Patrick Vermette

List of Publications by Year
in descending order

78 papers	2,708 citations	186265 28 h-index	182427 51 g-index
78 all docs	78 docs citations	78 times ranked	3655 citing authors

#	Article	IF	Citations
1	Bioreactors for tissue mass culture: Design, characterization, and recent advances. Biomaterials, 2005, 26, 7481-7503.	11.4	338
2	Interactions of phospholipid- and poly(ethylene glycol)-modified surfaces with biological systems: relation to physico-chemical properties and mechanisms. Colloids and Surfaces B: Biointerfaces, 2003, 28, 153-198.	5.0	209
3	Culture-based strategies to enhance cellulase enzyme production from Trichoderma reesei RUT-C30 in bioreactor culture conditions. Biochemical Engineering Journal, 2008, 40, 399-407.	3.6	179
4	Enhanced enzyme production from mixed cultures of Trichoderma reesei RUT-C30 and Aspergillus niger LMA grown as fed batch in a stirred tank bioreactor. Biochemical Engineering Journal, 2008, 42, 41-46.	3.6	156
5	Effect of culture medium composition on Trichoderma reeseiâ€™s morphology and cellulase production. Bioresource Technology, 2009, 100, 5979-5987.	9.6	119
6	Immobilization and surface characterization of NeutrAvidin biotin-binding protein on different hydrogel interlayers. Journal of Colloid and Interface Science, 2003, 259, 13-26.	9.4	93
7	Antibacterial Activity of Contact Lenses Bearing Surface-Immobilized Layers of Intact Liposomes Loaded With Levofloxacin. Journal of Pharmaceutical Sciences, 2007, 96, 2350-2363.	3.3	80
8	Fabrication and characterization of contact lenses bearing surface-immobilized layers of intact liposomes. Journal of Biomedical Materials Research - Part A, 2007, 82A, 41-51.	4.0	77
9	Bridging the Gap Between Physicochemistry and Interpretation Prevalent in Cellâ^'Surface Interactions. Chemical Reviews, 2011, 111, 2900-2936.	47.7	76
10	Effect of mechanical agitation on the production of cellulases by Trichoderma reesei RUT-C30 in a draft-tube airlift bioreactor. Biochemical Engineering Journal, 2010, 49, 379-387.	3.6	73
11	Tissue and organ decellularization in regenerative medicine. Biotechnology Progress, 2018, 34, 1494-1505.	2.6	59
12	The role of elastin-derived peptides in human physiology and diseases. Matrix Biology, 2019, 84, 81-96.	3.6	58
13	Decellularized pancreas as a native extracellular matrix scaffold for pancreatic islet seeding and culture. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1230-1237.	2.7	55
14	Immobilized liposome layers for drug delivery applications: inhibition of angiogenesis. Journal of Controlled Release, 2002, 80, 179-195.	9.9	52
15	Oxidized-LDL induce morphological changes and increase stiffness of endothelial cells. Experimental Cell Research, 2008, 314, 3007-3016.	2.6	52
16	Physico-chemical properties and cytotoxicity assessment of PEG-modified liposomes containing human hemoglobin. Colloids and Surfaces B: Biointerfaces, 2008, 65, 239-246.	5.0	51
17	Study of the effect of process parameters for n-heptylamine plasma polymerization on final layer properties. Thin Solid Films, 2007, 515, 6844-6852.	1.8	49
18	Characterization of Surface-Immobilized Layers of Intact Liposomes. Biomacromolecules, 2004, 5, 1496-1502.	5.4	46

