincent Chan, Sungmun Lee, "[2D MXenes for controlled releases of therapeutic proteins](#)", **Journal of Biomedical Materials Research Part A**, 111(4), 514–52 (2023)
9. G.D.J. Guerrero Peña, K.S.K. Reddy, A.M. Varghese, Azhagapillai Prabhu, Aasif A. Dabbawala, Kyriaki Polychronopoulou, Mark A. Baker, Dalaver Anjum, Gobind Das, Cyril Aubry, Mohamed I. Hassan Ali, G. N. Karanikolos, A. Raj, M. Elkadi, "[Carbon dioxide adsorbents from flame-made diesel soot nanoparticles](#)", **Science of the Total Environment**, 859, 160140 (2023).
10. Jena, K.K., Suresh Kumar Reddy, K., Karanikolos, G.N., Choi, D.S., "[L-Cysteine and silver nitrate based metal sulfide and Zeolite-Y nano adsorbent for efficient removal of mercury \(II\) ion from wastewater](#)", **Applied Surface Science**, 611, 155777 (2023).
11. Javad Iskandarov, George S. Fanourgakis, Shehzad Ahmed, Waleed Alameri, George E. Froudakis, Georgios N. Karanikolos, "[Data-driven prediction of in situ CO<sub>2</sub> foam strength for enhanced oil recovery and carbon sequestration](#)", **RSC Advances**, 12, 35703 (2022).
12. Khaleel, M., He, Z., Karanikolos, G.N., Feng, X., Wang, K., "[The concentration dependent permeation properties of binary CO<sub>2</sub> gas mixtures through carbon molecular sieve membrane](#)", **International Journal of Greenhouse Gas Control**, 121, 103778 (2022)
13. Essa Ansari, Nicolas Lopez Ferber, Tamara Milošević, Jose Barron, Georgios N Karanikolos, Faisal AlMarzooqi, Ludovic F Dumée, Nicolas Calvet, "[Atmospheric water generation in arid regions—A perspective on deployment challenges for the Middle East](#)", **Journal of Water Process Engineering** 49, 103163 (2022)
14. SN Abd Elwaddood, LF Dumée, Y Al Wahedi, A Al Alili, GN Karanikolos, "[Aluminophosphate-Based adsorbents for atmospheric water generation](#)", **Journal of Water Process Engineering** 49, 103099 (2022)
15. Maria Kapsi, Charitomeni M. Veziri, George Pilatos, Georgios N. Karanikolos, George E. Romanos, "[Zeolite-templated sub-nanometer carbon nanotube arrays and membranes for hydrogen storage and separation](#)", **International Journal of Hydrogen Energy**, 47(87), 36850–36872 (2022).
16. Anish Mathai Varghese, K. Suresh Kumar Reddy, and Georgios N. Karanikolos, "[An In-Situ-Grown Cu-BTC Metal–Organic Framework / Graphene Oxide Hybrid Adsorbent for Selective Hydrogen Storage at Ambient Temperature](#)", **Ind. Eng. Chem. Res.** 61, 18, 6200 (2022).
17. Rangaraj, V.M., Reddy, K.S.K., Karanikolos, G.N., "[Ionothermal synthesis of phosphonitrilic-core covalent triazine frameworks for carbon dioxide capture](#)" **Chemical Engineering Journal**, 429, 132160 (2022).
18. K.L. Stefanopoulos, E.P. Favvas, G.N. Karanikolos, W. Alameri, V.C. Kelessidis, T.G.A. Youngs, D.T. Bowron. "[Monitoring the CO<sub>2</sub> Enhanced Oil Recovery Process at the Nanoscale: An In Situ Neutron Scattering Study](#)", **Energy Advances**, 1, 67 (2022).
19. Mavukkandy, M.O., Ibrahim, Y., Almarzooqi, F., Naddeo, V., Karanikolos, G.N., Alhseinat, E., Banat, F., Hasan, S.W. "[Synthesis of polydopamine coated tungsten oxide@poly\(vinylidene fluoride-co-hexafluoropropylene\) electrospun nanofibers as multifunctional membranes for water applications](#)", **Chemical Engineering Journal**, 427, 131021 (2022).
20. Agbaje, T.A., Vega, L.F., Khaleel, M., Wang, K., Karanikolos, G.N., "[Membranes and adsorbents in separation of C<sub>4</sub> hydrocarbons: A review and the definition of the current upper bounds](#)", **Separation and Purification Technology**, 278, 119530 (2021).
21. Agbaje, T.A., Singh, S., Reddy, K.S.K., Polychronopoulou, K., Vega, L.F., Khaleel, M., Wang, K., Karanikolos, G.N., "[Salt-free synthesis of Cu-BTC metal-organic framework exhibiting mesoporosity and enhanced carbon dioxide adsorption](#)", **Microporous and Mesoporous Materials**, 324, 111265 (2021)
22. Aasif A. Dabbawala, K. Suresh Kumar Reddy, Hemant Mittal, Yasser Al Wahedi, Balasubramanian V. Vaithilingam, Georgios N. Karanikolos, Gnana Singaravel, Stephane Morin, Mikael Berthod, Saeed M. Alhassan, "[Water vapor adsorption on metal-exchanged hierarchical porous zeolite-Y](#)", **Microporous and Mesoporous Materials**, 326, 111380 (2021).
23. Singh, S., Varghese, A.M., Reinalda, D., Karanikolos, G.N., "[Graphene - Based membranes for carbon dioxide separation](#)", **Journal of CO<sub>2</sub> Utilization**, 49, 101544 (2021).
24. Salih, H.A., Pokhrel, J., Reinalda, D., AlNashf, I., Khaleel, M., Vega, L.F., Karanikolos, G.N., Abu Zahra, M., "[Hybrid – Slurry/Nanofluid systems as alternative to conventional chemical absorption for carbon dioxide capture: A review](#)", **International Journal of Greenhouse Gas Control**, 110, 103415 (2021)
25. Singh, S., Varghese, A.M., Reddy, K.S.K., Romanos, G.E., Karanikolos, G.N., "[Polysulfone Mixed-Matrix Membranes Comprising Poly\(ethylene glycol\)-Grafted Carbon Nanotubes: Mechanical Properties and CO<sub>2</sub> Separation Performance](#)", **Industrial and Engineering Chemistry Research**, 60(30), 11289 (2021).

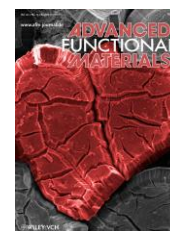
26. Thomou, E., Sakavitsi, V., Angeli, G.K., Spyrou, K., Froudas, K.G., Diamanti, E.K., Romanos, G.E., Karanikolos, G.N., Trikalitis, P. N., Gournis, D., Rudolf, P., "[A diamino-functionalized silsesquioxane pillared graphene oxide for CO<sub>2</sub> capture](#)", **RSC Advances**, 11(23), 13743 (2021).
27. Karanikolos, G.N., Romanos, G.E., Vega, L.F., "[Editorial: Chemical Modification of Adsorbents for Enhanced Carbon Capture Performance](#)", **Frontiers in Chemistry**, 9, 657669 (2021).
28. Varghese, A.M., Reddy, K.S.K., Bhorla, N., Singh, S., Pokhrel, J., Karanikolos, G.N., "[Enhancing Effect of UV Activation of Graphene Oxide on Carbon Capture Performance of Metal-Organic Framework/Graphene Oxide Hybrid Adsorbents](#)" **Chemical Engineering Journal**, 420, 12967, (2021).
29. Fadi Dawaymeh, Omer Elmutasim, Dina Gaber, Safa Gaber, K. Suresh Kumar Reddy, Georgia Basina, Kyriaki Polychronopoulou, Yasser Al Wahedi, Georgios N. Karanikolos, "[Metal substitution effects of aluminophosphate AlPO<sub>4-5</sub> as solid acid catalyst for esterification of acetic acid with ethanol](#)", **Molecular Catalysis**, 501, 111371 (2021).
30. Anish Varghese, K. Suresh Kumar Reddy, Swati Singh, Georgios N. Karanikolos, "[Performance enhancement of CO<sub>2</sub> capture adsorbents by UV treatment: The case of self-supported graphene oxide foam](#)", **Chemical Engineering Journal**, 386, 124022 (2020).
31. A. Tabish, A., Varghese, M.A. Wahab, G. N. Karanikolos, "[Perovskites in the energy grid and CO<sub>2</sub> conversion: Current context and future directions](#)", **Catalysts** 10(1), 95 (2020).
32. A.M. Varghese, G.N. Karanikolos, "[CO<sub>2</sub> capture adsorbents functionalized by amine-bearing polymers: A review](#)", **International Journal of Greenhouse Gas Control** 96, 103005 (2020).
33. S.A. Gaber, F. Dawaymeh, D.A. Gaber, G. Basina, I. Ismail, A. Tharakshmy, A. AlYafeai, A. Subrati, G.N. Karanikolos, S. Al Hashimi, Y.F Al Wahedi, "[Combined DFT and experimental investigation on ion isomorphic substitution of aluminophosphate microporous crystals](#)", **Microporous & Mesoporous Materials**, 294,109859 (2020).
34. Ahmad Soliman, Nahla AlAmoodi, Georgios N. Karanikolos, Charalabos C. Doumanidis, K. Polychronopoulou, "[A Review on New 3-D Printed Materials' Geometries for Catalysis and Adsorption: Paradigms from Reforming Reactions and CO<sub>2</sub> Capture](#)", **Nanomaterials**, 10, (2020).
35. N. Bhorla, G. Basina, J. Pokhrel, K.S.K. Reddy, S. Anastasiou, V. Balasubramanian, Y.F. AlWahedi, G.N. Karanikolos, "[Functionalization effects on HKUST-1 and HKUST-1/graphene oxide hybrid adsorbents for hydrogen sulfide removal](#)", **Journal of Hazardous Materials**, 122565 (2020).
36. V.M. Rangaraj, M.A. Wahab, K.S.K. Reddy, G. Kakosimos, O. Abdalla, E.P. Favvas, D. Reinalda, F. Geuzebroek, A. Abdala, G.N. Karanikolos. "[Metal Organic Framework—Based Mixed Matrix Membranes for Carbon Dioxide Separation: Recent Advances and Future Directions](#)", **Frontiers in Chemistry**, 8, 534 (2020).
37. Moritz C. Schlegel, Veronika Grzimek, Gerrit Günther, Roman Svetogorov, Charitomeni M. Veziri, Maria Kapsi, Georgios N. Karanikolos, Oleksandr Prokhnenko, Robert Bewley, Margarita Russina, "[Explaining water adsorption in one-dimensional channels in AlPO<sub>4-5</sub> on molecular scale](#)", **Microporous & Mesoporous Materials**, 304, 109201 (2020).
38. A.G. Kontos, G.E. Romanos, C.M. Veziri, A. Gotzias, M.K. Arfanis, E. Kouvelos, V. Likodimos, G.N. Karanikolos, P. Falaras, "[Correlating vibrational properties with temperature and pressure dependent CO<sub>2</sub> adsorption in zeolitic imidazolate frameworks](#)", **Applied Surface Science** 529, 147058 (2020).
39. A. Papageorgiou, K. Reddy, D. Karonis, D. Reinalda, Y. Al Wahedi, G.N. Karanikolos, "[Morphology, Activation, and Metal Substitution Effects of AlPO<sub>4-5</sub> for CO<sub>2</sub> Pressure Swing Adsorption](#)", **Frontiers in Chemistry** 8, 875 (2020).
40. O. Elmutasim, G. Basina, D. Al Shami, D. Gaber, S. Gaber, G.N. Karanikolos, Y. Al Wahedi, "[On the impact of copper local environment on hydrogen sulfide adsorption within microporous AlPO<sub>4-5</sub>](#)", **Journal of Environmental Chemical Engineering** 8, 104245 (2020).
41. N. Arora, K. Thangavelu, G.N. Karanikolos, "[Bimetallic Nanoparticles for Antimicrobial Applications](#)" **Frontiers in Chemistry** 8, 412 (2020).
42. Margarita Russina, Gerrit Günther, Veronika Grzimek, Moritz C. Schlegel, Charitomeni M. Veziri, Georgios N. Karanikolos, Takeshi Yamada, Ferenc Mezei, "[Nanoscale Dynamics and Transport in Highly Ordered Low-Dimensional Water](#)", **Journal of Physical Chemistry Letters**, 10(20), 6339 (2019).
43. Evangelos P. Favvas, Nikolaos S. Heliopoulos, Dionysios S. Karousos, Eamonn Devlin, 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](#)", **Materials Chemistry & Physics**, 223, 220-229 (2019).
44. Benjamin Kueh, Maria Kapsi, Charitomeni Veziri, Chrysoula Athanasekou, George Pilatos, K. Suresh Kumar Reddy, Abhijeet Raj, Georgios N. Karanikolos, "[Asphaltene-Derived Activated Carbon and Carbon Nanotube Membranes for CO<sub>2</sub> Separation](#)", **Energy & Fuels**, 32 (11), 11718–11730, (2018).

