Dimitrios Stamatialis

List of Publications by Year
in descending order

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134 papers	5,863 citations	66343 42 h-index	85541 71 g-index
134 all docs	134 docs citations	134 times ranked	6614 citing authors

#	Article	IF	Citations
1	Medical applications of membranes: Drug delivery, artificial organs and tissue engineering. Journal of Membrane Science, 2008, 308, 1-34.	8.2	401
2	An algorithm-based topographical biomaterials library to instruct cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16565-16570.	7.1	355
3	Anion-exchange membranes containing diamines: preparation and stability in alkaline solution. Journal of Membrane Science, 2004, 244, 25-34.	8.2	220
4	Morphology and Microtopology of Cation-Exchange Polymers and the Origin of the Overlimiting Current. Journal of Physical Chemistry B, 2007, 111, 2152-2165.	2.6	174
5	Preparation and characterisation of monovalent ion selective cation exchange membranes based on sulphonated poly(ether ether ketone). Journal of Membrane Science, 2005, 263, 137-145.	8.2	140
6	One-step fabrication of porous micropatterned scaffolds to control cell behavior. Biomaterials, 2007, 28, 1998-2009.	11.4	138
7	Fabrication of three-dimensional bioplotted hydrogel scaffolds for islets of Langerhans transplantation. Biofabrication, 2015, 7, 025009.	7.1	136
8	Effect of pH on the performance of polyamide/polyacrylonitrile based thin film composite membranes. Journal of Membrane Science, 2011, 372, 228-238.	8.2	124
9	Mixed matrix hollow fiber membranes for removal of protein-bound toxins from human plasma. Biomaterials, 2013, 34, 7819-7828.	11.4	124
10	Insight into the transport of hexaneâ€“solute systems through tailor-made composite membranes. Journal of Membrane Science, 2004, 228, 103-116.	8.2	123
11	Role of membrane surface in concentration polarization at cation exchange membranes. Journal of Membrane Science, 2004, 239, 119-128.	8.2	112
12	Multi-layer spacer geometries with improved mass transport. Journal of Membrane Science, 2006, 282, 351-361.	8.2	110
13	Bioengineered kidney tubules efficiently excrete uremic toxins. Scientific Reports, 2016, 6, 26715.	3.3	109
14	A novel approach for blood purification: Mixed-matrix membranes combining diffusion and adsorption in one step. Acta Biomaterialia, 2012, 8, 2279-2287.	8.3	108
15	Development and analysis of multi-layer scaffolds for tissue engineering. Biomaterials, 2009, 30, 6228-6239.	11.4	97
16	High permeable PTMSP/PAN composite membranes for solvent nanofiltration. Journal of Membrane Science, 2009, 333, 88-93.	8.2	95
17	Insights into the role of material surface topography and wettability on cell-material interactions. Soft Matter, 2010, 6, 4377.	2.7	90
18	Human proximal tubule epithelial cells cultured on hollow fibers: living membranes that actively transport organic cations. Scientific Reports, 2015, 5, 16702.	3.3	90

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19	Regeneration of the lung: Lung stem cells and the development of lung mimicking devices. Respiratory Research, 2016, 17, 44.	3.6	86
20	Membrane with integrated spacer. Journal of Membrane Science, 2010, 360, 185-189.	8.2	84
21	Influence of micro-patterned PLLA membranes on outgrowth and orientation of hippocampal neurites. Biomaterials, 2010, 31, 7000-7011.	11.4	70
22	Electro-catalytic membrane reactors and the development of bipolar membrane technology. Chemical Engineering and Processing: Process Intensification, 2004, 43, 1115-1127.	3.6	69
23	Mining for osteogenic surface topographies: In silico design to inÂvivo osseo-integration. Biomaterials, 2017, 137, 49-60.	11.4	66
24	Flat and microstructured polymeric membranes in organs-on-chips. Journal of the Royal Society Interface, 2018, 15, 20180351.	3.4	66
25	A method for characterizing membranes during nanofiltration at extreme pH. Journal of Membrane Science, 2010, 363, 188-194.	8.2	59
26	Asymmetric bipolar membrane: A tool to improve product purity. Journal of Membrane Science, 2007, 287, 246-256.	8.2	58
27	Hollow fibers of poly(lactide-co-glycolide) and poly(Îµ-caprolactone) blends for vascular tissue engineering applications. Acta Biomaterialia, 2013, 9, 6450-6458.	8.3	58
28	New low-flux mixed matrix membranes that offer superior removal of protein-bound toxins from human plasma. Scientific Reports, 2016, 6, 34429.	3.3	58
29	Tailoring the interface layer of the bipolar membrane. Journal of Membrane Science, 2010, 365, 389-398.	8.2	57
30	From portable dialysis to a bioengineered kidney. Expert Review of Medical Devices, 2018, 15, 323-336.	2.8	57
31	Observations on the permeation performance of solvent resistant nanofiltration membranes. Journal of Membrane Science, 2006, 279, 424-433.	8.2	55
32	Dimensionally stable Nafionâ€“polyethylene composite membranes for direct methanol fuel cell applications. Journal of Membrane Science, 2008, 321, 364-372.	8.2	53
33	Carbon Adsorbents With Dual Porosity for Efficient Removal of Uremic Toxins and Cytokines from Human Plasma. Scientific Reports, 2017, 7, 14914.	3.3	52
34	Composite capillary membrane for solvent resistant nanofiltration. Journal of Membrane Science, 2011, 372, 182-190.	8.2	50
35	Poly[1-(trimethylsilyl)-1-propyne] as a solvent resistance nanofiltration membrane material. Journal of Membrane Science, 2006, 281, 351-357.	8.2	49
36	Integration of hollow fiber membranes improves nutrient supply in three-dimensional tissue constructs. Acta Biomaterialia, 2011, 7, 3312-3324.	8.3	48

