

[Research Group](#)

[Research activities](#)

Publications in peer-reviewed Journals

2000-2004

Boom, J.P.; Sanopoulou, M. "Interval Sorption Kinetics in the System Poly(methyl methacrylate)-Methyl Acetate", *Polymer* **2000**, 41, 8641-8648

Sasloglou, S.A.; Petrou, J.K.; Kanellopoulos, N.K.; Androutsopoulos, G.P. "Realistic Random Sphere Pack Model for the Prediction of Sorption Isotherms"

J. of Microporous and Mesoporous Materials

2000

, 39, 477-483.

Charalambopoulou, G.Ch.; Kikkinides, E.S.; Papadokostaki, K.G.; Stubos, A.K.; Papaioannou, A. "Numerical and Experimental Investigation of the Diffusional Release of a Dispersed Solute From Polymeric Multilaminate Matrices", *J. Controlled Release* **2001**, 70, 309-319.

Charalambopoulou, G.Ch.; Papadokostaki, K.G.; Kikkinides, E.S.; Stubos, A.K. "Experimental and Theoretical Study of Solute Release From Polymeric Multilaminate Matrices", *J. Controlled Release* **2001**, 72, 303-305.

Sanopoulou, M.; Stamatialis, D.F. "Study of the Transition from Fickian to Case II Kinetics in the System Poly(ethyl methacrylate)-Liquid Methyl Alcohol", *Polymer* **2001**, 42, 1429-1439.

Sanopoulou, M.; Petropoulos, J.H. "Systematic Analysis and Model Interpretation of Micromolecular Non-Fickian Sorption Kinetics in Polymer Films", *Macromolecules* **2001**, 34, 1400-1410.

Sasloglou, S.A.; Petrou, J.K.; Kanellopoulos, N.K. Androutsopoulos, G.P. "Realistic Random Sphere Pack Model for the Prediction of Relative Permeability Curves", *Microporous and Mesoporous Materials* **2001**, 47, 97-103.

2

Stamatialis, D.F.; Sanopoulou M.; Raptis, I. "Swelling and Dissolution Behavior of Poly(methyl methacrylate) Films in Methyl Ethyl Ketone/Methyl Alcohol Mixtures Studied by Optical Techniques", *J. Applied Polym. Sci.* **2002**, 83, 2835-2842.

Stamatialis, D.F.; Sanopoulou, M.; Petropoulos, J.H. "Investigation of Case II Diffusion Behavior. I. Theoretical Studies Based on the Relaxation-Dependent Solubility Model", *Macromolecules* **2002**, 35, 1012-1020.

Stamatialis, D.F.; Sanopoulou M.; Petropoulos, J.H. "Investigation of Case II Diffusion Behavior. II. Study of the Poly(methyl methacrylate)-Methyl Alcohol System by Two-Beam Microinterferometry", *Macromolecules* **2002**, 35, 1021-1027.

Chatzichristidi, M.; Raptis, I.; Diakoumakos, C.D.; Glezos, N.; Argitis, P.; Sanopoulou, M. "Aqueous Base Developable Near UV Photoresist For High Aspect Ratio Micromachining" *Microelectronic Engin.* **2002**, 61-62, 729-735.

Papadokostaki, K.G.; Herouvim, M.E. "Kinetics of Release of Particulate Solutes Incorporated in Cellulosic Polymer Matrices as a Function of Solute Solubility and Polymer Swellability. III. Moderately Soluble Solute", *J. Applied Polym. Sci.* **2002**, 84, 2028-2039.

Alentiev, A.; Sanopoulou, M.; Ushakov, N.; Papadokostaki, K.G. "Melting and Recrystallization Processes in a Rubbery Polymer Detected by Vapor Sorption and TMDSC Methods", *Polymer* **2002**, 43, 1949-1952.

Papadokostaki, K.G.; Polishchuk, A.Ya.; Petrou, J.K. "Modeling of Solute Release from Polymeric Monoliths Subject to Linear Structural Relaxation", *J. Polymer Sci., Polym. Phys.* **2002**, 40, 1171-1188.

Katsaros, G; Stergiopoulos, T.; Arabatzis, I.M.; Papadokostaki, K.G.; Falaras, P. "A Solvent-free Composite Polymer/Inorganic Oxide Electrolyte for High Efficient Solid-state Dye-sensitized Solar Cells", *J. Photochemistry and Photobiology A: Chemistry*, **2002**, 149, 191-198.

