

CURRICULUM VITAE

FAMILY NAME : Steriotis
FIRST NAME : Theodore
FATHER'S NAME: Aristoteles
ADDRESS : Parodos Tsakalof 1, 18533 Profitis Elias, Pireas, Greece
TEL.: +301 6503614 (office), +30 210 6503636 (lab), +30 6945 360928 (mob.)
E-MAIL : tster@chem.demokritos.gr
DATE OF BIRTH : 30-01-1966

Education

- 1998: Ph. D., Chemistry Department, National & Kapodistrian University of Athens-Greece
Thesis Title "Study of Single Phase Relative Permeability in Alumina and Carbon Membranes"
1989: Bachelors, Chemistry Department, National & Kapodistrian University of Athens-Greece

Current Position

- Research Director - Institute of Advanced Materials, Physicochemical Processes, Nanotechnology and Microsystems (IAMPPNM), National Center for Scientific Research "Demokritos"-15310 Ag. Paraskevi Attikis, Athens-Greece

Professional Experience

- 1990 - 2005: Research Associate, Institute of Physical Chemistry, National Center for Scientific Research "Demokritos", Athens - Greece
2005 - 2010: Senior Researcher, Institute of Physical Chemistry, National Center for Scientific Research "Demokritos", Athens - Greece
2010 - today Research Director - Institute of Advanced Materials, Physicochemical Processes, Nanotechnology and Microsystems, National Center for Scientific Research "Demokritos, Athens-Greece

Research Interests

- Porous materials, membranes (Inorganic – Polymeric) and nanocomposites for environmental & energy applications.
- Gas Separations and Storage (specific interest in H₂ and CO₂), Controlled delivery of substances.
- Neutron Scattering, Adsorption, Diffusion, Molecular modelling.
- Hydrogen storage technologies.

Key professional activities

- Head of Scientific Council of the Inst. Physical Chemistry, NCSR "Demokritos" (2007-2012)
- Greek National Contact Point for FP7 Theme 6 "Environment" (including Climate Change) (2007-2013)
- Member of the Helmholtz-Zentrum-Berlin (former Hahn-Meitner Institute) Scientific Committee (2007-today)
- Extensive experience on planning, preparation, implementation and management of research projects

- Participation in more than 30 national, European and international projects.
- Co-ordinator of the completed FP6 STREP European project “HYCONES” (Contract No. NMP3-CT-2006-032970) aiming at the development and H₂ storage assessment of a new advanced carbonaceous material.
- Assistant coordinator of FP6-SES (Contract no: IP SES6-518271) 2005-2010: Integrated Project “Novel Efficient Solid Storage for Hydrogen” (NESSHY)
- Leader of the project “Hydrogen storage in metal doped carbons” of the IEA (International Energy Agency) Task 22/32.
- Current involvement in the running EC projects:
 - FP7-INFRASTRUCTURES-2011-1: H2FC - Integrating European Infrastructure to support science and development of Hydrogen- and Fuel Cell Technologies towards European Strategy for Sustainable, Competitive and Secure Energy (Grant Agreement No 284522, 2011-2015).
 - FP7/FCH-JU-2011-1: BOR4STORE - Fast, reliable and cost effective boron hydride based high capacity solid state hydrogen storage materials (Grant Agreement No 303428, 2012-2015).
 - FP7-PEOPLE-2009-IAPP: ATLAS-H2 - Advanced Metal Hydride Tanks for Integrated Hydrogen Applications (Grant 251562, 2010-2014).
 - Greek delegate in COST Action MP1103 - Nanostructured materials for solid-state hydrogen storage (2011-2015).
 - Marie Curie ITN ECOSTORE - "Novel Complex Metal Hydrides for Efficient and Compact Storage of Renewable Energy as Hydrogen and Electricity" (2013 - 2017).
 - Marie Curie IAPP: GLOW: New weather-stable low gloss powder coatings based on bifunctional acrylic solid resins and nanoadditives (2013-2017).
- Extensive networking activities and collaborations with European/international R&D organizations
 - Helmholtz Zentrum Berlin für Materialien und Energie (τέως Hahn Meitner Institut) - Berlin Neutron Scattering Center –Germany.
 - Centre de Recherche sur la Matière Divisée, Faculté des Sciences – Physique, Université d'Orléans – France.
 - Institut de Minéralogie et Physique des Milieux Condensés, Université Paris 6, Université Paris 7, CNRS-UMR Xxx, IGP, Paris – France.
 - IFE, Institute For Energy Technology, Norway.
 - C.N.R., Rome – Italy.
 - Institut Charles Gerhardt Montpellier UMR 5253 CNRS-UM2, Agrégats, Interfaces et Matériaux pour l’Energie, Montpellier – France.
 - Instituto de Ciencia de Materiales de Madrid, ICMM, CSIC, Madrid – Spain.
 - Dept. of Drug Delivery Technology, Leiden/Amsterdam Center for Drug Research, University of Leiden - Netherlands.
 - Technische Universität Berlin – Germany.
 - Institut für Physik, Universität Leipzig.
 - Dept. of Pharmaceutics, University of Kuopio – Finland.
 - National Renewable Energy Laboratory (NREL) – USA.
 - Groupe Intermétalliques et Interstitiels – Conversion de l’Energie, Centre National de la Recherche Scientifique (CNRS) – France.
 - Max-Planck Institute for Intelligent Systems, Stuttgart – Germany.
 - Chemistry Department - Aarhus University – Denmark.
 - Hystore Technologies Ltd – Cyprus.
 - McPhy Energy S.A. – France.
- Teaching experience:
 - Supervision and co-supervision of 5 Post-Doc fellows, 15 PhD students and appr.10 under/post graduate students.