45. J. Pokhrel, N. Bhorla, S. Anastasiou, T. Tsoufis, D. Gournis, G. Romanos, G. N. Karanikolos, "[CO<sub>2</sub> Adsorption Behavior of Amine-Functionalized ZIF-8, Graphene Oxide, and ZIF-8/Graphene Oxide Composites under Dry and Wet Conditions](#)", **Microporous & Mesoporous Materials**, 267, 53-67 (2018).
46. G. Basina, D. AlShami, K. Polychronopoulou, V. Tzitzios, V. Balasubramanian, F. Dawaymeh, G.N. Karanikolos, Y. Al Wahedi, "[Hierarchical AlPO<sub>4</sub>-5 and SAPO-5 microporous molecular sieves with mesoporous connectivity for water sorption applications](#)", **Surface and Coatings Technology**, 353, 378-386 (2018).
47. Anna Perdikaki, Angeliki Galeou, George Pilatos, Anastasia Prombona, and Georgios N. Karanikolos, "[Ion-based Metal/Graphene Antibacterial Agents Comprising of mono-Ionic and bi-Ionic Silver and Copper Species](#)", **Langmuir**, 34, 11156–11166 (2018).
48. S. Anastasiou, N. Bhorla J. Pokhrel K. Suresh Kumar Reddy, C. Srinivasakannan, K. Wang, G. N. Karanikolos, "[Metal-organic framework/graphene oxide composite fillers in mixed-matrix membranes for CO<sub>2</sub> separation](#)", **Materials Chemistry & Physics**, 212, 513-522 (2018).
49. J. Pokhrel, N. Bhorla, Chao Wu, K. Suresh Kumar Reddy, Haris Margetis, Stavroula Anastasiou, Gigi George, Vikas Mittal, George Romanos, Dimitrios Karonis, Georgios N. Karanikolos, "[Cu- and Zr-based Metal Organic Frameworks and their Composites with Graphene Oxide for Capture of Acid Gases at Ambient Temperature](#)", **J. Solid State Chem.**, 266, 233-243, (2018).
50. Anna Perdikaki, Angeliki Galeou, George Pilatos, Ioannis Karatasios, Nick K. Kanellopoulos, Anastasia Prombona, Georgios N. Karanikolos, "[Ag and Cu Monometallic and Ag/Cu Bimetallic Nanoparticle–Graphene Composites with Enhanced Antibacterial Performance](#)", **ACS Appl. Mater. Interfaces**, 8, 27498–27510, (2016).
- Featured in [ChemistryViews®](#) highlights of Wiley's
51. A. V. Perdikaki, A. I. Labropoulos, E. Siranidi, I. Karatasios, N.K. Kanellopoulos, N. Boukos, P. Falaras, G. N. Karanikolos, G. E. Romanos, "[Efficient CO oxidation in an ionic liquid-modified, Au nanoparticle-loaded membrane contactor](#)", **Chemical Engineering Journal**, 305, 79–91 (2016).
52. G. Pilatos, A. Perdikaki, A. Sapalidis, G. S. Pappas, T. Giannakopoulou, D. Tsoutsou, E. Xenogiannopoulou, N. Boukos, A. Dimoulas, C. Trapalis, N. K. Kanellopoulos, G. N. Karanikolos, "[Graphene by one-step CVD from ferrocene vapors: Properties and electrochemical evaluation](#)", **J. Applied Physics**, 119, 064303 (2016).
53. A. Labropoulos, C. Veziri, M. Kapsi, G. Pilatos, V. Likodimos, M. Tsapatsis, Nick K. Kanellopoulos, G. E. Romanos, and G. N. Karanikolos, "[Carbon Nanotube Selective Membranes with Subnanometer, Vertically Aligned Pores, and Enhanced Gas Transport Properties](#)", **Chem. Mater.**, 27, 8198 (2015).
54. G. Pilatos, E. C. Vermisoglou, A. Perdikaki, E. Devlin, G. S. Pappas, G. E. Romanos, N. Boukos, T. Giannakopoulou, C. Trapalis, N. K. Kanellopoulos, and G. N. Karanikolos, "[One-step, in situ growth of unmodified graphene - magnetic nanostructured composites](#)", **Carbon**, 66, 467 (2014).
55. A. G. Kontos, V. Likodimos, C. M. Veziri, E. Kouvelos, N. Moustakas, G. N. Karanikolos, G. E. Romanos, and P. Falaras, "[CO<sub>2</sub> Captured in Zeolitic Imidazolate Frameworks: Raman Spectroscopic Analysis of Uptake and Host-Guest Interactions](#)" **ChemSusChem**, 7, 1696 (2014).
56. O. Tziaila, Ch. Veziri, X. Papatryfon, K.G. Beltsios, A. Labropoulos, B. Iliev, G. Adamova, T.J.S. Schubert, M.C. Kroon, M. Francisco, L.F. Zubeir, G.E. Romanos, G. N. Karanikolos, "[Zeolite Imidazolate Framework - Ionic Liquid Hybrid Membranes for Highly Selective CO<sub>2</sub> Separation](#)", **J. Phys. Chem. C**, 117, 18434 (2013).
57. A. V. Perdikaki, P. Tsitoura, E. C. Vermisoglou, N. K. Kanellopoulos, and G. N. Karanikolos, "[Poly\(ethylene oxide\)-b-Poly\(propylene oxide\) Amphiphilic Block Copolymer-Mediated Growth of Silver Nanoparticles and Their Antibacterial Behavior](#)", **Langmuir**, 29, 11479 (2013).
58. J.A. Stoeger, C.M. Veziri, M. Palomino, A. Corma, N.K. Kanellopoulos, M. Tsapatsis, G.N. Karanikolos, "[On Stability and Performance of Highly c-Oriented Columnar AlPO<sub>4</sub>-5 and CoAPO-5 Membranes](#)", **Microporous Mesoporous Mater.**, 147(1), 286 (2012).
59. A. Perdikaki, O. Vangeli, G.N. Karanikolos, K. Stefanopoulos, K. Beltsios, P. Alexandridis, N.K. Kanellopoulos, G. Romanos, "[Ionic Liquid-Modified Porous Materials for Gas Separation and Heterogeneous Catalysis](#)", **J. Phys. Chem. C**, 116 (31), 16398 (2012).
60. Jared A. Stoeger, Miguel Palomino, Kumar Varoon, Xueyi Zhang, G.N. Karanikolos, Avelino Corma, Michael Tsapatsis, "[Oriented CoSAPO-5 Membranes by Microwave-Enhanced Growth on TiO<sub>2</sub>-coated Porous Alumina](#)", **Angew. Chem. Int. Ed.**, 51(10), 2470 (2012).
61. C. Vermisoglou, G.E. Romanos, G.N. Karanikolos, N.K. Kanellopoulos, "[Catalytic NO<sub>x</sub> Removal by Single-Wall Carbon Nanotube-Supported Rh Nanoparticles](#)", **J. Hazard. Mater.**, 194, 144 (2011).

62. E.C. Vermisoglou, G. Pilatos, G.E. Romanos, E. Devlin, N.K. Kanellopoulos, G.N. Karanikolos\*, "[Magnetic Carbon Nanotubes with Particle-free Surfaces and High Drug Loading Capacity](#)", **Nanotechnology**, 22, 355602 (2011).

Downloaded more than **250 times** within 2 months after appearing on the web (top 10% in downloads across **all IOP journals**). Highlighted by nanotechweb.org (<http://nanotechweb.org/cws/article/lab/47102>) as "**Editor's Choice**", and in the leading Greek newspaper "Kathimerini"

([http://news.kathimerini.gr/4dcgi/\\_w\\_articles\\_economy\\_2\\_24/09/2011\\_457103](http://news.kathimerini.gr/4dcgi/_w_articles_economy_2_24/09/2011_457103), <http://www.fee.org.gr/health-news-blog/288-cancer-nanotechnology-chemotherapy.html>).



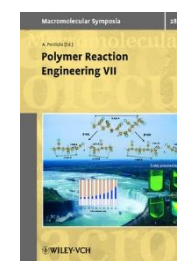
63. G. Pilatos, E.C. Vermisoglou, G.E. Romanos, G.N. Karanikolos, N. Boukos, V. Likodimos, N.K. Kanellopoulos, "[A Closer Look Inside Nanotubes: Pore Structure Evaluation of Anodized Alumina-Templated Carbon Nanotube Membranes through Adsorption and Permeability Studies](#)", **Advanced Functional Materials**, 20(15), 2500 (2010). **On the journal cover.**

64. Ch.M. Veziri, M. Palomino, G.N. Karanikolos, A. Corma, N.K. Kanellopoulos, M. Tsapatsis, "[Towards Sub-Micrometer c-Oriented Nanoporous Films with Unidimensional Pore Network: AFI Film Morphology Control by Precursor Mixture Manipulation](#)", **Chem. Mater.**, 22(4), 1492 (2010).

65. E.C. Vermisoglou, G.N. Karanikolos, G. Pilatos, E. Devlin, G.E. Romanos, Ch.M. Veziri, N.K. Kanellopoulos, "[Aligned Carbon Nanotubes with Ferromagnetic Behavior](#)", **Advanced Materials**, 22(4), 473 (2010).

66. E.C. Vermisoglou, A. Labropoulos, G.E. Romanos, E. Kouvelos, S. Papageorgiou, G.N. Karanikolos, F. Katsaros, N.K. Kanellopoulos, "[Hydrogen Storage in Polymer-Functionalized Pd-Decorated Single Wall Carbon Nanotubes](#)", **J. Nanosci. Nanotechnol.**, 10(9), 5971 (2010).