Raptis, I.; Niakoula, D.; Tegou, E.; Bellas, V.; Gogolides, E.; Argitis, P.; Papadokostaki, K.G.; Ioannidis, A. "Resist Process Issues Related to the Glass Transition Changes in Chemically Amplified Resist Films" *Microelectronic Engin.*, **2003**, 67, 283-291.

Raptis, V.E.; Economou, I.G.; Theodorou, D.N.; Petrou, J.; Petropoulos, J.H. "Molecular Dynamics Simulation of Structure and Thermodynamic Properties of Poly(dimethylsilamethylene) and Hydrocarbon Solubility Therein: Toward the Development of Novel Membrane Materials for Hydrocarbon Separation" *Macromolecules* **2004**, 37, 1102-1112.

Papadokostaki, K.G.; Petrou, J.K. "Combined Experimental and Computer Simulation Study of the Kinetics of Solute Release From a Relaxing Swellable Polymer Matrix. I. Characterization of non-Fickian Solvent Uptake"

J. Applied Polym. Sci

2004

, 92, 2458-2467.

Papadokostaki, K.G. "Combined Experimental and Computer Simulation Study of the Kinetics of Solute Release From a Relaxing Swellable Polymer Matrix. II. Release of an Osmotically Active Solute" *J. Applied Polym. Sci.* **2004**, 92, 2468-2479.

Stavropoulou, A.; Papadokostaki, K.G.; Sanopoulou M. "Thermal Properties of Poly (vinyl alcohol)-Solute Blends Studied by TMDSC" *J. Applied Polym. Sci.* **2004**, 93, 1151-1156.

Alentiev, A.; Economou, I. G.; Finkelshtein, E.; Petrou, J.; Raptis, V. E.; Sanopoulou, M.; Soloviev, S.; Ushakov, N.; Yampolskii, Y. "Transport Properties of Silmethylene Homo-polymers and Random Copolymers: Experimental Measurements and Molecular Simulation" *Polymer* **2004**

,
45

,
6933-6944.

2005-2010

A. Alentiev, S.I. Semenova, M. Sanopoulou “Non-Fickian Vapor Sorption Kinetics in Rubbery Poly(dimethylsilamethylene) and the Effect of Radiation–Induced Crosslinking”, *J. Applied Polym. Sci.*, (2005) 226-230 95

A. Stavropoulou, K.G. Papadokostaki, M. Sanopoulou, “Effect of Loading on a Swelling-Controlled Drug Delivery System Studied by Optical Techniques” , [*J. Controlled Release*](#) [101](#) [\(2005\) 310-312](#)

A. Stavropoulou, K.G. Papadokostaki, M. Sanopoulou, “Experimental and Theoretical Study of the Release Kinetics of Propranolol Hydrochloride from PVA Matrices ”, [*J. Controlled Release*](#) [101](#) [\(2005\) 313-315](#)

D. Soulas, K.G. Papadokostaki, M. Sanopoulou, J.H. Petropoulos “Mechanistic Analysis of Osmotically Promoted Release from Hydrophobic Elastomeric Monoliths-Effect of Solute Load” [*J. Controlled Release*](#) [101](#) [\(2005\) 298-301](#)

V. Dimos, M. Sanopoulou “Experimental Investigation of Anomalous Sorption Kinetics in the Methanol Vapor- Poly(methyl methacrylate) System” , *J. Applied Polym. Sci.*, 97 (2005) 1184-1195

D. Goustouridis, K. Manoli, S. Chatzandroulis, M. Sanopoulou and I. Raptis “Characterization of polymer layers for silicon micromachined bilayer chemical sensors using white light interferometry” *Sens. and Act., B: Chemical* 111-112 (SUPPL.), (2005) 549-554

I.G. Economou, V.E. Raptis, V.S. Melissas, D.N. Theodorou, J. Petrou and J.H. Petropoulos, “Molecular Simulation of Structure, Thermodynamic and Transport Properties of Polymeric

Membrane Materials for Hydrocarbon Separation”, [Fluid Phase Equil. 228-229 \(2005\) 15-20](#)

F. Doumenc, B. Guerrier, C. Allain, V. Dimos, M. Sanopoulou. “Solvent sorption in glassy polymer films. Coupling between solvent diffusion and viscoelastic relaxation” , Proceedings of Fourth Int. Conf. on Computational Heat and Mass Transfer, Paris, 17-20 May 2005, pp.1017-1022

V. Dimos, M. Sanopoulou “Determination of sorption kinetic parameters using the relaxation dependent solubility model in the methanol vapor – poly(methyl methacrylate) system” , *J. Applied Polym. Sci.*, 100 (2006) 2278-2288.