- Courses in the Summer Schools organised by the NCSR “Demokritos”.
- Invited Reviewer:
 - European Commission, NMP Theme (FP6, FP7).
 - Science and Technology Foundation- Portugal (Fundação para a Ciência e a Tecnologia - FCT).
 - Research Promotion Foundation of Cyprus.
 - European Science Foundation (ESF-EUROCORES).
 - Operational Programme Research and Development for Innovation 2007 – 2013 OP RDI, Call Nos. 1.1 and 2.2- The Czech Republic Ministry of Education, Youth and Sports, 2010.
 - Greek General Secretariat for Research and Technology.
 - European Science Foundation, External Peer Review for Research Centres in Portugal (2014)
- Referee for a great number of scientific journals (Phys. Chem. B, Langmuir, AIChE J., Carbon, Microporous Mesoporous Materials, Advanced Materials, Adsorption, etc.)
- Patent: A. Bourlinos, Th. Steriotis, Th. Stubos, M. Miller, Carbon material for Hydrogen Storage, (12/272,488), US Patent Application 20100125038 (filed on Nov. 17, 2008 Published on May 20, 2010).

Publications

- Co-author of book chapters:
 - 10 chapters in international editions.
- More than 90 publications in international peer-reviewed journals (Citations 753, h-index 14).
- Participation in Conferences:
 - Presentation of more than 100 papers (oral presentations and posters) in national and international conferences and workshops.
 - More than 30 invited lectures.

Detailed list of publications

A. Book Chapters

1. A.K. Stubos, A. Mitropoulos, Th. A. Steriotis, F.K. Katsaros, G. Romanos, N. Kanellopoulos, "Ceramic Membranes: Industrial Applications", in "Physical Adsorption: Experiment, Theory and Applications", **NATO ASI Series**, Ed. J. Fraissard, Kluwer Academic Publishers, The Netherlands, 485-510 (1997).
2. A.K. Stubos, Th. A. Steriotis, A. Mitropoulos, G. Romanos, N. Kanellopoulos, "Inorganic Membranes: Pore Structure Characterisation", "Physical Adsorption: Experiment, Theory and Applications", **NATO ASI Series**, Ed. J. Fraissard, Kluwer Academic Publishers, The Netherlands, 461-484 (1997).
3. Th. A. Steriotis, K.L. Stefanopoulos, A.Ch. Mitropoulos, N. K. Kanellopoulos, "Membrane Characterization by Combination of Static and Dynamic Techniques" pp 1-34, in *Recent Advances in Gas Separation by Microporous Ceramic Membranes*, Volume 6 in **Membrane Science and Technology Series**, Edited by N.K. Kanellopoulos ELSEVIER Science (2000).
4. G.Ch. Charalambopoulou, Th.A. Steriotis, K.L. Stefanopoulos, E. S. Kikkinides and A. K. Stubos, The combination of neutron scattering techniques for the study of hydration of porcine stratum Corneum, **The Essential Stratum Corneum**, Edited by R. Marks, J.-L. Lévêque and R. Voegeli, Martin Dunitz Ltd, London U.K., 2002.
5. Th.A. Steriotis, .Ch. Charalambopoulou, A. K. Stubos and N.K. Kanellopoulos, Permeation and sorption studies of water transport in stratum corneum, **The Essential Stratum Corneum**, Edited by R. Marks, J.-L. Lévêque and R. Voegeli, Martin Dunitz Ltd, London U.K., 2002

6. K. Beltsios, Th. Steriotis, K. Stefanopoulos, N. Kanellopoulos "Membrane Technology", Chapter in **Handbook of porous solids** ed. By F. Schüth, K Sing, J. Weitkamp, pp 2281-2433, Wiley-VCH, Weinheim, 2002.
7. Samios, S.; Papadopoulos, G.; Steriotis, Th.A. & Stubos, A.K.: Simulation study of sorption of CO₂ and N₂ with application to the characterization of carbon adsorbents, in "**Adsorption and Transport at the Nanoscale**", Ed. N. Quirke, CRC Press – Taylor & Francis Group, 2006.
8. N. I. Papadimitriou, I. N. Tsimpanogiannis, A. G. Yiotis, Th. A. Steriotis, A. K. Stubos, in **Physics and Chemistry of Ice**, edited by W. F. Kuhs, RSC, Cambridge, UK, 2007
9. Steriotis Th.A., Charalambopoulou G.C., Stubos A.K.: Advanced Materials for Hydrogen Storage in "**Nanoporous Materials: Advanced Techniques for Characterization, Modeling, and Processing**", Ed. N. Kanellopoulos, CRC Press, 2011
10. Maria Konstantakou, Anastasios Gotzias, Michael Kainourgiakis, Athanasios K. Stubos and Theodore A. Steriotis: **GCMC Simulations of Gas Adsorption in Carbon Pore Structures in Applications of Monte Carlo Method in Science and Engineering**, Ed. Shaul Mordechai, InTech, 2011