67. G. N. Karanikolos, P. Alexandridis, T. J. Mountziaris, "[Block Copolymer-Templated Synthesis and Organization of Semiconductor Nanocrystals](#)", **Macromol. Symp.**, 289(1), 43 (2010). **On the journal cover.**

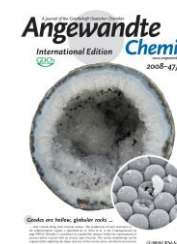


68. Ch.M. Veziri, G.N. Karanikolos, G. Pilatos, E. Vermisoglou, K. Giannakopoulos, Ch. Stogios, N.K. Kanellopoulos, "[Growth and Morphology Manipulation of Carbon Nanostructures on Porous Supports](#)", **Carbon**, 47(9), 2161 (2009).

69. E.C. Vermisoglou, G.E. Romanos, V. Tzitzios, G.N. Karanikolos, V. Akyilas, A. Delimitis, G. Pilatos, N.K. Kanellopoulos, "[Synthesis of Nano-Crystalline Gold-Carbon Nanotube Composites and Evaluation of their Sorption and Catalytic Properties](#)", **Microporous Mesoporous Mater.**, 120(1-2), 122 (2009).

70. A.I. Labropoulos, G.E. Romanos, G.N. Karanikolos, F.K. Katsaros, N.K. Kakizis, N.K. Kanellopoulos, "[Comparative study of the Rate and Locality of Silica Deposition during the CVD Treatment of Porous Supports with TEOS and TMOS](#)", **Microporous Mesoporous Mater.**, 120(1-2), 177 (2009).

71. W.C. Yoo, S. Kumar, Z. Wang, N.S. Ergang, W. Fan, G.N. Karanikolos, A.V. McCormick, R.L. Penn, M. Tsapatsis, A. Stein, "[Nanoscale reactor engineering: Hydrothermal synthesis of uniform zeolite particles in massively parallel reaction chambers](#)", **Angew. Chem. Int. Ed.**, 47(47), 9096 (2008). **On the journal cover.**



72. G.N. Karanikolos, H. García, A. Corma, M. Tsapatsis, "[Growth of AlPO<sub>4</sub>-5 and CoAPO-5 Films from Amorphous Seeds](#)", **Microporous Mesoporous Mater.**, 115(1-2), 11 (2008).

73. E. C. Vermisoglou, G. Pilatos, G. E. Romanos, G. N. Karanikolos, N. Boukos, K. Mertis, N. Kakizis, N. K. Kanellopoulos, "[Synthesis and Characterization of Carbon Nanotube-Modified Anodised Alumina Membranes](#)", **Microporous Mesoporous Mater.**, 110, 25 (2008).

74. G.N. Karanikolos, P. Alexandridis, and T.J. Mountziaris, "[Growth of ZnSe and CdSe Nanostructures in Self-Assembled Block Copolymer-Stabilized Templates](#)", **Mater. Sci. Eng. B**, 152(1-3), 66 (2008).

75. Ch. M. Veziri, G. Pilatos, G.N. Karanikolos, A. Lambropoulos, K. Kordatos, V. Rigopoulou-Kaselouri, N.K. Kanellopoulos, "[Growth and Optimization of Carbon Nanotubes in Activated Carbon by Catalytic Chemical Vapor Deposition](#)", **Microporous Mesoporous Mater.**, 110, 41 (2008).

76. G.N. Karanikolos, J.W. Wydra, J.A. Stoeger, H. García, A. Corma, M. Tsapatsis "[Continuous c-Oriented AlPO<sub>4</sub>-5 Films by Tertiary Growth](#)", **Chem. Mater.**, 19, 792 (2007).

77. G.N. Karanikolos, Nga-Leung (Vera) Law, R. Mallory, A. Petrou, P. Alexandridis, T.J. Mountziaris, "[Water-based Synthesis of ZnSe Nanostructures using Amphiphilic Block Copolymer Stabilized Lyotropic Liquid Crystals as Templates](#)", **Nanotechnology**, 17, 3121 (2006).

78. G.N. Karanikolos, P. Alexandridis, R. Mallory, A. Petrou, T.J. Mountziaris, "[Templated Synthesis of ZnSe Nanostructures Using Lyotropic Liquid Crystals](#)", **Nanotechnology**, 16, 2372 (2005).

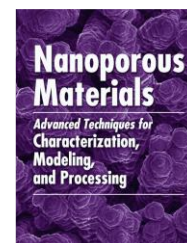
79. G.N. Karanikolos, P. Alexandridis, G. Itskos, A. Petrou, T.J. Mountziaris, "[Synthesis and Size Control of Luminescent ZnSe Nanocrystals by a Microemulsion-Gas Contacting Technique](#)", **Langmuir**, 20, 550 (2004).

## Patents

1. Dionysios Karousos, Andreas Sapalidis, Georgios Karanikolos, Evangelos Favvas, "[\*Magnetic Swing Absorption\*](#)", **USPTO No. 63/078,433**, Filed on September 15, 2020. **WIPO Publication Number WO/2022/058832**, Publication Date 24.03.2022
2. Dionysios Karousos, Andreas Sapalidis, Georgios Karanikolos, Evangelos Favvas, "[\*Magnetic-Based Determination of Sorption Separation Factor for Binary Gas Mixtures\*](#)", **USPTO No. 63/078,364**, Filed on September 15, 2020. WIPO Publication Number **WO/2022/058831**, Publication date: 24.03.2022
3. Georgios N. Karanikolos, Evangelos Favvas, Nikolaos Heliopoulos, Sergios K. Papageorgiou, "[\*Membrane Gas Separation under Magnetic Field\*](#)" **WO/2019/012317**, published on 17-1-2019. **USPTO US2020/0338496A1**, 29-10-2020, Gulf Cooperation Council (GCC), **GC 2018-35657**, 12-Jul-2018. European Patent Office **EP3651877A1**, 20-5-2020.
4. Alexandridis, G.N. Karanikolos, T.J. Mountziaris, "[\*Synthesis of Nanostructured Materials using Liquid Crystalline Templates\*](#)", **United States Patent No. 7,608,237**; Issued Oct. 27<sup>th</sup>, 2009. [**Licensed to Quantum Technology Inc., and Global IES Inc.**].
5. Alexandridis, G.N. Karanikolos, T.J. Mountziaris, "[\*Controlled synthesis of nanowires, nanodiscs, and nanostructured materials using liquid crystalline templates\*](#)", US 20060240590 A1, Pub. Date: Oct, 26, 2006
6. P. Alexandridis, G.N. Karanikolos, T.J. Mountziaris, International Patent Number [\*WO/2006/105102\*](#); publication date: October 5<sup>th</sup>, 2006.

## Book Chapters

1. Sana Eid, Ahmed Gulzar, Ali Al Najjar, Gabriele Scandura, Twinkle Paul, Dinesh Shetty, Hassan Arafat, Georgios N Karanikolos, Ludovic F Dumée, "[\*Covalent Organic Frameworks-Based Membranes and Adsorbents for Water Treatment and Gas Separation\*](#)", In **Covalent Organic Frameworks**, CRC Press, 397-410 (2023)
2. MO Mavukkandy, F Al-Marzooqi, E Alhseinat, G Karanikolos, SW Hasan, "[\*Tungsten Oxide-Blended PVDF-HFP Electrospun Nanofiber Membranes for Solar-Driven Interfacial Water Evaporation\*](#)", In **Water-Energy-Nexus in the Ecological Transition: Natural-Based Solutions**, Springer International Publishing (2023)
3. Zhou He, K. Suresh Kumar Reddy, Georgios N. Karanikolos\*, Kean Wang\*, "[\*CO<sub>2</sub>/CH<sub>4</sub> Separation \(Natural Gas Purification\) by Using Mixed Matrix Membranes\*](#)", in **Current Trends and Future Developments on (Bio-) Membranes**, Edited by Angelo Basile, Evangelos Favvas, Elsevier, 2018
4. C. Veziri, A. Labropoulos, G. N. Karanikolos, N. K. Kanellopoulos, "[\*Recent Developments in Membrane Technologies for CO<sub>2</sub> Separation\*](#)", in [\*Small-Scale Gas to Liquid Fuel Synthesis\*](#), Edited by N.K. Kanellopoulos, CRC Press, New York, 2015.
5. G.N. Karanikolos, "[\*Activated Carbon as Support for Controlled Growth of Carbon Nanotubes and Nanostructures\*](#)", in [\*Advances in Chemistry Research\*](#), Vol. 12, Edited by James C. Taylor, Nova Science Publishers, NY, 2011
6. G.N. Karanikolos, F.K. Katsaros, G.E. Romanos, K.L. Stefanopoulos, N.K. Kanellopoulos, "[\*The Combination of In Situ and Ex Situ Techniques for Monitoring and Controlling the Evolution of Nanostructure of Nanoporous Materials\*](#)", in **Nanoporous Materials: Advanced Techniques for Characterization, Modelling, and Processing**, Edited by N.K. Kanellopoulos, CRC Press, New York, 2010
7. G.N. Karanikolos, N.K. Kanellopoulos, In "[\*Verified Synthesis of Mesoporous Materials\*](#)", Edited by V. Meynen, P. Cool and E.F. Vansant, Microporous Mesoporous Mater., 125(3), Pages 169-224, Oct. 2009.



## Conference Proceedings

1. J. Iskandarov, G. Fanourgakis, W. Alameri, G. Froudakis, G. Karanikolos, "[\*Machine Learning Application to CO<sub>2</sub> Foam Rheology\*](#)", **Society of Petroleum Engineers (SPE) Proc.**, SPE-208016-MS (2021).
2. N. Bhoria, J. Pokhrel, S. Anastasiou, K.S.K. Reddy, G. Romanos, G.N. Karanikolos, "[\*Composite porous nanostructures as multi-action adsorbents and membrane fillers for carbon dioxide separation: Comparative\*](#)