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37	New crosslinking method of polyamideâ€“imide membranes for potential application in harsh polar aprotic solvents. Separation and Purification Technology, 2013, 102, 142-146.	7.9	48
38	Mixed matrix membranes for efficient adsorption of copper ions from aqueous solutions. Separation and Purification Technology, 2013, 104, 214-220.	7.9	47
39	Data Sharing Under the General Data Protection Regulation. Hypertension, 2021, 77, 1029-1035.	2.7	47
40	Development of poly(l-lactic acid) hollow fiber membranes for artificial vasculature in tissue engineering scaffolds. Journal of Membrane Science, 2011, 371, 117-126.	8.2	46
41	Upscaling of a living membrane for bioartificial kidney device. European Journal of Pharmacology, 2016, 790, 28-35.	3.5	46
42	Fullerene-Modified Poly(2,6-dimethyl-1,4-phenylene oxide) Gas Separation Membranes:â€‰ Why Binding Is Better than Dispersing. Macromolecules, 2006, 39, 9234-9242.	4.8	45
43	Development of a living membrane comprising a functional human renal proximal tubule cell monolayer on polyethersulfone polymeric membrane. Acta Biomaterialia, 2015, 14, 22-32.	8.3	45
44	Pancreatic islet macroencapsulation using microwell porous membranes. Scientific Reports, 2017, 7, 9186.	3.3	45
45	Chromic acid recovery by electro-electrodialysisI. Evaluation of anion-exchange membrane. Journal of Membrane Science, 2005, 261, 49-57.	8.2	43
46	Towards spacer free electrodialysis. Journal of Membrane Science, 2009, 341, 131-138.	8.2	42
47	Chemistry in a spinneretâ€”On the interplay of crosslinking and phase inversion during spinning of novel hollow fiber membranes. Journal of Membrane Science, 2011, 369, 308-318.	8.2	42
48	Water recycling from mixed chromic acid waste effluents by membrane technology. Separation and Purification Technology, 2006, 49, 76-83.	7.9	41
49	Boltorn-Modified Poly(2,6-dimethyl-1,4-phenylene oxide) Gas Separation Membranes. Macromolecules, 2007, 40, 5400-5410.	4.8	41
50	Bioengineering Organs for Blood Detoxification. Advanced Healthcare Materials, 2018, 7, e1800430.	7.6	41
51	Fabrication of cell container arrays with overlaid surface topographies. Biomedical Microdevices, 2012, 14, 95-107.	2.8	40
52	Electrochemical acidification of milk by whey desalination. Journal of Membrane Science, 2007, 303, 213-220.	8.2	39
53	â€œChemistry in a spinneretâ€•to fabricate hollow fibers for organic solvent filtration. Separation and Purification Technology, 2012, 86, 183-189.	7.9	38
54	Designing porosity and topography of poly(1,3-trimethylene carbonate) scaffolds. Acta Biomaterialia, 2009, 5, 3281-3294.	8.3	36