K.G. Papadokostaki, A. Stavropoulou, M. Sanopoulou, J.H. Petropoulos, “A Model for the Prediction of the Performance of Multilayered Polymeric Matrix-Controlled Release Devices” [Desalination 199 \(2006\) 441-442](#)

D. Soulas, K.G. Papadokostaki, M. Sanopoulou, “Osmotically Enhanced Drug Release from Hydrophobic Elastomeric Matrices” [Desalination 200 \(2006\) 491-492](#) .

A.M. Douvas, F. Van Roey, M. Goethals, K.G Papadokostaki, K. Yannakopoulou, D. Niakoula, E. Gogolides, P. Argitis “Partially fluorinated, polyhedral oligomeric silsesquioxane-functionalized (meth)acrylate resists for 193 nm bilayer lithography” [Chem. Mater. 18 \(2006\) 4040-4048](#)

K. Manoli, D. Goustouridis, S. Chatzandroulis, I. Raptis, E. S.Valamontes, M. Sanopoulou “Vapor sorption in thin supported polymer films studied by white light interferometry” [Polymer, 47 \(2006\) 6117-6122](#)

V. Dimos, M. Sanopoulou, "Experimental and theoretical investigation of anomalous sorption kinetics in the methanol vapor – poly(methyl methacrylate) system at 35 oC, *J. Polym. Sci., Part B: Polym Phys*

44 (2006) 3173-3184

Galiatsatou, P., Kanellopoulos, N.K., Petropoulos, J.H., Comprehensive time-lag measurement as a diagnostic and analytical tool for non-Fickian transport studies: A salient porous barrier-gaseous permeant test case, [*Phys. Chem. Chem. Phys.* 8 \(2006\) 3741-3748](#)

Galiatsatou, P., Kanellopoulos, N.K., Petropoulos, J.H., Characterization of the transport properties of membranes of uncertain macroscopic structural homogeneity, [*J. Membr. Sci.* 280 \(2006\) 634-642](#)

J. Jaczewska, A. Budkowski, A. Bernasik, I. Raptis, J. Raczowska, D. Goustouridis, J. Rysz, M. Sanopoulou, "Humidity and Solvent Effects in spin-coated Polythiophene- Polystyrene Blends", *J. Appl. Polym. Sci.*, 105 (2007) 67-79 .

J. Jaczewska, I. Raptis, A. Budkowski, D. Goustouridis, J. Raczowska, M. Sanopoulou, E. Pamuła, A. Bernasik, J. Rysz " Swelling of Poly(3-alkylthiophene) Films Exposed to Solvent Vapors and Humidity: Evaluation of Solubility Parameters" , *Synthetic Metals* 157 (2007) 726-732

E. Sarantopoulou, Z. Kollia, K. Manoli, M. Sanopoulou, D. Goustouridis, S. Chatzandroulis, I. Raptis "Modification of sensing properties of thin polymer films by VUV irradiation", TRANSDUCERS and EUROSENSORS '07 - *4th International Conference on Solid-State Sensors, Actuators and Microsystems, Proceedings* art. no. 4300199, pp. 591-594 , 2007

Iijima, T., Petropoulos, J.H., A proposed novel approach to the study of the dual-mode mechanism of dyeing nylon with acid dyes, [*J. Appl. Polym. Sci.* 103 \(2007\) 1055-1057](#)

Papadopoulos, G.K., Petropoulos, J.H., Model study of the effect of pore structure and condensation on multilayer adsorbate transport in porous media, [*Langmuir* 23 \(2007\) 12932-12936](#)

P. Dallas, A.B. Bourlinos, D. Petridis, N. Boukos, K. Papadokostaki, D. Niarchos and N. Guskos "Synthesis and characterization of 2-D and 3-D covalent networks derived from triazine central cores and bridging aromatic diamines" [*Polymer* , 49 \(2008\) 1137-1144](#) .