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19	Bioactive Microarrays Immobilized on Low-Fouling Surfaces to Study Specific Endothelial Cell Adhesion. Biomacromolecules, 2007, 8, 3668-3673.	5.4	46
20	Young's Moduli of Surface-Bound Liposomes by Atomic Force Microscopy Force Measurements. Langmuir, 2008, 24, 2009-2014.	3.5	41
21	Characterization, degradation, and mechanical strength of poly(D,L-lactide-co-Îµ-caprolactone)-poly(ethylene glycol)-poly(D,L-lactide-co-Îµ-caprolactone). Journal of Biomedical Materials Research - Part A, 2007, 83A, 503-511.	4.0	36
22	The effects of co-culture with fibroblasts and angiogenic growth factors on microvascular maturation and multi-cellular lumen formation in HUVEC-oriented polymer fibre constructs. Biomaterials, 2010, 31, 5091-5099.	11.4	35
23	Bioactive Polymer Fibers to Direct Endothelial Cell Growth in a Three-Dimensional Environment. Biomacromolecules, 2007, 8, 864-873.	5.4	34
24	Development of Dextran-Derivative Arrays To Identify Physicochemical Properties Involved in Biofouling from Serum. Langmuir, 2007, 23, 3290-3297.	3.5	34
25	Control over PEGylated-Liposome Aggregation by NeutrAvidinâ^'Biotin Interactions Investigated by Photon Correlation Spectroscopy. Langmuir, 2002, 18, 505-511.	3.5	33
26	Design and validation of a pulsatile perfusion bioreactor for 3D high cell density cultures. Biotechnology and Bioengineering, 2009, 104, 1215-1223.	3.3	30
27	Culturing INS-1 cells on CDPGYIGSR-, RGD- and fibronectin surfaces improves insulin secretion and cell proliferation. Acta Biomaterialia, 2012, 8, 619-626.	8.3	30
28	Biofouling of dextran-derivative layers investigated by quartz crystal microbalance. Colloids and Surfaces B: Biointerfaces, 2009, 71, 293-299.	5.0	29
29	Drug Delivery Systems Using Immobilized Intact Liposomes: A Comparative and Critical Review. Current Drug Delivery, 2004, 1, 299-312.	1.6	28
30	Immobilization and Characterization of Poly(acrylic acid) Graft Layers. Langmuir, 2002, 18, 10137-10145.	3.5	27
31	Production of functionalized polyhydroxyalkanoates by genetically modified Methylobacterium extorquens strains. Microbial Cell Factories, 2010, 9, 70.	4.0	27
32	Production and characterization of polyhydroxyalkanoates by recombinant Methylobacterium extorquens: Combining desirable thermal properties with functionality. Biochemical Engineering Journal, 2011, 54, 26-33.	3.6	27
33	Young porcine endocrine pancreatic islets cultured in fibrin show improved resistance toward hydrogen peroxide. Islets, 2013, 5, 207-215.	1.8	24
34	Low-Fouling Amine-Terminated Poly(ethylene glycol) Thin Layers and Effect of Immobilization Conditions on Their Mechanical and Physicochemical Properties. Macromolecules, 2006, 39, 8083-8091.	4.8	23
35	Enhanced smooth muscle cell adhesion and proliferation on proteinâ€modified polycaprolactoneâ€based copolymers. Journal of Biomedical Materials Research - Part A, 2009, 88A, 520-530.	4.0	23
36	Liposome Layers Characterized by Quartz Crystal Microbalance Measurements and Multirelease Delivery. Langmuir, 2007, 23, 7679-7686.	3.5	22

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37	In vitro morphogenesis of PANC-1 cells into islet-like aggregates using RGD-covered dextran derivative surfaces. Colloids and Surfaces B: Biointerfaces, 2012, 89, 117-125.	5.0	22
38	Cell adhesion resistance mechanisms using arrays of dextranâ€derivative layers. Journal of Biomedical Materials Research - Part A, 2008, 85A, 1052-1063.	4.0	21
39	Enhancing oxygen solubility using hemoglobin- and perfluorocarbon-based carriers. Frontiers in Bioscience - Landmark, 2009, Volume, 665.	3.0	20
40	Laminin Receptor 37/67LR Regulates Adhesion and Proliferation of Normal Human Intestinal Epithelial Cells. PLoS ONE, 2013, 8, e74337.	2.5	20
41	Biocompatibility and Light Transmission of Liposomal Lenses. Optometry and Vision Science, 2007, 84, 954-961.	1.2	18
42	A model for cellulase production from Trichoderma reesei in an airlift reactor. Biotechnology and Bioengineering, 2012, 109, 2025-2038.	3.3	18
43	Diffusion of rhodamine B and bovine serum albumin in fibrin gels seeded with primary endothelial cells. Colloids and Surfaces B: Biointerfaces, 2012, 93, 202-207.	5.0	17
44	A 3D cell culture system: Separation distance between INSâ€1 cell and endothelial cell monolayers coâ€cultured in fibrin influences INSâ€1 cells insulin secretion. Biotechnology and Bioengineering, 2013, 110, 619-627.	3.3	16
45	Polymer fibers as contact guidance to orient microvascularization in a 3D environment. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1587-1597.	4.0	14
46	PEGylated liposomes encapsulating human hemoglobin enhance oxygen transfer and cell proliferation while decreasing cell hypoxia in fibrin. Biochemical Engineering Journal, 2011, 55, 162-168.	3.6	13
47	A Continuous and Pulsatile Flow Circulation System for Evaluation of Cardiovascular Devices. Artificial Organs, 1998, 22, 746-752.	1.9	12
48	Liposome Characterization by Quartz Crystal Microbalance Measurements and Atomic Force Microscopy. Methods in Enzymology, 2009, 465, 43-73.	1.0	12
49	Endothelial cell responses towards low-fouling surfaces bearing RGD in a three-dimensional environment. Experimental Cell Research, 2011, 317, 1994-2006.	2.6	12
50	Intracellular insulin quantification by cell-ELISA. Experimental Cell Research, 2016, 347, 14-23.	2.6	10
51	Real-time label-free detection and kinetic analysis of Etanerceptâ€”Protein A interactions using quartz crystal microbalance. Colloids and Surfaces B: Biointerfaces, 2017, 149, 312-321.	5.0	9
52	Commercial polyurethanes: The potential influence of auxiliary chemicals on the biodegradation process. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 729-749.	3.5	8
53	Method of imaging low density lipoproteins by atomic force microscopy. Microscopy Research and Technique, 2007, 70, 904-907.	2.2	8
54	Perfluorocarbon Emulsions Cytotoxic Effects on Human Fibroblasts and Effect of Aging on Particle Size Distribution. Artificial Organs, 2007, 31, 649-653.	1.9	8