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55	Sorption induced relaxations during water diffusion in S-PEEK. Physical Chemistry Chemical Physics, 2009, 11, 298-308.	2.8	36
56	Important factors influencing molecular weight cut-off determination of membranes in organic solvents. Journal of Membrane Science, 2012, 390-391, 211-217.	8.2	36
57	A metal ion charged mixed matrix membrane for selective adsorption of hemoglobin. Separation and Purification Technology, 2013, 115, 20-26.	7.9	36
58	NanoTopoChip: High-throughput nanotopographical cell instruction. Acta Biomaterialia, 2017, 62, 188-198.	8.3	36
59	Micro-patterned Nafion membranes for direct methanol fuel cell applications. Journal of Membrane Science, 2010, 349, 231-236.	8.2	35
60	Development of novel membranes for blood purification therapies based on copolymers of N-vinylpyrrolidone and n-butylmethacrylate. Journal of Materials Chemistry B, 2013, 1, 6066.	5.8	35
61	Hollow fiber membranes for long-term hemodialysis based on polyethersulfone-SlipSkinâ„¢ polymer blends. Journal of Membrane Science, 2020, 604, 118068.	8.2	35
62	Mixed Matrix Membranes: A New Asset for Blood Purification Therapies. Blood Purification, 2014, 37, 1-3.	1.8	33
63	Polymeric hollow fiber membranes for bioartificial organs and tissue engineering applications. Journal of Chemical Technology and Biotechnology, 2014, 89, 633-643.	3.2	33
64	In vitro assessment of mixed matrix hemodialysis membrane for achieving endotoxin-free dialysate combined with high removal of uremic toxins from human plasma. Acta Biomaterialia, 2019, 90, 100-111.	8.3	33
65	A facile method to fabricate poly(l-lactide) nano-fibrous morphologies by phase inversion. Acta Biomaterialia, 2010, 6, 2477-2483.	8.3	30
66	Development and characterization of poly(Îµ-caprolactone) hollow fiber membranes for vascular tissue engineering. Journal of Membrane Science, 2013, 438, 29-37.	8.2	29
67	3D alveolar in vitro model based on epithelialized biomimetically curved culture membranes. Biomaterials, 2021, 266, 120436.	11.4	29
68	Novel Gas Separation Membranes Containing Covalently Bonded Fullerenes. Macromolecular Rapid Communications, 2004, 25, 1674-1678.	3.9	28
69	NafionÂ®/H-ZSM-5 composite membranes with superior performance for direct methanol fuel cells. Journal of Membrane Science, 2009, 338, 75-83.	8.2	27
70	3D Lung-on-Chip Model Based on Biomimetically Microcurved Culture Membranes. ACS Biomaterials Science and Engineering, 2022, 8, 2684-2699.	5.2	27
71	Frontiers in hemodialysis: Innovations and technological advances. Artificial Organs, 2021, 45, 175-182.	1.9	26
72	Chromic acid recovery by electro-electrodialysis. Separation and Purification Technology, 2005, 47, 27-35.	7.9	24

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73	An important step towards a prevascularized islet macroencapsulation deviceâ€"effect of micropatterned membranes on development of endothelial cell network. Journal of Materials Science: Materials in Medicine, 2018, 29, 91.	3.6	24
74	Corrugated round fibers to improve cell adhesion and proliferation in tissue engineering scaffolds. Acta Biomaterialia, 2013, 9, 6928-6935.	8.3	23
75	Endothelial and beta cell composite aggregates for improved function of a bioartificial pancreas encapsulation device. International Journal of Artificial Organs, 2018, 41, 152-159.	1.4	23
76	Optical vs. direct sorption and swelling measurements for the study of stiff-chain polymer-penetrant interactions. Journal of Membrane Science, 1997, 130, 75-83.	8.2	22
77	New membranes based on polyethersulfone â€“ SlipSkinâ„¢ polymer blends with low fouling and high blood compatibility. Separation and Purification Technology, 2019, 225, 60-73.	7.9	22
78	Impregnated membranes for direct methanol fuel cells at high methanol concentrations. Journal of Membrane Science, 2009, 328, 127-133.	8.2	21
79	Membranes for separation of biomacromolecules and bioparticles via flow field-flow fractionation. Journal of Chemical Technology and Biotechnology, 2015, 90, 11-18.	3.2	21
80	Aliphatic isocyanurates and polyisocyanurate networks. Polymers for Advanced Technologies, 2017, 28, 1299-1304.	3.2	21
81	The European Green Deal and nephrology: a call for action by the European Kidney Health Alliance. Nephrology Dialysis Transplantation, 2023, 38, 1080-1088.	0.7	21
82	Poly(ethylene glycol)â€based poly(urethane isocyanurate) hydrogels for contact lens applications. Polymer International, 2020, 69, 131-139.	3.1	20
83	In vitro study of dual layer mixed matrix hollow fiber membranes for outside-in filtration of human blood plasma. Acta Biomaterialia, 2021, 123, 244-253.	8.3	19
84	Electrochemical reduction of dilute chromate solutions on carbon felt electrodes. Journal of Applied Electrochemistry, 2006, 36, 323-332.	2.9	18
85	Boltorn-modified polyimide gas separation membranes. Journal of Membrane Science, 2008, 310, 512-521.	8.2	18
86	Allostimulatory capacity of conditionally immortalized proximal tubule cell lines for bioartificial kidney application. Scientific Reports, 2017, 7, 7103.	3.3	18
87	Drugs Commonly Applied to Kidney Patients May Compromise Renal Tubular Uremic Toxins Excretion. Toxins, 2020, 12, 391.	3.4	18
88	Innovations in dialysis membranes for improved kidney replacement therapy. Nature Reviews Nephrology, 2020, 16, 550-551.	9.6	18
89	In Vitro and In Vivo Bioluminescent Imaging of Hypoxia in Tissue-Engineered Grafts. Tissue Engineering - Part C: Methods, 2010, 16, 479-485.	2.1	17
90	Tailoring the surface charge of an ultrafiltration hollow fiber by addition of a polyanion to the coagulation bore liquid. Journal of Membrane Science, 2011, 369, 59-67.	8.2	17