K.G. Papadokostaki, A. Stavropoulou, M. Sanopoulou, J.H. Petropoulos, "An advanced model for composite planar three-layer matrix-controlled release devices. Part I. Devices of uniform material properties and non-uniform solute load" [*J. Membrane Sci.* 312 \(2008\) 193-206](#) .

A. Hasimi, A. Stavropoulou, K.G. Papadokostaki, M. Sanopoulou, "Transport of water in polyvinyl alcohol films: effect of thermal treatment and chemical crosslinking" [*Eur. Polymer J.* 44 \(2008\) 4098-4107](#)

E. Sarantopoulou, Z. Kollia, A.C.Cefalas, K. Manoli, M. Sanopoulou, D. Goustouridis, S. Chatzandroulis, I. Raptis "Surface nano/micro functionalization of PMMA thin films by 157 nm irradiation for sensing application" *Applied Surface Science* 254 (2008) 1710-1719.

K.Manoli, E.Karonis, M.Chatzychristidi, D.Goustouridis, S.Chatzandroulis, I.Raptis, M.Sanopoulou "Evaluation of a chemocapacitive sensor array for the detection of vapor analytes and their mixtures" IEEE Sensors 2008, October 26-29, 2008, Lecce, Italy, *Proceedings of IEEE Sensors* , art. no. 4716569 , pp. 831-834, 2008

M-E Vlachopoulou, A Tserepi, P Pavli, P Argitis, M Sanopoulou and K Misiakos, "A low temperature surface modification assisted method for bonding plastic" *J. Micromech. and Microeng* . 19 (2009), 015007

P.Oikonomou, K.Manoli, D.Goustouridis, I.Raptis, M.Sanopoulou "Polymer/BaTiO₃ nanocomposite based chemocapacitive sensors", *Microelectronic Eng.*, 86 (4-6) (2009) 1286-1288.

Oikonomou P., Goustouridis D., Raptis I., Manoli K. , Sanopoulou M. « Must fermentation progress monitoring by polymer coated capacitive vapour sensor arrays", IEEE Sensors 2009, October 25-28, 2009, Christchurch, Canterbury, New Zealand, 2009, *Proceedings of IEEE Sensors* , art. no. 5398443 , pp. 1443-1446, 2009.

K. Manoli, D. Goustouridis, P. Oikonomou, S. Chatzandroulis, M. Sanopoulou, I. Raptis, "Capacitive sensor arrays with controllable deposition of the sensing polymer area for VOCs applications: Design and measurement considerations" Eurosensors 2009, September 6-9, Lausanne , Switzerland, *Procedia Chemistry* 2009, 1, 176-179

K.G. Papadokostaki, "Experimental realization of sustained simple kinetic regimes of release of particulate solutes subject to slow dissolution in the containing matrix", [*J. Membrane Sci.* , **326** \(2009\) 503-506](#)

D.N. Soulas, M. Sanopoulou, K.G. Papadokostaki, "A comparative study on the release kinetics of osmotically active solutes from hydrophobic elastomeric matrices, combined with the characterization of the depleted matrices", [*J. Appl. Polymer Sci.* , **113** \(2009\) 936-949](#) .

K.G. Papadokostaki, M. Sanopoulou, J.H. Petropoulos, "An advanced model for composite planar three-layer matrix-controlled release devices. Part II. Devices of non-uniform material properties and a practical example", [*J. Membrane Sci.* , **343** \(2009\) 128-136](#) .

K.G. Papadokostaki, A. Savidou, "Study of leaching mechanisms of caesium ions incorporated in Ordinary Portland Cement", [*J. Hazardous Materials* , **171** \(2009\) 1024-1031](#) .

Transport of matter phenomena in polymers

Written by Papadokostaki K.G

Wednesday, 06 May 2009 10:01 - Last Updated Friday, 28 February 2014 13:10

Petropoulos, J. H.; Sanopoulou, M.; Papadokostaki, K. G. "Beyond Fick: How best to deal with non-Fickian behavior in a Fickian spirit" Diffusion Fundamentals III, August 23-28, 2009, Athens, Greece, Proceedings pp.103-123 (invited lecture), Published in Diffusion-Fundamentals.org 11 (2009) 5, 1-21

Soulas, D.N.; Papadokostaki, K.G. "Experimental investigation of the release mechanism of hydrophilic solutes from hydrophobic matrices", Diffusion Fundamentals III, August 23-28, 2009, Athens, Greece, Proceedings pp.130-131, Published in Diffusion-Fundamentals.org 11 (2009) 6, 1-2