B. Refereed Journals

11. Th.A. Steriotis, F.K. Katsaros, A.Ch. Mitropoulos, A.K. Stubos and N. K. Kanellopoulos, "Characterisation of Porous Solids by Simplified Gas Relative Permeability Measurements" *Journal of Porous Materials*, **2**, 73-77 (1995).
12. Th.A. Steriotis, F.K. Katsaros, A. Ch. Mitropoulos, A. K. Stubos, P. Galiatsatou, N. Zouridakis, N. K. Kanellopoulos "Novel design for High Pressure, Integral, Differential, Absolute and Relative Multi-Component Permeability Measurements", *Review of Scientific Instruments*, **67**, 7, 2545-2548 (1996).
13. Ch. Mitropoulos, J. M. Haynes, R. M. Richardson, Th. A. Steriotis, A.K. Stubos, N.K. Kanellopoulos. "Water Adsorption and Small Angle X-Ray Scattering Studies on the Effect of Coal Thermal Treatment", *Carbon*, **34**, 6, 775-781 (1996).
14. A.Ch. Mitropoulos, Th. A. Steriotis, F.K. Katsaros, K.P. Tzevelekos, N.K. Kanellopoulos, U. Keiderling, A. Sturm and A. Wiedenmann, "Neutron scattering from water adsorbed on an alumina membrane" *Journal of Membrane Science* **129**, 289-295 (1997).
15. Th.A. Steriotis, A.Ch. Mitropoulos, N.K. Kanellopoulos, U. Keiderling and A. Wiedenmann "Characterisation of an alumina membrane by Neutron Scattering and other techniques", *Physica B*, **234-236**, 1016-1018 (1997).
16. Th.A. Steriotis, A.K. Stubos, A.Ch. Mitropoulos, N.K. Kanellopoulos, "Membrane Pore Structure Characterisation in Relation to Gas Flow Properties", *Russ. J. Phys. Chem. (Zh. Fiz. Khim.)* **71** (9), 1393-1395 (1997).
17. Th.A. Steriotis, F.K. Katsaros, A.K. Stubos, A. Ch. Mitropoulos and N.K. Kanellopoulos "A novel experimental technique for the measurement of the single-phase gas relative permeability of porous solids", *Measurements Science and Technology*, **8**, 168-173 (1997).
18. Th.A. Steriotis, K. Beltsios, A. Ch. Mitropoulos, N. K. Kanellopoulos, U. Keiderling, and A. Wiedenmann "On the structure of an asymmetric carbon membrane from a novolac resin precursor", *Journal of Applied Polymer Science*, **64**, 2323-2346 (1997).
19. F.K. Katsaros., Th. A. Steriotis, A. K. Stubos, A. Ch. Mitropoulos, N. K. Kanellopoulos, and S. Tennison "High Pressure Gas Permeability of Microporous Carbon Membrane", *Microporous Materials*, **8** (No3-4), 171-176 (1997).
20. A.Ch. Mitropoulos, K. Beltsios, Th. A. Steriotis, F. K. Katsaros, P. Makri and N. K. Kanellopoulos "The combination of equilibrium and dynamic methods for the detailed structural characterisation of ceramic membranes" *Journal of the European Ceramic Society*, **18**, 1545-1558 (1998).
21. G.Ch. Charalambopoulou, Th.A. Steriotis, A.Ch. Mitropoulos, K.L. Stefanopoulos, N. K. Kanellopoulos, A. Ioffe "Investigation Of water sorption on Porcine Stratum Corneum by Very Small Angle Scattering", *Journal of Investigative Dermatology*, **110**, 988 (1998).
22. P. K. Makri, G. Romanos, Th. A. Steriotis, N. K. Kanellopoulos, A. Ch. Mitropoulos, "Diffusion in a fractal system", *Journal of Colloid and Interface Science*, **206**, 605 (1998).