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91	Functional Polymer Scaffolds for Blood Vessel Tissue Engineering. Macromolecular Symposia, 2011, 309-310, 93-99.	0.7	16
92	High flux mixed matrix membrane with low albumin leakage for blood plasma detoxification. Journal of Membrane Science, 2020, 609, 118187.	8.2	16
93	The Trimerization of Isocyanateâ€Functionalized Prepolymers: An Effective Method for Synthesizing Wellâ€Defined Polymer Networks. Macromolecular Rapid Communications, 2019, 40, e1800867.	3.9	15
94	Ex vivo evaluation of the blood compatibility of mixed matrix haemodialysis membranes. Acta Biomaterialia, 2020, 111, 118-128.	8.3	15
95	In Vitro Evaluation of a Hydroxypropyl Cellulose Gel System for Transdermal Delivery of Timolol. Current Drug Delivery, 2004, 1, 313-319.	1.6	13
96	New insights into the effects of biomaterial chemistry and topography on the morphology of kidney epithelial cells. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e817-e827.	2.7	13
97	A bioartificial kidney device with polarized secretion of immune modulators. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1670-1678.	2.7	13
98	Development of an In Vitro Airway Epithelialâ€“Endothelial Cell Culture Model on a Flexible Porous Poly(Trimethylene Carbonate) Membrane Based on Calu-3 Airway Epithelial Cells and Lung Microvascular Endothelial Cells. Membranes, 2021, 11, 197.	3.0	13
99	Development of Porous and Flexible PTMC Membranes for In Vitro Organ Models Fabricated by Evaporation-Induced Phase Separation. Membranes, 2020, 10, 330.	3.0	12
100	Application of microstructured membranes for increasing retention, selectivity and resolution in asymmetrical flow field-flow fractionation. Journal of Chromatography A, 2019, 1605, 360347.	3.7	11
101	Membranes for Modelling Cardiac Tissue Stiffness In Vitro Based on Poly(trimethylene carbonate) and Poly(ethylene glycol) Polymers. Membranes, 2020, 10, 274.	3.0	11
102	Development of multilayer constructs for tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 106-119.	2.7	10
103	An important step towards a prevascularized islet microencapsulation device: in vivo prevascularization by combination of mesenchymal stem cells on micropatterned membranes. Journal of Materials Science: Materials in Medicine, 2018, 29, 174.	3.6	10
104	Designed Surface Topographies Control ICAM-1 Expression in Tonsil-Derived Human Stromal Cells. Frontiers in Bioengineering and Biotechnology, 2018, 6, 87.	4.1	10
105	Development of a villi-like micropatterned porous membrane for intestinal magnesium and calcium uptake studies. Acta Biomaterialia, 2019, 99, 110-120.	8.3	10
106	Creating a Bioartificial Kidney. International Journal of Artificial Organs, 2017, 40, 323-327.	1.4	9
107	Tough combinatorial poly(urethane-isocyanurate) polymer networks and hydrogels synthesized by the trimerization of mixtures of NCO-prepolymers. Acta Biomaterialia, 2020, 105, 87-96.	8.3	9
108	New mixed matrix membrane for the removal of urea from dialysate solution. Separation and Purification Technology, 2021, 277, 119408.	7.9	9