- [performance of metal organic framework–graphene oxide hybrids](#)”. **Materials Today: Proceedings**, 37, 4044 (2021).
3. Varghese, K. Suresh Kumar Reddy, S. Singh, G.N. Karanikolos, “[UV-Activated Graphene Oxide for Carbon Capture: Application as Self-Supported Foam Adsorbent and Counterpart in Metal-Organic Framework/Graphene Oxide Hybrid Adsorbents](#)”, **Proceedings of the 15<sup>th</sup> Greenhouse Gas Control Technologies Conference**, SSRN: 10.2139/ssrn.3821344 (2021). **SSRN's Top Ten download list**
  4. S. Singh, A. Varghese, G.N. Karanikolos, “[Mixed Matrix CO<sub>2</sub> Separation Membranes based on Polysulfone with Cu-BTC Metal-Organic Framework and Poly\(ethylene glycol\)-grafted-Carbon Nanotubes](#)”, **Proceedings of the 15<sup>th</sup> Greenhouse Gas Control Technologies Conference**, SSRN: 10.2139/ssrn.3821350 (2021).
  5. Maryam Khaleel, Anna Tuneu-Pujolras, Issam Ismail, Georgios N. Karanikolos, Fèlix Llovel, Lourdes F. Vega, “[Amine-Functionalized Hierarchical Zeolites for Carbon Dioxide Capture](#)”, **AIChE Annual Meeting Proceedings**, ISBN: 978-0-8169-1108-0 (2018).
  6. Stavroula Anastasiou, Nidhika Bhoria, Jeewan Pokhrel, Georgios N. Karanikolos\*, “[Metal Organic Framework Mixed Matrix Membranes for CO<sub>2</sub> Separation](#)”, **Society of Petroleum Engineers (SPE) Proc.**, SPE-183264-MS, <http://dx.doi.org/10.2118/183264-MS>, 2, 1276 (2017).
  7. Jeewan Pokhrel, Nidhika Bhoria, Theodore Tsoufis, George Romanos, and Georgios N. Karanikolos\*, “[CO<sub>2</sub> capture By Amine-Functionalized Metal Organic Frameworks \(MOFs\), Graphene Oxide \(GO\), and MOF/GO Composites](#)”, **AIChE Annual Meeting Proceedings**, ISBN: 978-0-8169-1102-8 (2017)
  8. Anna Perdikaki, Angeliki Galeou, Georgios N. Karanikolos\*, “[Ag/Cu Bimetallic Nanoparticle and Ion - Graphene Composites with Enhanced Antibacterial Performance](#)”, **AIChE Annual Meeting Proceedings**, ISBN: 978-0-8169-1102-8 (2017)
  9. Stavroula Anastasiou, Jeewan Pokhrel, Nidhika Bhoria, K. Suresh Kumar Reddy and Georgios N. Karanikolos\*, “[Metal-Organic Framework/Graphene Oxide Composite Fillers in Mixed-Matrix Membranes for CO<sub>2</sub> Separation](#)”, **AIChE Annual Meeting Proceedings**, ISBN: 978-0-8169-1102-8 (2017)
  10. Jeewan Pokhrel, Nidhika Bhoria, Stavroula Anastasiou, Georgios N. Karanikolos\*, “[Metal Organic Frameworks \(MOFs\) and MOF/Graphene Oxide \(GO\) composites for Natural Gas Sweetening](#)”, **UAE Graduate Students Research Conference Proceedings** (2016)
  11. A.I. Labropoulos, E.C. Vermisoglou, N.K. Kakizis, G.E. Romanos, G.I. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, “[Advanced Techniques for Monitoring and Optimizing Processes Involving Nanoporous Materials](#)”, **17<sup>th</sup> Int. Offshore Polar Eng. Conf. Proc.**, 4, 2819 (2007).
  12. G.N. Karanikolos, P. Alexandridis, T.J. Mountziaris, “[Controlled Synthesis of Zinc Selenide Nanostructures using Oil-Water-Amphiphilic Block Copolymer Liquid Crystals](#)”, **MRS Proc.**, 942, 8 (2006).
  13. B. Kostova, G.N. Karanikolos, Y.G. Kevrekidis, T.J. Mountziaris, “[Multiscale modeling of the synthesis of quantum semiconductor nanostructures in templated media](#)”, **AIChE Annual Meeting Conf. Proc.**, 11652 (2005)
  14. G.N. Karanikolos, P. Alexandridis, N-L. Law, A. Petrou, T.J. Mountziaris, “[Templated synthesis of compound semiconductor nanostructures using lyotropic liquid crystals](#)”, **AIChE Annual Meeting Conf. Proc.**, 928 (2005)
  15. G.N. Karanikolos, P. Alexandridis, A. Petrou, and T.J. Mountziaris, “[Synthesis and Size Control of Luminescent II-VI Semiconductor Nanocrystals by a Novel Microemulsion-Gas Contacting Technique](#)”, **MRS Proc.**, 789, 389 (2004).
  16. G.N. Karanikolos, J. Wang, C. Sarigiannidis, P. Alexandridis and T.J. Mountziaris, “[A novel gas-emulsion synthesis route for ZnSe nanocrystals](#)”, **4<sup>th</sup> Panhellenic Chemical Eng. Conf. Proc.**, 269 (2003)
  17. M. Koutsona, C. Sarigiannidis, G.N. Karanikolos, and T.J. Mountziaris, “[Vapor-phase synthesis of ZnSe nanoparticles in a counterflow jet reactor](#)”, **4<sup>th</sup> Panhellenic Chemical Eng. Conf. Proc.**, 273 (2003)

### Invited Seminars

1. **ADNOC Refining Knowledge Sharing Program on Carbon capture technology**, “Energy efficient processes for carbon capture: Research advances in adsorption and membrane technologies”, 29<sup>th</sup> March 2021
2. **Hydrogen Utilization and Green Energy Workshop (HUGE), Khalifa University**, “Energy Efficient Processes for Carbon Removal Towards Blue Fuels: Research Advances in Adsorption and Membrane Technologies”, 31<sup>st</sup> May 2021
3. **Masdar Institute PhD seminar**, “Adsorption and membrane-based CO<sub>2</sub> capture and separation”, Masdar City, Abu Dhabi, April 3, 2018



4. **Water, Energy Technology and Environment Exhibition (WETEX-2017)**, (<https://www.wetex.ae/>), “Novel, Highly Selective Nanocomposite Adsorbents for High Capacity CO<sub>2</sub> Capture from Tail Gas and Cost-Effective Regeneration for EOR Use”, Dubai, October 23-25, 2017
5. **CO<sub>2</sub> Workshop: CO<sub>2</sub> capture, utilization and storage – where are we?**, “Adsorption and membrane based CO<sub>2</sub> capture and separation”, Abu Dhabi, April 19-20, 2017
6. **Materials Science-2016**, “Zeolite and Metalorganic Framework Materials and Membranes for Gas Separation”, Abu Dhabi, November 28-30, 2016 *Keynote*
7. **3<sup>rd</sup> Hellenic Forum for Science, Technology & Innovation**, “Zeolite and Metalorganic Framework Materials and Membranes for Gas Separation”, Athens, July 1, 2015
8. **Materials, Innovation and Solutions for the Oil & Gas Industry International Workshop**, “Hierarchical Fabrication of Nanostructured Materials for Separation and Catalysis”, Abu Dhabi, November 26, 2013
9. **Demokritos National Research Center Summer School**, “Graphitic nanostructures: Synthesis, properties, and applications”, Athens, July 2013
10. **Imperial College, Department of Chemical Engineering**, London, UK, Dec. 7, 2012
11. **University of Cambridge, Department of Chemical Engineering**, Cambridge, UK, Nov. 28, 2012
12. **NANO2012 – XI International Conference on Nanostructured Materials**, Rhodes, Greece, Aug 30, 2012
13. **University of Crete, Department of Materials Science & Technology**, Heraklion, Greece, May 18, 2012
14. **SUNY at Buffalo, Department of Chemical & Biological Engineering**, Buffalo, NY, March 22, 2012
15. **EPFL - Swiss Federal Institute of Technology, School of Basic Sciences**, Lausanne, Switzerland, May 15, 2012
16. **Worcester Polytechnic Institute (WPI), Chemical Engineering Dep.**, Worcester, MA, March 26, 2012
17. **University College London (UCL), Department of Chemical Engineering**, London, Feb. 13, 2012
18. **German-Greek Forum, “Capital & Vision”**, “Nanotechnology for Targeted Cancer Therapy: The Case of Multifunctional Carbon Nanotubes”, Athens, Sept. 2011, (<http://www.capitalvision.gr/e/home.asp>)
19. **NCSR Demokritos Summer School Lecture**, «Multifunctional Carbon Nanotube Systems”, July 2010 and 2011. **In the top-5 list of lectures with the greatest acceptance by the audience in the areas of Advanced Materials & Nanotechnology, and Informatics, Telecommunications & Safety (2010).**
20. **University of Patras, Department of Chemical Engineering**, Patras, Greece, March 27, 2009.
21. **The Nano-multidisciplinary Symposium, 1<sup>st</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems**, Halkidiki, Greece, June 18, 2008.
22. **University of Patras, Department of Materials Science**, Patras, Greece, June 8, 2008.
23. **Joint Seminar: Departments of Materials Science & Technology, and Physics, University of Crete**, Heraklion, Greece, Nov. 8, 2007
24. **NCSR Demokritos, also broadcasted in real time by teleconference to the members of the INSIDE PORES EU Network of Excellence**, Athens, Oct 16, 2006.
25. **Institute of Chemical Engineering & High-Temperature Chemical Processes**, Patras, May 15, 2006.
26. **University of Minnesota, Chemical Engineering & Materials Science**, Minneapolis, Aug 4, 2005.

## PROFESSIONAL ACADEMIC SERVICE

### Journal Editorship

- Guest Associate Editor, [Frontiers in Chemistry](#)
- Review Editor in *Frontiers in Chemical Engineering - Materials Process Engineering*

### Conference Committees:

- Review committee, 14<sup>th</sup> International Conference on Fundamentals of Adsorption, Broomfield, CO (USA), May 22 - 27, 2022
- Review committee, Greenhouse Gas Control Technologies 2020 (GHGT-15, <https://ghgt.info/>)
- Technical program committee, and Chair of Session "Engineering and Physical Sciences", UAE Graduate Students Research Conference 2019 (UAEGSRC2019), Abu Dhabi, April 16, 2019
- Organizing Committee, Catalysis and Separation: Shaping the Future Energy Conference, Abu Dhabi, December 9-10, 2018.
- Organizing Committee, Materials Science 2018 Conference, Dubai, December 3-5, 2018.

- Technical Program Committee Member, Environmental and Materials Science Symposium 2017 (EMSS'17), In Association with the American Chemical Society (ACS) UAE Chapter, Abu Dhabi, Dec 6, 2017.
- Reviewer Committee, 1<sup>st</sup> International Conference on Energy, Power, Petroleum and Petrochemical Engineering (E3PE 2017), Beirut, April 26-28, 2017.
- Technical program committee, and Chair of Session "Chemistry and Chemical Engineering", UAE Graduate Students Research Conference 2017 (UAEGSRC2017), Abu Dhabi, March 20-21, 2017
- Workshop Organizer, "Adsorption Processes for CO<sub>2</sub> Capture", Sponsored by ADNOC R&D, Abu Dhabi, June 30, 2016
- Organization Committee: "The impact of Greece to Chemical Engineering Science" workshop, 4<sup>th</sup> Hellenic Forum for Science, Technology and Innovation, Athens, July 11-15, 2016
- Conference program committee, 2016 R&D Conference and Exhibition, Abu Dhabi Research & Innovation Center (ADRIC), November 21, 2016
- Technical Committee for Gas Technology, ADIPEC 2015 (Abu Dhabi International Petroleum Exhibition & Conference), Abu Dhabi, November 9-12, 2015
- Session Chair: "Nanotechnology: Workshop 12 - Nanoporous Materials for Energy & Environmental Applications", 3<sup>rd</sup> Forum for Science, Technology & Innovation, Athens, July 1, 2015
- Round table panelist: "Nanotechnology in Sour Gas Processing", 3<sup>rd</sup> Abu Dhabi International Research and Development Conference & Exhibition (ADRAC 2014), Abu Dhabi, February 25<sup>th</sup>, 2014
- Conference organizing committee: IZMM 2010, "5<sup>th</sup> International Zeolite Membrane Meeting", Loutraki, Greece, May 23-26, 2010 (<http://izmm5.iceht.forth.gr/>)
- Conference organizing committee: NAPEN-2008, "1<sup>st</sup> International Workshop of Nanoporous Materials in Energy and Environment", Chania, Greece, Oct. 11-15, 2008 (<http://www.napen2011.com/index.php?lang=en&rm=23&mn=23>),
- Session Chair: "Advanced Materials and Nanotechnology", NCSR Demokritos Summer School, July 2010,
- Conference Scientific Committee: CCS 2013, European Carbon Capture & Storage Conference, May 28 - 29, 2013, Antwerp, Belgium.