23. E.S. Kikkinides, Th.A. Steriotis, A.K. Stubos, K.L. Stefanopoulos, A.Ch. Mitropoulos, N.K. Kanellopoulos, "Structural Characterisation and applications of ceramic membranes for gas separations", *Studies in Surface Sci. Catalysis*, **128**, 429 (2000).
24. F.K Katsaros, Th.A. Steriotis, K.L. Stefanopoulos, N.K. Kanellopoulos, A.Ch. Mitropoulos, A. Hoser and M. Meissner, "Neutron Diffraction Study of Adsorbed CO₂ on a Carbon Membrane", *Physica B*, **276-278**, 901 (2000).
25. G.Ch. Charalambopoulou, Th.A. Steriotis, K.L. Stefanopoulos, A.Ch. Mitropoulos, N.K. Kanellopoulos, A. Loffe, U. Keiderling, "Investigation of Lipid Organization on Stratum Corneum by Water Absorption in Conjunction with Neutron Scattering", *Physica B*, **276-278**, 530-531 (2000).
26. K.L. Stefanopoulos, G. Ch. Charalambopoulou, Th. A. Steriotis, A.Ch. Mitropoulos, N.K. Kanellopoulos, A Th. Papaioannou and A. Loffe, "Investigation of temperature effect on Porcine Stratum Corneum by Very Small Angle Neutron Scattering", *Journal of Controlled Release*, **64**, 337-338 (2000).
27. K.L. Stefanopoulos, K. Beltsios, P.K. Makri, Th. A. Steriotis, A.Ch. Mitropoulos and N.K. Kanellopoulos, "Characterization of the flow properties in Vycor by combining dynamic and scattering techniques", *Physica B*, **276-278**, 477 (2000).
28. M.E. Kainourgiakis, E.S. Kikkinides, Th.A. Steriotis, A.K. Stubos, K.P. Tzevelekos, and N.K. Kanellopoulos. 'Structural and Transport Properties of Alumina Porous Membranes from Process-Based and Statistical Reconstruction Techniques', *Journal of Colloid and Interface Science*, **231** (1), 158-167(2000).
29. S. Kallus, P. Langlois, G.E. Romanos, Th.A. Steriotis, E.S. Kikkinides, N.K. Kanellopoulos, J.D.F. Ramsay, "Zeolite membranes—Characterisation and Application in gas separations", *Studies in Surface Sci. Catalysis*, **128**, 467 (2000).
30. Th.A. Steriotis, K. Beltsios, A.Ch. Mitropoulos, N.K. Kanellopoulos, A. Wiedenmann and U. Keiderling, "SANS Structural Study of a Microporous Carbonized Resole" *Physica B*, **276-278**, 903 (2000).
31. G.Ch. Charalambopoulou, Th.A. Steriotis, K.L. Stefanopoulos, A.K. Stubos, N.K. Kanellopoulos, A.Ch. Mitropoulos, T. Hauss, "Membrane Neutron Diffraction: A promising technique for Stratum Corneum Structural Studies", *J. of Controlled Release*, **72**, 307 (2001).
32. G.E. Romanos, Th.A. Steriotis, E.S. Kikkinides, N.K. Kanellopoulos, J.D.F. Ramsay, P. Langlois and S. Kallus, "Innovative methods for preparation and testing of Al₂O₃ supported silicalite-1 membranes" *J. of European Ceramic Society*, **21** (2), 119-126 (2001).
33. S. Samios, G.K. Papadopoulos, Th.A. Steriotis, A.K. Stubos, "Simulation Study of Sorption of CO₂ and N₂ with Application to the Characterization of Carbon Adsorbents", *Molecular Simulation*, **27**, 441-456 (2001).
34. E. Soterakou, K. Beltsios, Th.A. Steriotis, N. Kanellopoulos, "Asymmetric Inorganic Membranes Through Langmuir-Blodgett Deposition and Plasma Processing" *J. of Porous Materials*, **8**, 251-264 (2001).
35. M. Kainourgiakis, E. Kikkinides, Th. A. Steriotis, A. Stubos, "Adsorption and Diffusion in Nanoporous Materials from Stochastic and Process-Based Reconstruction Techniques" *Colloids and Surfaces A*, **206**, 321-334 (2002).
36. Th.A. Steriotis, K. L. Stefanopoulos, U. Keiderling, A. De Stefanis and A. A. G. Tomlinson, "Characterisation of pillared clays by contrast-matching small-angle neutron scattering", *Chemical Communications*, 2396-2397 (2002).
37. E.S. Kikkinides, K.L. Stefanopoulos, Th.A. Steriotis, A.Ch. Mitropoulos, N.K. Kanellopoulos and W. Treimer, "Combination of SANS and 3D Stochastic Reconstruction Techniques for the Study of Equilibrium and Dynamic Properties of Nanostructured Materials", *Applied Physics A*, **74**, s954-956 (2002).
38. G.K. Charalambopoulou, Th.A. Steriotis, T. Hauß, K.L. Stefanopoulos and A.K. Stubos, "A Neutron Diffraction Study of Hydration Effect on Stratum Corneum", *Applied Physics A*, **74**, s1245-1247 (2002).
39. Th.A. Steriotis, K.L. Stefanopoulos, A.Ch. Mitropoulos, N.K. Kanellopoulos, A. Hoser and M. Hofmann, "Structural Studies of Supercritical CO₂ in Confined Space", *Applied Physics A*, **74**, s1333-1335 (2002).