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55	Smooth muscle cell adhesion in surfaceâ€modified threeâ€dimensional copolymer scaffolds prepared from coâ€continuous blends. Journal of Biomedical Materials Research - Part A, 2009, 91A, 305-315.	4.0	8
56	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. , 1999, 48, 660-668.		7
57	Flow dynamics within a bioreactor for tissue engineering by residence time distribution analysis combined with fluorescence and magnetic resonance imaging to investigate forced permeability and apparent diffusion coefficient in a perfusion cell culture chamber. Biotechnology and Bioengineering, 2011, 108, 2488-2498.	3.3	7
58	An Inâ€situ glucoseâ€stimulated insulin secretion assay under perfusion bioreactor conditions. Biotechnology Progress, 2017, 33, 454-462.	2.6	7
59	Solution composition impacts fibronectin immobilization on carboxymethyl-dextran surfaces and INS-1 insulin secretion. Colloids and Surfaces B: Biointerfaces, 2012, 95, 266-273.	5.0	6
60	INS-1 cell glucose-stimulated insulin secretion is reduced by the downregulation of the 67â€‰kDa laminin receptor. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 1376-1385.	2.7	6
61	Biomimetic Surfaces Supporting Dissociated Pancreatic Islet Cultures. Colloids and Surfaces B: Biointerfaces, 2017, 159, 166-173.	5.0	6
62	Composition, host responses and clinical applications of bioadhesives. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 0, , .	3.4	6
63	Bioreactor controlled by PI algorithm and operated with a perfusion chamber to support endothelial cell survival and proliferation. Biotechnology and Bioengineering, 2012, 109, 1305-1313.	3.3	5
64	Insulin secretion kinetics from single islets reveals distinct subpopulations. Biotechnology Progress, 2018, 34, 1059-1068.	2.6	5
65	Culturing Free-Floating and Fibrin-Embedded Islets with Endothelial Cells: Effects on Insulin Secretion and Apoptosis. Cellular and Molecular Bioengineering, 2014, 7, 243-253.	2.1	4
66	Method for isolation of pancreatic blood vessels, their culture and coculture with islets of langerhans. Biotechnology Progress, 2019, 35, e2745.	2.6	3
67	Overview of approval procedures for bioadhesives in the United States of America and Canada. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 950-966.	3.4	3
68	Quartz crystal microbalance as an assay to detect anti-drug antibodies for the immunogenicity assessment of therapeutic biologics. Analytical and Bioanalytical Chemistry, 2017, 409, 7153-7167.	3.7	2
69	Toward an integrated biotechnological engineering education program: a Canadian perspective. Nature Biotechnology, 2003, 21, 1525-1527.	17.5	1
70	Three-dimensional spatial localization of thin fluorophore-filled capillaries in thick scattering media. , 2008, , .		1
71	A factorial design to identify process parameters affecting whole mechanically disrupted rat pancreata in a perfusion bioreactor. Biotechnology Progress, 2018, 34, 432-444.	2.6	1
72	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. Journal of Biomedical Materials Research Part B, 1999, 48, 660-668.	3.1	1

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73	Imaging growth of thick engineered tissues with fluorescence diffuse optical tomography. , 2007, , .		0
74	Fluorescence diffuse optical tomography measurements for tissue engineering. , 2007, , .		0
75	Reconstruction of thin fluorophore-filled capillaries in thick scattering medium using fluorescence diffuse optical tomography within the diffusion approximation. , 2009, , .		0
76	In situ positron emission tomography monitoring of endothelial cells embedded in perfused fibrin gels. Process Biochemistry, 2013, 48, 1645-1650.	3.7	0
77	Multiple-Condition Analysis in a Retrievable Subcutaneous Animal Model for Drug Screening on Full Pancreatic Tissue Digest. Assay and Drug Development Technologies, 2018, 16, 462-471.	1.2	0
78	Characterization of threeâ€dimensional rat central nervous system culture maturation, with applications to monitor cholinergic integrity. Biotechnology Progress, 2020, 36, e2976.	2.6	0