#### Reviewer for Proposals:

- National Science Center of Poland
- Austrian Science Fund
- Oman Research Council
- Chilean National Science and Technology Commission
- Hellenic Foundation for Research and Innovation
- Hellenic Foundation of National Scholarships (IKY)

#### Reviewer for Journals:

Angewandte Chemie, Journal of the American Chemical Society, SMALL, ACS Applied Nano Materials, ACS Applied Bio Materials, Journal of Physical Chemistry, Carbon, ACS Applied Materials & Interfaces, Journal of Membrane Science, Journal of Colloid & Interface Science, Journal of Chemical & Engineering Data, RSC Advances, Accounts in Chemical Research, Chemical Engineering Journal, Journal of Materials Science, Microporous and mesoporous Materials, Journal of Industrial and Engineering Chemistry, Separation Science and Technology, Applied Surface Science, Physica E, Advances in Colloid and Interface Science, Critical Reviews in Solid State and Materials Sciences, Microelectronics Journal, Journal of Hazardous Materials, Journal of Alloys and Compounds, Nanomedicine: Nanotechnology, Biology, and Medicine, Advanced Healthcare Materials, Surface and Coatings Technology, European Polymer Journal, Polymer, Polymer Testing, Chemistry Select, Applied Physics A, Journal of Nanostructured Polymers and Nanocomposites, Materials Chemistry and Physics, Physica Status Solidi A, New Journal of Chemistry, Biomedical and Environmental Sciences, Journal of Environmental Engineering, Materials Today Communications, Colloid and Interface Science Communications, Journal of Cleaner Production, International Journal of Energy Research, Journal of Molecular Liquids, Separation and Purification Technology, and more.

#### Member of Scientific Societies:

- International Adsorption Society (IAS)

- International Society for Porous Media (InterPore)
- AIChE (American Institute of Chemical Engineers)
- MRS (Materials Research Society)
- IAEE (International Association for Energy Economics)

## CONFERENCE PRESENTATIONS

1. Margarita Russina, Gerrit Günther, Veronika Grzimek, Charitomeni Veziri, Georgios N Karanikolos, “Cooperativity in confined water behavior”, **American Physical Society Meeting**, March 14–18, 2022; Chicago, USA
2. Daniel Bahamon, Hongyu Zhao, Husam AlAraj, K. Suresh Kumar Reddy, Georgios N. Karanikolos, Maryam Khaleel, Lourdes F. Vega. Design and implementation of novel hybrid/functionalized adsorbent materials for efficient CO<sub>2</sub> capture by a combined experimental-molecular simulation approach. **16<sup>th</sup> International Conference on Greenhouse Gas Control Technologies (GHGT-16)**, 2022, France
3. Fahmi Anwar, K Suresh Kumar Reddy, Anish Mathai Varghese, Maryam Khaleel, Kean Wang, G. N. Karanikolos. Paraffin Affinity Modulation of Mesoporous Silica Adsorbents for Ethane/Ethylene Separation, **14<sup>th</sup> International Conference on Fundamentals of Adsorption (FOA 2022)**, ID: 1840, May 22-27, Broomfield, Colorado, USA.
4. K. Suresh Kumar Reddy, Anish Mathai Varghese, G.N. Karanikolos. Aminosilane-Functionalized Ordered Hierarchical Nanostructured Silica and KIT-6 Adsorbents for low-Pressure CO<sub>2</sub> Capture, **14<sup>th</sup> International Conference on Fundamentals of Adsorption (FOA 2022)**, ID: 1842, May 22-27, Broomfield, Colorado, USA.
5. Anish Mathai Varghese, K. Suresh Kumar Reddy, G. N. Karanikolos. CO<sub>2</sub> Capture by UV-Activated GO and GO/MOF Hybrid Adsorbents, **14<sup>th</sup> International Conference on Fundamentals of Adsorption (FOA 2022)**, ID: 1845, May 22-27, Broomfield, Colorado, USA.
6. Vengatesan M Rangaraj, K. Suresh Kumar Reddy, G. N. Karanikolos. Synthesis and CO<sub>2</sub> Adsorption of Phosphonitrilic-core Covalent Triazine Frameworks, **14<sup>th</sup> International Conference on Fundamentals of Adsorption (FOA 2022)**, ID: 1836, May 22-27, Broomfield, Colorado, USA.
7. Anish Mathai Varghese, K. Suresh Kumar Reddy, G. N. Karanikolos. Metal-Organic Framework/Graphene Oxide Hybrid Adsorbents for Hydrogen Separation and Storage at Ambient Temperature, **European Hydrogen Energy Conference (EHEC 2022)**, ID: 181, 77, May 18-20, Madrid, Spain.
8. Anish Mathai Varghese, K. Suresh Kumar Reddy, G. N. Karanikolos. Metal - decorated activated carbon - based adsorbents for hydrogen storage at ambient temperature: A comparative study using Pt, Pd, and Li, **European Hydrogen Energy Conference (EHEC 2022)**, ID: 180, May 18-20, Madrid, Spain.
9. T. Kentri, K. S. K. Reddy, A. Christofidi, G. N. Karanikolos, and S. Boghosian, An in Situ Spectroscopic Study of Nanostructured Aminosilane-Grafted Silica Adsorbents for CO<sub>2</sub> Capture. (paper P-325) Proc. **13<sup>th</sup> Panhellenic Symp. Chemical Engineering**, Patras, 2-4 June 2022.
10. J. Iskandarov, G. Fanourgakis, W. AlAmeri, G. Frudakis, G. Karanikolos, “Machine Learning Application to CO<sub>2</sub> Foam Rheology”, **ADIPEC**, 15-18 November, 2021, Abu Dhabi, UAE.
11. Musthafa Mavukkandy Odayooth, Yazan Ibrahim, Faisal Almarzooqi, Vincenzo Naddeo, Emad Alhseinat, Georgios Karanikolos N, Fawzi Banat, Shadi Hasan Wajih, “Gravity-driven oil/water separation using PVDF-HFP electrospun nanofiber membranes”, **17<sup>th</sup> International Conference on Environmental Science and Technology (CEST2021)**, September 1-4, 2021, Athens, Greece
12. E. Thomou, V. Sakavitsi, G. K. Angeli, K. Spyrou, K. G. Froudias, E. K. Diamanti, G. E. Romanos, G. N. Karanikolos, P. N. Trikalitis, D. Gournis and P. Rudolf, “A diamino-functionalized silsesquioxane pillared graphene oxide for CO<sub>2</sub> capture”, **5<sup>th</sup> EuChemS Conference on Green and Sustainable Chemistry (5th EuGSC)**, 26 – 29 September 2021.
13. Anish Mathai Varghese, K. Suresh Kumar Reddy, Swati Singh, Nidhika Bhoria, Jeewan Pokhrel, Georgios N. Karanikolos, “Performance Enhancement of Graphene-based CO<sub>2</sub> Adsorbents by UV Treatment”, **15<sup>th</sup> International Conference on Greenhouse Gas Control Technologies (GHGT-15)**, 15-18 March 2021, Abu Dhabi, UAE
14. S. Singh, A. Varghese, G. Karanikolos, "Mixed Matrix CO<sub>2</sub> Separation Membranes based on Polysulfone and Poly(ethylene glycol)-grafted-Carbon Nanotubes", **15<sup>th</sup> International Conference on Greenhouse Gas Control Technologies (GHGT-15)**, 15-18 March 2021, Abu Dhabi, UAE
15. Fatema Khamis, Fawzi Banat, Hassan Arafat, Georgios Karanikolos, “Polyethersulfone ultrafiltration membranes doped with plate-like CoAPO-5 crystal assemblies for organic fouling mitigation”, **UAE Graduate Students Research Conference (UAEGSRC2021)**, June 28<sup>th</sup>, 2021.

16. Samar Abd Elwaddood, Yasser Al Wahedi, Ali Al Alili, Georgios N. Karanikolos, “Aluminophosphate-Based Materials for Water Sorption Applications”, **UAE Graduate Students Research Conference (UAEGSRC2021)**, June 28<sup>th</sup>, 2021.
17. Fahmi Anwar, Maryam Khaleel, Kean Wang, Georgios N. Karanikolos, “Paraffin Affinity Modulation of SBA-15 and its Application in Ethane/Ethylene Separation”, **UAE Graduate Students Research Conference (UAEGSRC2021)**, June 28<sup>th</sup>, 2021.
18. M.O. Mavukkandy, F. Al-Marzooqi, E. Alhseinat, G. Karanikolos, V. Naddeo, S.W. Hasan, “Tungsten Oxide Blended PVDF-HFP Electrospun Nanofiber Membranes for Solar-Driven Interfacial Water Evaporation”, **3<sup>rd</sup> WaterEnergyNEXUS**, December 2-4 (2020).
19. Suresh Kuppireddy, Anish Varghese, Georgios Karanikolos, “Graphene- and CNT- Hybrids with Metallic and Metalorganic Framework Nanostructures as Reversible and Sustainable H<sub>2</sub> Storage Media”, **MRS Spring/Fall Meeting**, November 27 - December 4, 2020
20. Adetola Ogungbenro, Suresh Kuppireddy, Maryam Khaleel, Georgios Karanikolos, ‘Site-Specific Surface Modification and Functionalization of Porous Nanostructured Scaffolds for Tunable Adsorption Applications’, **MRS Spring/Fall Meeting**, November 27 - December 4, 2020
21. Anish Varghese, Swati Singh, Suresh Kuppireddy, Georgios Karanikolos, “Porous Materials – Graphene Hybrid Nanostructures with Tailored Interfaces as Membrane and Adsorbent Components in Gas Separation”, **MRS Spring/Fall Meeting**, November 27 - December 4, 2020
22. Naman Arora, Anna Perdikaki, Paschalis Alexandridis, T. J. (Lakis) Mountziaris, Georgios Karanikolos, “Nano-Engineering in Confined Spaces: Size- and Shape-Controlled Growth of Functional Nanostructures in Self-Assembled Block Copolymer Nanoreactors”, **MRS Spring/Fall Meeting**, November 27 - December 4, 2020
23. G. Günther, V. Grzimek, Charitomeni M. Veziri, Georgios N. Karanikolos, M. Russina, “Water filling of hydrophobic cylindrical subnanopores”, **12<sup>th</sup> International Symposium on the Characterization of Porous Solids (COPS-XII)**, Bath (UK), 7 -10 June, 2020
24. Anish Varghese, Swati Singh, Georgios Kakosimos, Adetola Ogungbenro, Suresh Kuppireddy, Georgios Karanikolos, “Nanostructured Adsorbents and Membranes for Carbon Capture”, **16<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN19)**, Thessaloniki, Greece, 2-5 July 2019.
25. O. Tzialla, D. Karouzos, A. Labropoulos, G. Karanikolos, G. Pilatos, K. Beltsios, G. Romanos, “Porous adsorbents and gas separation membranes by incorporation of ionic liquid precursor phases”, **12<sup>th</sup> Panhellenic Chemical Engineering Conference**, Athens, Greece, May 29-31, 2019
26. Maryam Khaleel, Anna Tuneu-Pujolras, Issam Ismail, Georgios N. Karanikolos, Lourdes F. Vega and Fèlix Llovell, “Amine-Functionalized Hierarchical Zeolites for Carbon Dioxide Capture”, **2018 American Institute of Chemical Engineers (AIChE) Annual Meeting**, Pittsburgh, USA, October 28 - November 2, 2018.
27. Anna Tuneu Pujolras, Issam Ismail, K. Suresh Kumar Reddy, Fqlix Llovell, Georgios N. Karanikolos, Lourdes F. Vega, Maryam Khaleel, “Amine-Functionalized Hierarchical Zeolites for Carbon Dioxide Capture”, **2<sup>nd</sup> International Conference on Functional Materials and Chemical Engineering (ICFMCE 2018)**, Abu Dhabi, 20-22 November, 2018
28. N. Karouta, E. Thomou, K. Spyrou, Ch. Tampaxis, G. Charalambopoulou, Th. A. Steriotis, K. S. Triantafyllidis, G. E. Romanos, G. N. Karanikolos, P. N. Trikalitis, P. Rudolf and D. Gournis, “Amino-functionalized silsesquioxane pillared graphene oxide for CO<sub>2</sub> capture”, **European Graphene Forum 2018**, Venice, Italy, October 23-25 2018.
29. K. Suresh Kumar Reddy, Georgios N. Karanikolos, “Low-Pressure Carbon Capture by Amine-Grafted, Pore-Expanded Mesoporous Silica Adsorbents”, **Catalysis and Separation: Shaping the Future Energy**, Abu Dhabi, December 9-10, 2018.
30. George Kakosimos, Georgios N. Karanikolos, “MOF-DOBDC Based Adsorbents for CO<sub>2</sub> Separation”, **Catalysis and Separation: Shaping the Future Energy**, Abu Dhabi, December 9-10, 2018.
31. Anish Mathai Varghese, Georgios N. Karanikolos, “CO<sub>2</sub> adsorption using UV-irradiated self-supported graphene oxide foam”, **Catalysis and Separation: Shaping the Future Energy**, Abu Dhabi, December 9-10, 2018.
32. Swati Singh, Georgios N. Karanikolos, “PSF/CNT mixed matrix membranes for CO<sub>2</sub> separation: Effect of PEG-g-CNTs on membrane performance”, **Catalysis and Separation: Shaping the Future Energy**, Abu Dhabi, December 9-10, 2018.
33. Nidhika Bhorla, Stavroula Anastasiou, Jeewan Pokhrel, K. Suresh Kumar Reddy, and G. N. Karanikolos\*, “CO<sub>2</sub> Separation by Metal-Organic Framework and Graphene Oxide Mixed-Matrix Membranes”, **Greenhouse Gas Control Technologies (GHGT-14)**, Melbourne, Australia, October 21 - October 26, 2018.