40. Th.A. Steriotis, G.K. Papadopoulos, A. K. Stubos, N. Kanellopoulos, "A Monte Carlo Study on the Structure of Carbon Dioxide Adsorbed in Microporous Carbons" *Stud. Surf. Sci. & Catalysis*, **144**, 545-552 (2002).
41. A. De Stefanis, A.A.G. Tomlinson, Th. A. Steriotis, K.L. Stefanopoulos, and U. Keiderling, "Nanostructures of the montmorillonite-derived restructured clays K10[®], HMO and the Mg²⁺ exchanged analogue Mg-HMO. A SANS, N₂ sorption and XRPD study", *Journal of Materials Chemistry*, **13**, 1145-1148 (2003).
42. J. Pieper, G. Charalambopoulou, Th. Steriotis, S. Vasenkov, A. Desmedt and R.E. Lechner, "Water diffusion in fully hydrated porcine stratum Corneum", *Chemical Physics* **292**, 465-476 (2003).
43. E. Pantatosaki, D. Psomadopoulos, Th. A. Steriotis, A. K. Stubos, A. Papaioannou, and G. K. Papadopoulos, "Micropore Size Distributions from CO₂ using Grand Canonical Monte Carlo at ambient temperatures: Cylindrical vs. Slit pore geometries", *Colloids and Surfaces A*, **241**, 127-135 (2004).
44. Th. A. Steriotis, K. L. Stefanopoulos, N.K. Kanellopoulos, A.Ch. Mitropoulos and A. Hoser, "The structure of adsorbed CO₂ in carbon nanopores; A neutron diffraction study" *Colloids and Surfaces A*, **241**, 239-244 (2004).
45. Th. A. Steriotis, E. Kikkinides, M. Kainourgiakis, A. Stubos, J.D.F. Ramsay, "Monitoring Adsorption by Small Angle Neutron Scattering in Tandem with Digital Reconstruction-Simulation Techniques" *Colloids and Surfaces A*, **241**, 231-237 (2004).
46. A. N. Galani, M. E. Kainourgiakis, E. S. Kikkinides, Th. A. Steriotis, A. K. Stubos, A. Papaioannou, Diffusion in reconstructed porous domains filled by two fluid phases, *Colloids and Surfaces A*, **241**, 273-279 (2004).
47. A. De Stefanis, A.A.G. Tomlinson, Th.A. Steriotis, K.L. Stefanopoulos and U. Keiderling, Nanostructural Characterization of Catalysts by SANS, *Physica B*, **350**, E521-E524 (2004).
48. K.L. Stefanopoulos, Th.A. Steriotis, A.Ch. Mitropoulos, N.K. Kanellopoulos, W. Treimer, Characterization of porous materials by combining mercury porosimetry and scattering techniques, *Physica B* **350**, E525-E527 (2004).
49. G. Ch. Charalambopoulou, Th. A. Steriotis, Th. Hauss, A. K. Stubos and N. K. Kanellopoulos, Structural alterations of fully hydrated human stratum Corneum, *Physica B*, **350**, E603-E606 (2004).
50. A. Bakandritsos, Th. Steriotis and D. Petridis, "High Surface Area Montmorillonite-Carbon Composites and Derived Carbons", *Chem. Mater.* **16**, 1551-1559 (2004).
51. M. Kargol, J. Zajac, D. J. Jones, Th. Steriotis, J. Rozière and P. Vitse, Porous Silica Materials Derivatized with Cu and Ag Cations for Selective Propene-Propane Adsorption from the Gas Phase: Aluminosilicate Ion-Exchanged Monoliths, *Chem. Mater.*, **16**, 3911-3918 (2004).
52. K. A. Stoitsas, A. Gotzias, E.S. Kikkinides, Th. A. Steriotis, N.K. Kanellopoulos, M. Stoukides, V.T. Zaspalis, Porous Ceramic Membranes for Propane-Propylene Separation via the π -complexation Mechanism; Unsupported systems, *Microporous and Mesoporous Materials* **78**, 235-243 (2005).
53. A. Bakandritsos, E. Kouvelos, Th. Steriotis, D. Petridis, Aqueous and Gaseous Adsorption from Montmorillonite-Carbon Composites and from Derived Carbons, *Langmuir*, **21(6)**, 2349-2355 (2005).
54. M.E. Kainourgiakis, Th. A. Steriotis, E.S. Kikkinides, G.Ch. Charalambopoulou, J.D.F. Ramsay, A.K. Stubos, Combination of small angle neutron scattering data and mesoscopic simulation techniques as a tool for the structural characterization and prediction of properties of bi-phasic media, *Chemical Physics* **317**, 298-311(2005).
55. M. Kargol, J. Zajac, D. J. Jones, J. Rozière, Th. Steriotis, A. Jiménez-López and E. Rodríguez-Castellón, Copper- and Silver-Containing Monolithic Silica-Supported Preparations for Selective Propene-Propane Adsorption from the Gas Phase, *Chem. Mater.*, **17**, 6117-6127 (2005).
56. S.S. Makridis, M. Konstantakou, Th.A. Steriotis, K.G. Efthimiadis, E. Pavlidou, E.S. Kikkinides, A.K. Stubos, "Structural and magnetic properties of rare earth-transition metal compounds for hydrogen storage materials" *Journal of Alloys and Compounds*, **404-406**, 216-219 (2005).
57. S. S. Makridis, M. Konstantakou, Th. A. Steriotis, E. Pavlidou, K. G. Efthimiadis, M. Daniil, A. Ioannidou, E. S. Kikkinides, A. K. Stubos, "Structural and Magnetic Properties of New Zr(Fe_{0.8}Cu_{0.2})₂ and Zr(Fe_{0.8}Cu_{0.1}Co_{0.1})₂ Hydrogen Storage Materials", *Materials Science Forum* **514-516**, 432-436 (2006).