D. F. Stamatialis, D. N. Soulas, M. Sanopoulou «Mechanisms of non-Fickian micromolecular diffusion in glassy polymer films: Analysis of experimental sorption and concurrent dilation kinetics in the light of a Differential Swelling Stress model», *Diffusion Fundamentals III*, August 23-28, 2009, Athens, Greece, *Proceedings* pp 132-133, Diffusion-Fundamentals.org 11 (2009) 10, 1-2

K. Manoli, D. Goustouridis, I. Raptis, E. Valamontes, M. Sanopoulou "Vapor-induced swelling of supported methacrylic and siloxane polymer films: Determination of interaction parameters" *J. Appl. Polym. Sci.*, 116 (2010), 184-190

2011–

D.N. Soulas, K.G. Papadokostaki, "Experimental investigation of the release mechanism of proxiphylline from silicone rubber matrices", *J. Appl. Polymer Sci.* 120 (2011) 821-830 .

M.V. Konidari, K.G. Papadokostaki, M. Sanopoulou, "Moisture-induced effects on tensile mechanical properties and glass transition temperature of polyvinyl alcohol films", [*J. Appl. Polymer Sci.* 120 \(2011\) 3381-3386](#)

D.N. Soulas, M.Sanopoulou, K.G. Papadokostaki, "Performance of three-layer controlled release devices with uniform or non-uniform material properties: Experiment and computer simulation." [*J. Membrane Sci.* 372 \(2011\) 1-10](#)

D.N. Soulas, K.G. Papadokostaki, "Regulation of proxyphylline's release from silicone rubber matrices by the use of osmotically active excipients and a multi-layer system", [*Int. J. Pharm.* 408 \(2011\) 120-129](#)

J.H. Petropoulos, M. Sanopoulou, K.G. Papadokostaki, "Physically insightful modeling of non-Fickian kinetic regimes encountered in fundamental studies of isothermal sorption of swelling agents in polymeric media", [*Eur. Polymer J.* 47 \(2011\) 2053-2062](#), review article.

P. Oikonomou, G.P. Patsis, A. Botsialas, K. Manoli, D Goustouridis, N.A. Pantazis, A. Kavadias, E. Valamontes, T.Ganetsos, M. Sanopoulou, I. Raptis, "Performance simulation, realization and evaluation of capacitive sensor arrays for the real time detection of volatile organic compounds", *Microelectronic Eng.* 88 (2011). 2359-2363

N. A. Pantazis, G. P. Patsis, E. Valamontes, I. Raptis, D. Goustouridis, M. Sanopoulou "Capacitive sensor arrays for the real time detection of volatile organic compounds" 5th International Conference on Sensing Technology, Nov. 28th - Dec. 1st, 2011, Palmerston North, New Zealand, *Proceedings of the International Conference on Sensing Technology, ICST*, art. no. 6137013, pp. 422-425, 2011

P. Oikonomou, A. Salapatasa, K. Manolia,, K. Misiakos, D. Goustouridis, E. Valamontes, M. Sanopoulou, I. Raptis, G. Patsis "Chemocapacitance response simulation through polymer swelling and capacitor modeling" Eurosensors XXV, September 4-7, 2011, Athens, Greece, *Proceedia Engineering*

, 25 (2011) 423-426

P. Oikonomou , A. Botsialas, G. Patsis,, K. Manoli,, D. Goustouridis, E. Valamontes, N. Pantazis, M. Sanopoulou, I. Raptis “Hybrid integration of microfabricated chemocapacitor arrays with miniaturized read-out electronics towards low-power gas sensing module” Eurosensors XXV, September 4-7, 2011, Athens, Greece, *Procedia Engineering*, 25 (2011) 1117-1120

Oikonomou, P.; Manoli, K.; Goustouridis, D.; Botsialas, A.; Valamontes, E.; Raptis, I.; Sanopoulou, M. “Polymer coated microfabricated interdigitated electrodes arrays for gas sensing applications, *Key Engineering Materials*, 495 (2012) 87-90

J.H. Petropoulos, K.G. Papadokostaki, “May the Knudsen equation be legitimately, or at least usefully, applied to dilute adsorbable gas flow in mesoporous media?”, [*Chem. Eng. Sci.* **68** \(2012\) 392-400](#)

M.V. Konidari, D.N. Soulas, K.G. Papadokostaki and M. Sanopoulou, “Study of the effect of modified and pristine carbon nanotubes on the properties of composite poly(vinyl alcohol) films”, [*J. Appl. Polymer Sci.* , **125** \(2012\) *E* 471- *E* 477](#) .