34. Jeewan Pokhrel, Nidhika Bhoria, Theodoros Tsoufis, George Romanos, Georgios N. Karanikolos\*, “CO<sub>2</sub> Adsorption Behavior of Amine-Functionalized MOFs, Graphene Oxide, and MOF/Graphene Oxide Composite Adsorbents under Dry and Wet Conditions”, **Greenhouse Gas Control Technologies (GHGT-14)**, Melbourne, Australia, October 21 - October 26, 2018
35. Maryam Khaleel, Anna Tuneu-Pujolras, Issam Ismail, Georgios N. Karanikolos, Lourdes F. Vega and Fèlix Llovell, “Amine-Functionalized Hierarchical Zeolites for Carbon Dioxide Capture”, **Greenhouse Gas Control Technologies (GHGT-14)**, Melbourne, Australia, October 21 - October 26, 2018
36. Jeewan Pokhrel, Nidhika Bhoria, Theodore Tsoufis, George Romanos, Georgios N. Karanikolos\*, “Carbon Dioxide Capture by Amine-Grafted Nanoporous Adsorbents”, **2018 Research & Development Petroleum Conference and Exhibition (RDPETRO)**, Abu Dhabi, May 9 -10 2018.
37. Stavroula Anastasiou, Nidhika Bhoria, Jeewan Pokhrel, K. Suresh Kumar Reddy, Georgios N. Karanikolos\*, “Metal-Organic Framework/Graphene Oxide Polymer Nanocomposite Membranes for Carbon Dioxide Separation”, **12<sup>th</sup> International Summer Schools on Nanoscience & Nanotechnology (ISSON-18)**, Thessaloniki, Greece, 30 June-7 July 2018.
38. Jeewan Pokhrel, Nidhika Bhoria, Theodore Tsoufis, George Romanos, Georgios N. Karanikolos, “Carbon Dioxide Capture by Amine-Functionalized Zeolitic Imidazolate Frameworks (ZIFs), Graphene Oxide, and ZIF/Graphene Oxide Nanocomposites under Dry and Wet Conditions”, **15<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN18)**, Thessaloniki, Greece, 3-6 July 2018.
39. Stavroula Anastasiou, Jeewan Pokhrel, Nidhika Bhoria, K. Suresh Kumar Reddy and Georgios N. Karanikolos, “Metal-Organic Framework/Graphene Oxide Composite Fillers in Mixed-Matrix Membranes for CO<sub>2</sub> Separation”, **2017 American Institute of Chemical Engineers (AIChE) Annual Meeting**, Minneapolis, USA, October 29 - November 3, 2017.
40. Jeewan Pokhrel, Nidhika Bhoria, Theodore Tsoufis, George Romanos, and Georgios N. Karanikolos, “CO<sub>2</sub> capture By Amine-Functionalized Metal Organic Frameworks (MOFs), Graphene Oxide (GO), and MOF/GO Composites”, **2017 American Institute of Chemical Engineers (AIChE) Annual Meeting**, Minneapolis, USA, October 29 - November 3, 2017.
41. Anna Perdikaki, Angeliki Galeou, Georgios N. Karanikolos, “Ag/Cu Bimetallic Nanoparticle and Ion - Graphene Composites with Enhanced Antibacterial Performance”, **2017 American Institute of Chemical Engineers (AIChE) Annual Meeting**, Minneapolis, USA, October 29 - November 3, 2017.
42. Nidhika Bhoria, He Zhou, Jeewan Pokhrel, Suresh Kuppireddy, Kean Wang, Georgios Karanikolos, “Mixed Matrix Membranes for Enhanced Gas Separations”, **Environmental & Materials Science Symposium (EMSS17)**, Abu Dhabi, Dec. 6, 2017
43. Jeewan Pokhrel, Nidhika Bhoria, Suresh Kuppireddy, Georgios Karanikolos, “CO<sub>2</sub> Sorption Studies in Cu-Based Metal Organic Framework for PSA applications”, **Environmental & Materials Science Symposium (EMSS17)**, Abu Dhabi, Dec. 6, 2017
44. Dana AlShami, Georgia Basina, Fadi Dawaymeh, Vaithilingam Balasubramanian, Abeer AlYafeai, Anjana Tharakshmy, Georgios N. Karanikolos, Yasser Al Wahedi, “Synthesis, characterization and metal substitution in aluminophosphate materials”, **EUROMAT 2017**, Thessaloniki, Greece, 17-22 September
45. S. Anastasiou, N. Bhoria, J. Pokhrel, C. Veziri, G. Romanos, G. N. Karanikolos, “Metal Organic Framework Mixed Matrix Membranes for CO<sub>2</sub> Separation”, **14<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN17)**, Thessaloniki, Greece, 4-7 July 2017
46. A. Perdikaki, A. Galeou, G. Pilatos A. Prombona, and G. N. Karanikolos, “Ag/Cu Bimetallic Nanoparticle - Graphene Composites with Enhanced Antibacterial Performance”, **14<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN17)**, Thessaloniki, Greece, 4-7 July 2017
47. Jeewan Pokhrel, Nidhika Bhoria, Stavroula Anastasiou, Suresh Kuppireddy, C. S. Kannan, George Romanos, Georgios N. Karanikolos, “Growth and functionalization of metal organic frameworks (MOFs) and MOF composites for CO<sub>2</sub> capture”, **2017 PI R&D Conference and Exhibition**, Abu Dhabi, March 19-20, 2017
48. Nidhika Bhoria, Jeewan Pokhrel, Stavroula Anastasiou, George Romanos, Georgios N. Karanikolos, “CO<sub>2</sub> capture by amine-functionalized graphene oxide”, **2017 PI R&D Conference and Exhibition**, Abu Dhabi, March 19-20, 2017
49. Stavroula Anastasiou, Nidhika Bhoria, Jeewan Pokhrel, Georgios N. Karanikolos “Metal Organic Framework Mixed Matrix Membranes for CO<sub>2</sub> Separation”, **ADIPEC 2016**, Paper No: 183264, Abu Dhabi, 7-10 November, 2016
50. Jeewan Pokhrel, Nidhika Bhoria, Stavroula Anastasiou, Georgios N. Karanikolos, “Metal Organic Frameworks (MOFs) and MOF/Graphene Oxide (GO) composites for Natural Gas Sweetening”, **UAE Graduate Students Research Conference 2016 (UAEGSRC'16)**, Al-Ain, UAE, April 17-19

51. Stavroula Anastasiou, Nidhika Bhorla, Jeewan Pokhrel, Kean Wang, and Georgios Karanikolos, “Metal Organic Framework Mixed Matrix Membranes for CO<sub>2</sub> Separation”, **the 2016 Petroleum Institute R&D Conference and Exhibition**, Abu Dhabi, November 21
52. Jeewan Pokhrel, Nidhika Bhorla, Stavroula Anastasiou, and Georgios N. Karanikolos, “Metal Organic Frameworks (MOFs) and MOF/Graphene Oxide Composites for Acid Gas Removal”, **the 2016 Petroleum Institute R&D Conference and Exhibition**, Abu Dhabi, November 21
53. Fadi Dawaymeh, Yasser Fowad AlWahedi and Georgios N. Karanikolos, “Metal-Substituted Porous Aluminophosphate Catalysts”, **the 2016 Petroleum Institute R&D Conference and Exhibition**, Abu Dhabi, November 21.
54. Jeewan Pokhrel, Nour Owina, Haris Margetis, Stavroula Anastasiou, Marios S. Katsiotis, Gigi George, Vikas Mittal, Georgios N. Karanikolos, “Metal Organic Framework nanocomposites for natural gas sweetening”, **4<sup>th</sup> Nano Today Conference (Elsevier)**, Dubai, Dec 6-10, 2015
55. Anna Perdikaki, Anastasios Labropoulos, Giorgos Karanikolos, Polycarpos Falaras, George Romanos, “Catalytic nanoporous membrane reactor for CO oxidation” **12<sup>th</sup> International Conference on Catalysis in Membrane Reactors (ICCMR12)**, 22 -25 June, 2015, Szczecin, Poland
56. Raed Bamardoof, Yahya Almuhamarram, Hasan Al-Ali, Mubarak Alhameli, Georgios Karanikolos, “Safe and Economic Production of Heterogeneous Catalysts for the Oil and Gas Industry”, **Think Science**, Dubai, May 4-7, 2015.
57. Anastasios Labropoulos, Charitomeni Veziri, Maria Kapsi, George Pilatos, Michael Tsapatsis, Nick K. Kanellopoulos, George E. Romanos, Georgios N. Karanikolos, “A carbon nanotube microporous membrane for gas separation”, **4<sup>th</sup> Nano Today Conference (Elsevier)**, Dubai, Dec 6-10, 2015
58. Anna Perdikaki, Anastasios Labropoulos, Georgios Karanikolos, George Romanos, “An ionic liquid-modified, Au nanoparticle-loaded, ZrO<sub>2</sub> nanoporous catalytic membrane”, **4<sup>th</sup> Nano Today Conference (Elsevier)**, Dubai, Dec 6-10, 2015
59. A. Perdikaki, A. Labropoulos, G. N. Karanikolos, P. Falaras, G. Romanos, “Catalytic nanoporous membrane reactor for CO oxidation”, **12<sup>th</sup> International Conference on Catalysis in Membrane Reactors (ICCMR12)**, Szczecin, Poland, June 2015
60. G. N. Karanikolos, P. Alexandridis, “Phase Behavior, Structure, and Dynamics of Amphiphiles for Asphaltene Inhibition”, **3<sup>rd</sup> Abu Dhabi International Research and Development Conference & Exhibition (ADRAC 2014)**, Abu Dhabi, February 2014
61. G. N. Karanikolos, C. Vezyri, A. Labropoulos, A. G. Kontos, V. Likodimos, P. Falaras, G. Romanos, “Metal Organic Framework Materials and Membranes for CO<sub>2</sub> and H<sub>2</sub>S Removal” **3<sup>rd</sup> Abu Dhabi International Research and Development Conference & Exhibition (ADRAC 2014)**, Abu Dhabi, February 2014
62. G. N. Karanikolos, G. Pilatos, C. Vezyri, E. Vermisoglou, G. Romanos, N. Kanellopoulos, M. Tsapatsis, “Hierarchical Zeolites and Nanostructured Materials for Gas Separation and Heterogeneous Catalysis”, **3<sup>rd</sup> Abu Dhabi International Research and Development Conference & Exhibition (ADRAC 2014)**, Abu Dhabi, February 2014
63. C. Vezyri, A. Labropoulos, N. K. Kanellopoulos, M. Tsapatsis, G. E. Romanos, G. N. Karanikolos, “Carbon Nanotube Microporous Membranes for Gas Separation”, **11<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN14)**, Thessaloniki, Greece, July 2014,
64. A. Perdikaki, G. Pilatos, E. C. Vermisoglou, G.E. Romanos, N.K. Kanellopoulos, and G. N. Karanikolos, “One-Step, In-Situ Growth of Unmodified Graphene Multifunctional Composites and their Applications”, **11<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN14)**, Thessaloniki, Greece, July 2014
65. M. Russina, M. C. Schegel, F. Mezei, G. N. Karanikolos, W. Stein, R. Bewley, M. Zamponi, “Anisotropic water dynamics confined into oriented sub-nanometer pores”, **German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2014**, Bonn, Germany, September 2014
66. A. V. Perdikaki, O. C. Vangeli, G. N. Karanikolos, N. K. Kanellopoulos, G. E. Romanos, “Ionic Liquid-Porous Hybrid Nanocatalysts”, **Hybrid Materials**, Sorrento, Italy, March 2013
67. G. Pilatos, E. C. Vermisoglou, A. V. Perdikaki, G. E. Romanos, N. K. Kanellopoulos, G. N. Karanikolos, “Magnetic Carbon Nanotubes and Graphene Based Membranes and Nanoparticles”, **Hybrid Materials**, Sorrento, Italy, March 2013
68. C. M. Vezyri, O. I. Tziaila, X. L. Papatryfon, G. E. Romanos, A. Labropoulos, G. N. Karanikolos, “Zeolitic imidazolate framework – ionic liquid hybrids for enhanced CO<sub>2</sub> capture and separation”, **Hybrid Materials**, Sorrento, Italy, March 2013