58. S. S. Makridis, C. Christodoulou, M. Konstantakou, Th. A. Steriotis, M. Daniil, A. Ioannidou, E. S. Kikkinides, A. K. Stubos, "Intermetallic Hydrides Based on (Zr-Ti)(Fe-Cr)₂ Type of Compounds", *Materials Science Forum* **514-516**, 666-671 (2006).
59. E. S. Kikkinides, M. Konstantakou, M. C. Georgiadis, Th. A. Steriotis, A. K. Stubos, "Multiscale Modeling and Optimization of H₂ Storage Using Nanoporous Adsorbents", *AIChE Journal*, **52 (8)**, 2964-2977 (2006).
60. J.D.F. Ramsay, M. Kainourgiakis, Th. A. Steriotis, A.K. Stubos, "Digital reconstruction of silica gels based on small angle neutron scattering data" *Stud. Surf. Sci. & Catalysis*, **160**, 137-144 (2006).
61. E.S. Kikkinides, K.L. Stefanopoulos, Th.A. Steriotis, A.Ch. Mitropoulos and N.K. Kanellopoulos, "Characterisation of nanostructured materials by combination of neutron scattering and 3D stochastic reconstruction techniques" *Stud. Surf. Sci. & Catalysis*, **160**, 415-422 (2006).
62. M. Konstantakou, S. Samios, Th. A. Steriotis, M. Kainourgiakis, G. K. Papadopoulos, E. S. Kikkinides and A.K. Stubos, "Determination of pore size distribution in microporous carbons based on CO₂ and H₂ sorption data", *Stud. Surf. Sci. & Catalysis*, **160**, 543-550 (2006).
63. F. K. Katsaros, Th.A. Steriotis, A.K. Stubos, N.K. Kanellopoulos and S.R. Tennison, "Effect of activation process on resin based activated carbons", *Stud. Surf. Sci. & Catalysis*, **160**, 599-606 (2006).
64. E. Kouvelos, K. Kesore, T. Steriotis, H. Grigoropoulou, D. Bouloubasi, N. Theophilou, S. Tzintzos, N. Kanellopoulos, "High pressure N₂/CH₄ adsorption measurements in clinoptilolites", *Microporous and Mesoporous Materials*, **99**, 106-111 (2007).
65. F.K. Katsaros, Th.A. Steriotis, G.E. Romanos, M. Konstantakou, A.K. Stubos, N.K. Kanellopoulos, "Preparation and characterisation of gas selective microporous carbon membranes", *Microporous and Mesoporous Materials*, **99**, 181-189 (2007)
66. A. Lambropoulos, G. Romanos, Th. Steriotis, J. Nolan, F. Katsaros, E. Kouvelos, G. Charalambopoulou, N. Kanellopoulos, "Application of an innovative mercury intrusion technique and relative permeability to examine the thin layer pores of sol-gel and CVD post-treated membranes" *Microporous and Mesoporous Materials*, **99**, 206-215 (2007).
67. A. De Stefanis, A.A.G. Tomlinson, Th.A. Steriotis, G.Ch. Charalambopoulou, U. Keiderling, "Study of structural irregularities of smectite clay systems by Small-Angle Neutron Scattering and adsorption", *Applied Surface Science*, **253**, 5633-5639(2007).
68. M. Konstantakou, Th.A. Steriotis, G.K. Papadopoulos, M. Kainourgiakis, E.S. Kikkinides, A.K. Stubos, "Characterization of nanoporous carbons by combining CO₂ and H₂ sorption data with the Monte Carlo simulations", *Applied Surface Science*, **253** 5715-5720 (2007).
69. A.B. Bourlinos, Th. A. Steriotis, M. Karakassides, Y. Sanakis, V. Tzitzios, C. Trapalis, E. Kouvelos, A. Stubos, "Synthesis, characterization and gas sorption properties of a molecularly-derived graphite oxide-like foam", *Carbon*, **45 (4)**, 852-857 (2007).
70. A. Bakandritsos, A.B. Bourlinos, V. Tzitzios, N. Boukos, E. Devlin, T. Steriotis, V. Kouvelos, D. Petridis, "Biopolymer networks for the solid-state production of porous magnetic beads and wires", *Advanced Functional Materials* **17 (8)**, 1409-1416 (2007).
71. A. Lambropoulos, G. E. Romanos, T. A. Steriotis, J. Nolan, F. K. Katsaros, E. Kouvelos, N. K. Kanellopoulos, "Development of an innovative mercury intrusion technique to examine defects plugging after CVD treatment of NF composite membranes", *J Porous Mater*, **15**, 83-91 (2008).
72. Th. A. Steriotis, K. L. Stefanopoulos, F. K. Katsaros, R. Gläser, A. C. Hannon and J. D. F. Ramsay, "In situ neutron diffraction study of adsorbed carbon dioxide in a nanoporous material: Monitoring the adsorption mechanism and the structural characteristics of the confined phase", *Phys. Rev. B* **78**, 115424 (1-10) (2008).
73. A. Bourlinos, Th. Steriotis, R. Zboril, V. Georgakilas and A. Stubos, "Direct synthesis of carbon nanosheets by the solid-state pyrolysis of betaine", *J. Mater. Sci.* **44**, 1407-1411 (2009).
74. C. Zlotea, P. Moretto, Th. Steriotis, "A round robin characterisation of the hydrogen sorption properties of a carbon based material", *Int. Journal of Hydrogen Energy*, **34**, 3044-3057 (2009).
75. A.B. Bourlinos, V. Georgakilas, R. Zboril, T.A. Steriotis, A.K. Stubos, C. Trapalis, "Aqueous-phase exfoliation of graphite in the presence of polyvinylpyrrolidone for the production of water-soluble graphenes", *Solid State Communications*, **149**, 2172-2176 (2009).