D.N. Soulas, M. Sanopoulou, K.G. Papadokostaki “Proxyphylline release kinetics from symmetrical three-layer silicone rubber matrices: Effect of different excipients in the outer rate-controlling layers”, [*Int. J. Pharm* . **427** \(2012\) 192-200](#) .

D.N. Soulas, K.G. Papadokostaki, A. Panou and M. Sanopoulou, “Drug release from PDMS-based matrices: Observed and predicted stabilization of the release rate by three-layer devices”, [*Ind. Engin. Chem. Res.* **51** \(2012\) 7126-7136](#) .

J.H. Petropoulos, K.G. Papadokostaki, M. Sanopoulou, “Higuchi’s equation and beyond: Overview of the formulation and application of a generalized model of drug release from

polymeric matrices”, [Int. J. Pharm. 437 \(2012\) 178-191](#) , mini review.

K, Manoli, P. Oikonomou, E. Valamontes, I. Raptis, M. Sanopoulou “Polymer-BaTiO₃ composites: dielectric constant and vapor sensing properties in chemocapacitor applications” [J. Appl. Polym. Sci., 125 \(2012\) 2577-2584](#)

P. Oikonomou, A. Botsialas, D. Goustouridis, E. Valamontes, M. Sanopoulou, I. Raptis “Compensation of temperature variations in Chemcapacitive Gas Sensing Systems” *Sensor letters* 10 (2012) . 736-741

P. Oikonomou, A. Botsialas, K. Manoli, D. Goustouridis, E. Valamontes, M. Sanopoulou, I. Raptis, G. P. Patsis “Chemocapacitor performance modeling by means of polymer swelling optical measurements” *Sens and Act B: Chemical*, 171-172 (2012) 409-415

D.N. Soulas, K.G. Papadokostaki, M. Sanopoulou, “Silicone rubber films modified by ethylenoxy moieties: characterization and drug delivery properties”, [J. Applied Polym. Sci. , 129 \(2013\) 874-883](#)

D.N. Soulas, M. Sanopoulou, K.G. Papadokostaki, “Hydrophilic modification of silicone elastomer films: thermal, mechanical and theophylline permeability properties”, [Mater. Sci. Engin. C: Appl. Biomat. , 33 \(2013\) 2122-2230](#)

A.I. Panou, K.G. Papadokostaki , P.A. Tarantili , M. Sanopoulou, Effect of hydrophilic inclusions on PDMS crosslinking reaction and its interrelation with mechanical and water sorption properties of cured films, [Eur. Polym. J. 49 \(2013\) 1803-1810](#) .

Botsialas A, Oikonomou P, Goustouridis D, Ganetsos, T., Raptis, I., Sanopoulou, M.. “A

miniaturized chemocapacitor system for the detection of volatile organic compounds”

[*Sens and Act B: Chemical* 177 \(2013\) 776-784](#)

F.D. Palamidakis, V.N. Stathopoulos, A. Panou, K.G. Papadokostaki, G. Leontakianakos, E.G. Kontakiotis “Device and materials for in vitro evaluation of forces developed to teeth and periodontal structures during dental practices”, [*J. Dental Biomech.* 4 \(201 3\) 1758736013503648](#)

M. Minelli, F. Doghieri, K.G. Papadokostaki, J.H. Petropoulos, A fundamental study of the extent of meaningful application of Maxwell's and Wiener's equations to the permeability of binary composite materials. Part I: A numerical computation approach, [*Chem. Eng. Sci.* 104 \(2013\) 630-637](#)

A. Hasimi, K.G. Papadokostaki, M. Sanopoulou, Mechanisms of diphylline release from dual-solute loaded poly(vinyl alcohol) matrices [*Mater. Sci. Engin. C: Appl. Biomat* 34 \(2014\) 369-376.](#)

J.H. Petropoulos, K.G. Papadokostaki, M. Minelli, F. Doghieri, “On the role of diffusivity ratio and partition coefficient in diffusional molecular transport in binary composite materials with special reference to the Maxwell equation”, [*J. Membrane Sci.*456 \(2014\) 162-166](#)