69. D. Petridis, G. N. Karanikolos, D. Niarchos, C. Trapalis, "A facile, one-pot, wet route to thermoelectric powders of high purity", **4<sup>th</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)**, Corfu, Greece, June 2013
70. G. Pilatos, E.C. Vermisoglou, A. Perdikaki, G.E. Romanos, E. Devlin, N.K. Kanellopoulos, G.N. Karanikolos, "Graphene and carbon nanotube magnetic nanocomposites by in-situ CVD", **4<sup>th</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)**, Corfu, Greece, June 2013
71. Ch. Veziri, O.I. Tzialla, X.L. Papatryfon, A. Labropoulos, N.K. Kanellopoulos, G.E. Romanos, G. N. Karanikolos, "Zeolitic imidazolate framework – ionic liquid hybrid membranes for CO<sub>2</sub> separation", **4<sup>th</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)**, Corfu, Greece, June 2013
72. C. Veziri, O. Tzialla, X. Papatryfon, A. Labropoulos, G. E. Romanos, G. N. Karanikolos, "Development of Supported Highly c-oriented ZIF Membranes for CO<sub>2</sub>/N<sub>2</sub> Separation", **Carbon Capture and Storage 2013 (CCS13)**, Antwerp, Belgium, May 2013,
73. Ch. Veziri, O. Tzialla, G. N. Karanikolos, G.E. Romanos, B. Iliev, G. Adamova, T.J.S. Schubert, A.G. Konrtos, V. Likodimos, P. Falaras, "Ionic liquid modified imidazolate framework (ZIF-69) for energy efficient CO<sub>2</sub> separation from coal fired power plants", **1st International Congress on Materials and Renewable Energy (MRE2013)**, Athens, July 2013,
74. N.G. Moustakas, A.G. Kontos, C.M. Veziri, O.I. Tzialla, V. Likodimos, G.N. Karanikolos, G. Romanos, P. Falaras, "CO<sub>2</sub> capture in Zeolite Imidazole Frameworks (ZIFs) investigated by Raman spectroscopy", **10<sup>th</sup> International Conference on Nanosciences & Nanotechnologies – NN13**, Thessaloniki, Greece, July 2013
75. E.C. Vermisoglou, G. Pilatos, E. Devlin, G.E. Romanos, V. Likodimos, N. Boukos, N.K. Kanellopoulos G.N. Karanikolos, "Ferrofluid-Based Manipulation of Magnetic Nanocarbon by CVD: From Tubes to Graphene", **GraphEL - European Conference on the Synthesis, Characterization and Applications of Graphene**, Myconos, Greece, Sep. 28, 2012
76. A.V. Perdikaki, O.C. Vangeli, G.N. Karanikolos, K.L. Stefanopoulos, K.G. Beltsios, P. Alexandridis, N.K. Kanellopoulos, G.Em. Romanos, "Ionic Liquid-Modified Nanoporous Materials for Gas Separation and Heterogeneous Catalysis", **NANO 2012**, Rhodes, Greece, Aug. 30, 2012
77. A.V. Perdikaki, P. Tsitoura, K. Iatrou, N.K. Kanellopoulos, G.N. Karanikolos, "Single-Step Synthesis and Stabilization of Silver Nanoparticles in Aqueous Block Copolymer Solutions and their Antibacterial Activity", **NANO 2012**, Rhodes, Greece, Aug. 30, 2012
78. J.A. Stoeger, M. Palomino, C.M. Veziri, A. Corma, N.K. Kanellopoulos, G.N. Karanikolos, M. Tsapatsis, "Stability and Separation Performance of Highly c-Oriented AFI-Type Aluminophosphate Membranes", **AIChE Annual Meeting**, Minneapolis, MN, Oct. 16-21, 2011
79. E.C. Vermisoglou, A. Labropoulos, C.M.Veziri, G. Pilatos, G.E. Romanos, G.N. Karanikolos, N.K. Kanellopoulos, "Structure evolution of Ionic liquid-Carbon Nanotube-Porous Matrix nanocomposites", **Diffusion Fundamentals IV**, Troy, NY, Aug. 21st - 24th, 2011
80. G.N. Karanikolos, E.C. Vermisoglou, G. Pilatos, G.E. Romanos, N.K. Kanellopoulos, "Carbon Nanotube Membranes by Templated Growth in Porous Media", **5<sup>th</sup> International FEZA Conference**, Valencia, Spain, July 3-7, 2011.
81. G.N. Karanikolos, E.C. Vermisoglou, N.K. Kanellopoulos, "Carbon nanotubes with wall-encapsulated magnetic particles as potential drug carriers for directed delivery", **Symposium in Memory of Prof. AC Payiatakis**, Patras, Greece, Dec 17<sup>th</sup>, 2010.
82. G.N. Karanikolos, E.C. Vermisoglou, G. Pilatos, E. Devlin, N.K. Kanellopoulos, "Carbon nanotubes with wall-encapsulated magnetic particles as potential drug carriers for directed delivery", **7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10)**, Ouranoupolis, Greece, July 11-14, 2010.
83. A. Perdikaki, E. Vermisoglou, G.N. Karanikolos, N. Boukos, J. Simitzis, N.K. Kanellopoulos, Amphiphilic block copolymer self-assembled nanotemplates for size- and shape-controlled growth of inorganic nanostructures, **8<sup>th</sup> Hellenic Polymer Society Symposium**, Hersonissos Crete, October 24-29, 2010.
84. M. Palomino, S. Valencia, G.N. Karanikolos, M. Tsapatsis, A. Corma, "Use of microwave heating for the preparation of highly c- oriented AFI films", **Ceramic membranes for green chemical production and clean power generation**, Valencia, Spain, Sep. 8-10, 2010
85. C.M. Veziri, E.C. Vermisoglou, G. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Growth of carbon nanotube membranes using porous templates", **1<sup>st</sup> International Workshop of the European Nanoporous Materials Institute of Excellence (ENMIX)**, Antwerp, October 4-5, 2010.
86. E.C. Vermisoglou, C.M. Veziri, G. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Templated growth of aligned carbon nanotubes on porous supports and membranes", **38<sup>th</sup> Annual Conference of the North American Thermal Analysis Society (NATAS 2010)**, Philadelphia, PA, USA, August 15-18, 2010.