76. A.B. Bourlinos, V. Georgakilas, R. Zboril, Th.A. Steriotis, A.K. Stubos, Liquid-Phase Exfoliation of Graphite Towards Solubilized Graphenes, *Small*, **5(16)**, 1841-1845 (2009).
77. A. Gotzias, H. Heiberg-Andersen, M. Kainourgiakis, Th. Steriotis, Grand Canonical Monte Carlo Simulations of Hydrogen Adsorption in Carbon Cones, *Appl. Surf. Sci.*, **256(17)**, 5226-5231 (2010)
78. M. Kainourgiakis, Th. Steriotis, G. Charalambopoulou, M. Strobl, A. Stubos, Determination of the spatial distribution of multiple fluid phases in porous media by USANS, *Appl. Surf. Sci.*, **256 (17)**, 5329-5333 (2010).
79. V. Georgakilas, A.B. Bourlinos, R. Zboril, Th. A. Steriotis, P. Dallas , A.K. Stubos, Ch. Trapalis, Organic functionalisation of graphenes, *Chem. Commun.* **46 (10)**, 1766-1768 (2010).
80. R. Zbořil, F. Karlický, A.B. Bourlinos, Th.A. Steriotis, A.K. Stubos, V. Georgakilas, K. Šafářová, D. Jančík, Ch. Trapalis, M. Otyepka, Graphene Fluoride: A Stable Stoichiometric Graphene Derivative and its Chemical Conversion to Graphene, *Small* **6(24)**, 2885–2891, (2010)
81. M. Konstantakou, Th. Steriotis, E. Kikkinides, A. Stubos, "Monte Carlo simulations of CO₂ sorption in nanoporous carbons", *Special Topics and Reviews in Porous Media* **1(3)**, 205-213 (2010).
82. A.B. Bourlinos, M.A. Karakassides, P. Stathi, Y. Deligiannakis, R. Zboril, P. Dallas, T.A. Steriotis, A.K. Stubos, C. Trapalis, Pyrolytic formation of a carbonaceous solid for heavy metal adsorption, *Journal of Materials Science*, **46(4)** 975-982 (2011).
83. G.M. Psafogiannakis, Th.A. Steriotis, A.B. Bourlinos, E.P. Kouvelos, G.Ch. Charalambopoulou, A.K. Stubos, G.E. Froudakis, "Enhanced hydrogen storage by spillover on metal-doped carbon foam: an experimental and computational study", *Nanoscale*, **3**, 933-936 (2011).
84. A. Gotzias, H. Heiberg-Andersen, M. Kainourgiakis, Th. Steriotis, A grand canonical Monte Carlo study of hydrogen adsorption in carbon nanohorns and nanocones at 77 K, *Carbon* **49**, 2715-2724 (2011).
85. G.E. Romanos, V. Likodimos, R.R.N. Marques, T.A. Steriotis, S.K. Papageorgiou, J.L. Faria, J.L. Figueiredo, A.M.T. Silva, P. Falaras, Controlling and quantifying oxygen functionalities on hydrothermally and thermally treated single-wall carbon nanotubes, *Journal of Physical Chemistry C*, **115(17)**, 8534-8546 (2011).
86. D. Giasafaki, A. Bourlinos, G. Charalambopoulou, A. Stubos, Th. Steriotis, Nanoporous carbon - metal composites for hydrogen storage, *Cent. Eur. J. Chem.* **9(5)**, 948-952 (2011).
87. A. Ampoumogli, Th. Steriotis, P. Trikalitis, D. Giasafaki, E.G. Bardaji, M. Fichtner, G. Charalambopoulou, Nanostructured composites of mesoporous carbons and boranates as hydrogen storage materials, *Journal of Alloys and Compounds*, **509S** , S705– S708 (2011)
88. A.B. Bourlinos, R. Zbořil, M. Kubala, P. Stathi, Y. Deligiannakis, M.A. Karakassides, T.A. Steriotis, A.K. Stubos, Fabrication of fluorescent nanodiamond@C core-shell hybrids via mild carbonization of sodium cholate-nanodiamond complexes, *Journal of Materials Science*, **46(24)** 7912-7916 (2011).
89. F K Katsaros, Th A Steriotis, K L Stefanopoulos, N K Kanellopoulos, A C Hannon, J D F Ramsay, Structural characterisation of subcritical carbon dioxide confined in nanoporous carbon by in situ neutron diffraction, *Journal of Physics: Conf. Ser.* **340**, 012046 (2012)
90. K L Stefanopoulos, Th A Steriotis, F K Katsaros, N K Kanellopoulos, A C Hannon and J D F Ramsay, Structural study of supercritical carbon dioxide confined in nanoporous silica by in situ neutron diffraction, *Journal of Physics: Conf. Ser.* **340**, 012049 (2012)
91. D. Giasafaki, A. Bourlinos, G. Charalambopoulou, A. Stubos, Th. Steriotis, Synthesis and characterisation of nanoporous carbon-metal composites for hydrogen storage, *Microporous and Mesoporous Materials* **154**, 74–81 (2012).
92. A.A. Sapalidis, F.K. Katsaros, Th.A. Steriotis, N.K. Kanellopoulos, Properties of poly(vinyl alcohol)-Bentonite clay nanocomposite films in relation to polymer-clay interactions, *Journal of Applied Polymer Science* **123** (3), pp. 1812-1821 (2012).
93. G. Lelong, R. Heyd, G. Charalambopoulou, T. Steriotis, A. Brandt, K. Beck, M. Vayer, D.L. Price, J.W.f Brady, M.-L. Saboungi, Role of glucose in enhancing stability of aqueous silica gels against dehydration, *Journal of Physical Chemistry C*, **116** (17), 9481-9486 (2012)
94. A. Gotzias, E. Tyllianakis, G. Froudakis, Th. Steriotis, Theoretical study of hydrogen adsorption in oxygen functionalized carbon slit pores *Microporous and Mesoporous Materials*, **154**, 38–44 (2012).