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109	Solvent-resistant P84-based mixed matrix membrane adsorbers. Separation and Purification Technology, 2011, 80, 306-314.	7.9	8
110	In Vitro Evaluation of Small Molecule Delivery into Articular Cartilage: Effect of Synovial Clearance and Compressive Load. Assay and Drug Development Technologies, 2019, 17, 191-200.	1.2	8
111	Combining fluorescence and permeability measurements in a membrane microfluidic device to study protein sorption mechanisms. Journal of Membrane Science, 2020, 614, 118485.	8.2	8
112	A High Cellâ€Bearing Capacity Multibore Hollow Fiber Device for Macroencapsulation of Islets of Langerhans. Macromolecular Bioscience, 2020, 20, 2000021.	4.1	8
113	In vivo vascularization and islet function in a microwell device for pancreatic islet transplantation. Biomedical Materials (Bristol), 2021, 16, 035036.	3.3	8
114	Transport and reaction phenomena in multilayer membranes functioning as bioartificial kidney devices. Journal of Membrane Science, 2018, 565, 61-71.	8.2	7
115	Passive and Iontophoretic Controlled Delivery of Salmon Calcitonin Through Artificial Membranes. Current Drug Delivery, 2004, 1, 137-143.	1.6	7
116	Analysis of the kinetics of vapor absorption/desorption in/from silicone rubber and cellulose acetate membranes in the presence of stagnant boundary layers. Journal of Membrane Science, 1997, 125, 165-175.	8.2	6
117	Insight into the transport mechanism of solute removed in dialysis by a membrane with double functionality. Chemical Engineering Research and Design, 2017, 126, 97-108.	5.6	6
118	Effect of Surface Morphology of Poly(Ïµâ€caprolactone) Scaffolds on Adipose Stem Cell Adhesion and Proliferation. Macromolecular Symposia, 2013, 334, 126-132.	0.7	5
119	Effect of tissue scaffold topography on protein structure monitored by fluorescence spectroscopy. Journal of Biotechnology, 2014, 189, 166-174.	3.8	5
120	Evaluation of the Toxin-to-Protein Binding Rates during Hemodialysis Using Sorbent-Loaded Mixed-Matrix Membranes. Applied Sciences (Switzerland), 2018, 8, 536.	2.5	5
121	One-Step Fabrication of Porous Membrane-Based Scaffolds by Air-Water Interfacial Phase Separation: Opportunities for Engineered Tissues. Membranes, 2022, 12, 453.	3.0	5
122	Transdermal timolol delivery from a Pluronic gel. Journal of Controlled Release, 2006, 116, e53-e55.	9.9	4
123	Focus Issue | Bioartificial Organs and Tissue Engineering. International Journal of Artificial Organs, 2017, 40, 133-135.	1.4	3
124	Membranes for Organs-On-Chips. , 2018, , 295-321.		3
125	<scp>Structureâ€“Property</scp> Relations in Semiâ€crystalline Combinatorial Poly(urethaneâ€isocyanurate) Type Hydrogels. Polymer International, 0, , .	3.1	3
126	Model to Design Multilayer Tissue Engineering Scaffolds. Macromolecular Symposia, 2011, 309-310, 84-92.	0.7	2

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127	Microstructured Photoâ€Crosslinked Poly(Trimethylene Carbonate) for Use in Soft Lithography Applications: Aâ€‰Biodegradable Alternative for Poly(Dimethylsiloxane). ChemPhysChem, 2018, 19, 2085-2092.	2.1	2
128	Modelling of mass transport and insulin secretion of a membrane-based encapsulation device of pancreatic islets. Chemical Engineering Research and Design, 2020, 153, 496-506.	5.6	2
129	Porous membrane structures as stationary phase for capillary electrochromatography. Electrophoresis, 2012, 33, 2892-2895.	2.4	1
130	REMOVED: Novel Hollow Fiber Membranes of Poly(É›-Caprolactone) and Poly(Lactic-Co-Glycolic Acid) for Blood Vessel Regeneration. Procedia Engineering, 2012, 44, 1084-1086.	1.2	0
131	Book Presentation Biomedical Membranes and (Bio) Artificial Organs. Artificial Organs, 2018, 42, 1104-1105.	1.9	0
132	Advanced Blood Purification Therapies. , 2018, , 59-82.		0
133	Membranes for Bioartificial Kidney Devices. , 2018, , 105-147.		0
134	Membranes for Bioartificial Pancreas: Macroencapsulation Strategies. , 2018, , 211-244.		0