87. C.M. Veziri, M. Palomino, J.A. Stoeger, G.N. Karanikolos, A. Corma, N.K. Kanellopoulos, M. Tsapatsis, "Seeded growth of AFI films and membranes", **5<sup>th</sup> International Zeolite Membrane Meeting (IZMM-5)**, Loutraki, Greece, May 23-26, 2010.
88. E.C. Vermisoglou, G. Pilatos, G.N. Karanikolos, G.E. Romanos, A. Perdikaki, N.K. Kanellopoulos, "Preparation and characterization of carbon nanotube membranes for separation and catalysis", **5<sup>th</sup> International Zeolite Membrane Meeting (IZMM-5)**, Loutraki, Greece, May 23-26, 2010.
89. M. Palomino, S. Valencia, G.N. Karanikolos, M. Tsapatsis, A. Corma, "Synthesis of highly c-oriented AFI films by microwave heating", **5<sup>th</sup> International Zeolite Membrane Meeting (IZMM-5)**, Loutraki, Greece, May 23-26, 2010.
90. E.C. Vermisoglou, G. Pilatos, G.N. Karanikolos, G.E. Romanos, N.K. Kanellopoulos, "Growth and Pore Structure Evaluation of Anodized Alumina – Templated Carbon Nanotube Membranes", **5<sup>th</sup> International Zeolite Membrane Meeting (IZMM-5)**, Loutraki, Greece, May 23-26, 2010.
91. E.C. Vermisoglou, G.E. Romanos, G. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Aligned Carbon Nanotube Supported Alumina Membranes for Gas Separations", **5<sup>th</sup> International Conference on Diffusion in Solids and Liquids (DSL 2009)**, Rome, Italy, June 24-26, 2009.
92. C.M. Veziri, G. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Morphology manipulation of carbon nanostructures on porous supports", **2<sup>nd</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2009)**, Rhodes, Greece, June 28 - July 3, 2009
93. A.V. Perdikaki, E.C. Vermisoglou, G.N. Karanikolos, J. Simitzis, N.K. Kanellopoulos, "Templated synthesis of noble metal nanoparticles", **2<sup>nd</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2009)**, Rhodes, Greece, June 28 - July 3, 2009
94. C.M. Veziri, G.N. Karanikolos, N.K. Kanellopoulos, M. Tsapatsis, "Secondary growth of AFI films and Membranes", **4<sup>th</sup> Panhellenic Symposium of Porous Materials**, Patras, Oct 22-23, 2009
95. E.C. Vermisoglou, G. Pilatos, C.M. Veziri, G.N. Karanikolos, G.E. Romanos, J.W. Nolan, N.K. Kakizis, N.K. Kanellopoulos, "Templated growth of aligned carbon nanotubes on porous supports and membranes", **Euromembrane 2009**, Montpellier, France, Sep. 6-10, 2009
96. A.I. Labropoulos, G.E. Romanos, G. Karanikolos, G.I. Pilatos, N.K. Kanellopoulos, "Investigation of permeation properties during the cyclic CVD treatment of composite membranes with TEOS and TMOS in relation to the locality and morphology of silica deposition", **Euromembrane 2009**, Montpellier, France, Sep. 6-10, 2009
97. G. Pilatos, A.I. Labropoulos, E.C. Vermisoglou, Ch. Veziri, G.E. Romanos, J.W. Nolan, G.N. Karanikolos, N.K. Kanellopoulos, "Innovative combinations of "in situ" and "ex-situ" techniques as a tool for monitoring and controlling the evolution of nanostructured membranes", **Euromembrane 2009**, Montpellier, France, Sep. 6-10, 2009
98. E.C. Vermisoglou, G.N. Karanikolos, G. Pilatos, G.E. Romanos, I. Zafiropoulou, N.K. Kanellopoulos, "Templated Growth of Aligned Carbon Nanotubes in Anodized Alumina", **1st International Workshop of Nanoporous Materials in Energy and Environment (NAPEN)**, Chania, Greece, Oct. 14, 2008.
99. Ch.M. Veziri, G.N. Karanikolos, N.K. Kanellopoulos, M. Tsapatsis, "Oriented Microporous Films by Seeded Growth", **1st International Workshop of Nanoporous Materials in Energy and Environment (NAPEN)**, Chania, Greece, Oct. 14, 2008.
100. G.N. Karanikolos, Ch.M. Veziri, M. Palomino, N.K. Kanellopoulos, M. Tsapatsis, "Seeded growth of AlPO<sub>4-5</sub> and CoAPO-5 films: Control over film morphology and pore orientation", **34<sup>th</sup> International Conference on Micro & Nano Engineering (MNE 08)**, Athens, Greece, Sep. 17, 2008.
101. G.N. Karanikolos, P. Alexandridis, T.J. Mountziaris, "Self-assembled polymeric templates for confined growth of compound semiconductor nanostructures", **34<sup>th</sup> International Conference on Micro & Nano Engineering (MNE 08)**, Athens, Greece, Sep. 17, 2008.
102. E.C. Vermisoglou, G.N. Karanikolos, G. Pilatos, G.E. Romanos, N.K. Kanellopoulos, "Growth and alignment of carbon nanotubes in porous templates", **34<sup>th</sup> International Conference on Micro & Nano Engineering (MNE 08)**, Athens, Greece, Sep. 17, 2008.
103. G.N. Karanikolos, E.C. Vermisoglou, N.K. Kanellopoulos, P. Alexandridis, T.J. Mountziaris, "Amphiphilic Block Copolymer Nanocontainers for Templated Growth of Nanostructures", **1<sup>st</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2008)**, Halkidiki, Greece, June 16, 2008
104. E.C. Vermisoglou, A. Labropoulos, G.E. Romanos, E. Kouvelos, S. Papageorgiou, G.N. Karanikolos, F. Katsaros, N.K. Kanellopoulos, "Hydrogen Storage in Polymer-Assisted Pd-Decorated Single Walled Carbon Nanotubes", **1<sup>st</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2008)**, Halkidiki, Greece, June 16, 2008



105. A.I. Labropoulos, E.C. Vermisoglou, N.K. Kakizis, G.E. Romanos, G.I. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Controlling the Nanostructure of Nanoporous Solids and the Evaluation of their Performance", **1<sup>st</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2008)**, Halkidiki, Greece, June 17, 2008
106. E.C. Vermisoglou, G.N. Karanikolos, G. Pilatos, G.E. Romanos, Ch.M. Veziri, V. Likodimos, N.K. Kanellopoulos, "Templated Growth of Aligned Carbon Nanotubes on Porous Supports", **1<sup>st</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N2008)**, Halkidiki, Greece, June 18, 2008
107. G.N. Karanikolos, H. García, A. Corma, M. Tsapatsis "Continuous c-Oriented AlPO<sub>4</sub>-5 Films by Tertiary Growth", **4<sup>th</sup> International Zeolite Membrane Meeting (IZMM-4)**, Zaragoza, Spain, July 23, 2007
108. G.N. Karanikolos, P. Alexandridis, and T.J. Mountziaris, "Controlled Synthesis of Semiconductor Nanocrystals in Self-Assembled Block Copolymer Templates", **4<sup>th</sup> International Workshop on Nanosciences and Nanotechnologies (NN07)**, Thessaloniki, Greece, July 18, 2007
109. C.M. Veziri, G. Pilatos, G.N. Karanikolos, E. Vermisoglou, K. Kordatos, N.K. Kanellopoulos, "Growth of Oriented Carbon Nanotube Bundles via CVD using Porous Materials as Catalyst Supports", **3<sup>rd</sup> International Workshop on IN-Situ Study and Development of Processes Involving Porous Solids (INSIDE-PORes)**, Alicante, Spain, September 24-26, 2007
110. E.C. Vermisoglou, G. Romanos, V. Tzitzios, G.N. Karanikolos, A. Delimitis, G. Pilatos and N.K. Kanellopoulos, "Synthesis of Nano-Crystalline Gold-Carbon Nanotube Composites and Evaluation of their Sorption and Catalytic Properties", **3<sup>rd</sup> International Workshop on IN-Situ Study and Development of Processes Involving Porous Solids (INSIDE-PORes)**, Alicante, Spain, September 24-26, 2007
111. A.I. Labropoulos, G.E. Romanos, G.N. Karanikolos, F.K. Katsaros, N.K. Kakizis and N.K. Kanellopoulos, "Comparative study of the Rate and Locality of Silica Deposition during the CVD Treatment of Porous Supports with TEOS and TMOS", **3<sup>rd</sup> International Workshop on IN-Situ Study and Development of Processes Involving Porous Solids (INSIDE-PORes)**, Alicante, Spain, September 24-26, 2007
112. A.I. Labropoulos, E.C. Vermisoglou, N.K. Kakizis, G.E. Romanos, G.I. Pilatos, G.N. Karanikolos, N.K. Kanellopoulos, "Advanced Techniques for Monitoring and Optimizing Processes Involving Nanoporous Materials", **17<sup>th</sup> International Offshore and Polar Engineering Conference (ISOPE 2007)**, Lisbon, Portugal, July 1-6, 2007
113. G.N. Karanikolos, P. Alexandridis, T.J. Mountziaris, "Controlled Synthesis of Zinc Selenide Nanostructures using Oil-Water-Amphiphilic Block Copolymer Liquid Crystals", **Materials Research Society (MRS) Spring Meeting**, San Francisco, CA, April 18, 2006
114. Q. Qiu, G.N. Karanikolos, P. Alexandridis, T. Heckler, J. Wang, M. Yasar, A. Petrou, T.J. Mountziaris, "Water-based Synthesis of II-VI Quantum Dots using Microemulsions and Liquid Crystals as Templates", **Materials Research Society (MRS) Fall Meeting**, Boston, MA, November 28, 2006
115. G.N. Karanikolos, P. Alexandridis, Nga-Leung (Vera) Law, Athos Petrou, T.J. Mountziaris, "Templated Synthesis of Compound Semiconductor Nanostructures Using Lyotropic Liquid Crystals", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 05)**, Cincinnati, OH, November 1, 2005
116. B. Kostova, G.N. Karanikolos, Y.G. Kevrekidis, T.J. Mountziaris, "Multiscale Modeling of the Synthesis of Quantum Semiconductor Nanostructures in Templated Media", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 05)**, Cincinnati, OH, November 3, 2005
117. G.N. Karanikolos, Nga-Leung (Vera) Law, P. Alexandridis, T.J. Mountziaris, "Controlled Synthesis of II-VI Semiconductor Nanostructures using Microemulsion and Liquid Crystal Templates", **Materials Research Society (MRS) Spring Meeting**, San Francisco, CA, March 29, 2005
118. B. Kostova, G.N. Karanikolos, Y.G. Kevrekidis, T.J. Mountziaris, "Multi-Scale Modeling of Quantum Dot Synthesis in Microemulsion Templates", **Materials Research Society (MRS) Spring Meeting**, San Francisco, CA, March 31, 2005
119. G.N. Karanikolos, Nga-Leung (Vera) Law, P. Alexandridis, T.J. Mountziaris, "Synthesis of Semiconductor Nanostructures using Microemulsion and Liquid Crystal Templates", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 04)**, Austin, TX, November 12, 2004
120. B. Kostova, G.N. Karanikolos, T.J. Mountziaris, Y.G. Kevrekidis, "Multi-Scale Models of the Synthesis of Compound Semiconductor Nanocrystals (Quantum Dots) using Microemulsions as Templates", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 04)**, Austin, TX, November 11, 2004
121. G.N. Karanikolos, P. Alexandridis, T.J. Mountziaris, "Controlled synthesis of semiconductor nanocrystals and nanorods using microemulsion and liquid crystal templates", **12<sup>th</sup> International Coating Science and Technology Symposium (ISCST)**, Rochester, NY, September 21, 2004

122. G.N. Karanikolos, P. Alexandridis, A. Petrou, T.J. Mountziaris, "Synthesis and Size Control of Luminescent II-VI Semiconductor Nanocrystals by a Novel Microemulsion-Gas Contacting Technique", **Materials Research Society (MRS) Fall Meeting**, Boston, MA, December 4, 2003
123. M. Koutsona, C. Sarigiannidis, G.N. Karanikolos, T.J. Mountziaris, "Vapor-phase synthesis of ZnSe nanoparticles in a counterflow jet reactor", **4<sup>th</sup> Panhellenic Chemical Engineering Conference**, Patras, Greece, May 31, 2003
124. G.N. Karanikolos, J. Wang, C. Sarigiannidis, P. Alexandridis, T.J. Mountziaris, "A novel gas-emulsion synthesis route for ZnSe nanocrystals", **4<sup>th</sup> Panhellenic Chemical Engineering Conference**, Patras, Greece, May 31, 2003
125. G.N. Karanikolos, P. Alexandridis, T.J. Mountziaris, "Synthesis and Size Control of Luminescent II-VI Semiconductor Nanocrystals by a Novel Microemulsion-Gas Contacting Technique", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 03)**, San Francisco, CA, November 21, 2003
126. B. Kostova, T. Lee, G.N. Karanikolos, T.J. Mountziaris, and I.G. Kevrekidis, "Multi-Scale Modeling of Quantum Dot Synthesis in Microemulsions", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 03)**, San Francisco, CA, November 19, 2003
127. M. Koutsona, C. Sarigiannidis, G.N. Karanikolos, T.J. Mountziaris, "Vapor-Phase Synthesis of ZnSe Nanoparticles", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 02)**, Indianapolis, IN, November 8, 2002
128. G.N. Karanikolos, J. Wang, C. Sarigiannidis, D.M. Hess, P. Alexandridis, T.J. Mountziaris, "Synthesis and Functionalization of ZnSe Nanocrystals in a Gas-Liquid Reactor", **Annual Meeting of the American Institute of Chemical Engineers (AIChE 02)**, Indianapolis, IN, November 7, 2002.