95. A. Gotzias, Th. Steriotis, D₂/H₂ quantum sieving in microporous carbons: a theoretical study on the effects of pore size and pressure, *Molecular Physics*, **110** (11-12), 1179-1187 (2012).
96. A.A. Sapalidis, F.K. Katsaros, Th.A. Steriotis, N.K. Kanellopoulos, S. Dante, T. Hauss, Neutron diffraction on polymer nanocomposites - A tool for structural and orientation studies, *Journal of Physics: Conference Series*, **340**, article number 012090 (2012)
97. A. Ampoumogli, Th. Steriotis, P. Trikalitis, E.G. Bardaji, M. Fichtner, A. Stubos, G. Charalambopoulou, Synthesis and characterisation of a mesoporous carbon/calcium borohydride nanocomposite for hydrogen storage, *International Journal of Hydrogen Energy*, **37** (21), 16631-16635 (2012).
98. A.Bakandritsos, A.Papagiannopoulos, E.N.Anagnostou, .Avgoustakis, R.Zboril, S.Pispas, J.Tucek, V.Ryukhtin, N.Bouropoulos, A.Kolokithas-Ntoukas, T.A. Steriotis, U.Keiderling, F.Winnefeld, Merging high doxorubicin loading with pronounced magnetic response and bio-repellent properties in hybrid drug nanocarriers, *Small*, **8** (15), 2381-2393 (2012).
99. A.Gotzias, G.Charalambopoulou, A.Ampoumogli, I.Krklijus, M.Hirscher, Th.Steriotis, Experimental and theoretical study of D₂/H₂ quantum sieving in a carbon molecular sieve, *Adsorption*, **19**(2-4), 373-379 (2013).
100. I. Krkljus, T. Steriotis, G. Charalambopoulou, A. Gotzias, M. Hirscher, H₂/D₂ adsorption and desorption studies on carbon molecular sieves with different pore structures, *Carbon*, **57**, 239–247 (2013).
101. M. Odysseos, P. De Rango, C.N. Christodoulou, E.K. Hlil, T. Steriotis, G. Karagiorgis, G. Charalambopoulou, T. Papanagioutou, A. Ampoumogli, V. Psycharis, E. Kouloukakis, D. Fruchart, A. Stubos, The effect of compositional changes on the structural and hydrogen storage properties of (La-Ce)Ni₅ type intermetallics towards compounds suitable for metal hydride hydrogen compression, *Journal of Alloys and Compounds*, **580**, S268-S270 (2013).
102. A.Gotzias, E.Tylianakis, G.Froudakis, Th.Steriotis, Effect of surface functionalities on gas adsorption in microporous carbons: a grand canonical Monte Carlo study, *Adsorption*, **19**(2-4) 745-756 (2013).
103. D. Giasafaki, G. Charalambopoulou, A. Bourlinos, A. Stubos, D. Gournis, Th. Steriotis, A hydrogen sorption study on a Pd-doped CMK-3 type ordered mesoporous carbon, *Adsorption*, **19**(2-4), 803-811 (2013).
104. Ch. Karavasili, E.P. Amanatiadou, L. Sygellou, D.K. Giasafaki, Th.A. Steriotis, Georgia C. Charalambopoulou, I.S. Vizirianakis, D.G. Fatouros, "Development of new drug delivery system based on ordered mesoporous carbons: characterisation and cytocompatibility studies", *J. Mater. Chem. B*, **1**, 3167-3174 (2013).
105. V. Likodimos, Th.A. Steriotis, S.K. Papageorgiou, G.E. Romanos, R.R.N. Marques, R.P. Rocha, J.L. Faria, M.F.R. Pereira, J.L. Figueiredo, A.M.T. Silva, P. Falaras, Controlled surface functionalization of multiwall carbon nanotubes by HNO₃ hydrothermal oxidation, *Carbon*, **69**, 311-326 (2014).
106. D. Giasafaki, G. Charalambopoulou, Ch. Tampaxis, A. Stubos, Th. Steriotis, Hydrogen sorption properties of Pd-doped carbon molecular sieves, *International Journal of Hydrogen Energy*, **39**(18), 9830-9836 (2014).
107. K.V. Kumar, G. Charalambopoulou, M. Kainourgiakis, A. Gotzias, A. Stubos, T. Steriotis, The required level of isosteric heat for the adsorptive/storage delivery of H₂ in the UiO series of MOFs, *RSC Advances*, **4**(85), 44848-44851 (2014).
108. E.I. Gkanas, T.A. Steriotis, A.K. Stubos, P. Myler, S.S Makridis, A complete transport validated model on a zeolite membrane for carbon dioxide permeance and capture, *Applied Thermal Engineering*, **74**, 36-46 (2015).
109. C. Daikopoulos, Y. Georgiou, A.B. Bourlinos, M. Baikousi, M.A. Karakassides, R. Zboril, T.A. Steriotis, Y. Deligiannakis, Arsenite remediation by an amine-rich graphitic carbon nitride synthesized by a novel low-temperature method, *Chemical Engineering Journal*, **256**, 347-355 (2014).
110. I. Spanopoulos, I. Bratsos, Ch. Tampaxis, A. Kourtellaris, A. Tasiopoulos, G. Charalambopoulou, T.A. Steriotis, P.N. Trikalitis, Enhanced gas-sorption properties of a high surface area, ultramicroporous magnesium formate, *CrystEngComm*, **17**(3), 532-539 (2015).
111. A. Ampoumogli, G. Charalambopoulou, P. Javadian, B. Richter, T.R. Jensen, Th. Steriotis, Hydrogen desorption and cycling properties of composites based on mesoporous carbons and a LiBH₄-Ca(BH₄)₂ eutectic mixture, *Journal of Alloys and Compounds*, doi:10.1016/j.jallcom.2014.12.077

112. A. Gotzias, E. Tylianakis, G. Froudakis, T. Steriotis, Adsorption in micro and mesoporous slit carbons with oxygen surface functionalities, *Microporous and Mesoporous Materials*, doi:10.1016/j.micromeso.2014.08.052
113. D. Giasafaki, G. Charalambopoulou, Ch. Tampaxis, D. Mirabile Gattia, A. Montone, G. Barucca, Th. Steriotis, Hydrogen storage properties of Pd-doped thermally oxidized single wall carbon nanohorns, *Journal of Alloys and Compounds*, doi:10.1016/j.jallcom.2014.12.076