

Vincent Chan

List of Publications by Year in descending order

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103
papers

2,997
citations

147566

31
h-index

189595

50
g-index

108
all docs

108
docs citations

108
times ranked

4032
citing authors

#	ARTICLE	IF	CITATIONS
1	The biophysics of DNA hybridization with immobilized oligonucleotide probes. <i>Biophysical Journal</i> , 1995, 69, 2243-2255.	0.2	205
2	Interactions of Phospholipid Bilayer with Chitosan: Effect of Molecular Weight and pH. <i>Biomacromolecules</i> , 2001, 2, 1161-1168.	2.6	198
3	Engineering closed-cell structure in lightweight and flexible carbon foam composite for high-efficient electromagnetic interference shielding. <i>Carbon</i> , 2018, 136, 299-308.	5.4	117
4	Human red blood cell deformed under thermal fluid flow. <i>Biomedical Materials (Bristol)</i> , 2006, 1, 1-7.	1.7	112
5	Adsorption and Surface Diffusion of DNA Oligonucleotides at Liquid/Solid Interfaces. <i>Langmuir</i> , 1997, 13, 320-329.	1.6	111
6	Full-scale temperature response function (G-function) for heat transfer by borehole ground heat exchangers (GHEs) from sub-hour to decades. <i>Applied Energy</i> , 2014, 136, 197-205.	5.1	84
7	Dynamic Kinetic Resolution of Atropisomeric Amides. <i>Organic Letters</i> , 2004, 6, 2051-2053.	2.4	83
8	Three-Dimensional Microchannels in Biodegradable Polymeric Films for Control Orientation and Phenotype of Vascular Smooth Muscle Cells. <i>Tissue Engineering</i> , 2006, 12, 2229-2240.	4.9	81
9	Transient Analysis of Electroosmotic Flow in a Slit Microchannel. <i>Journal of Colloid and Interface Science</i> , 2002, 248, 524-527.	5.0	73
10	Effect of Hydrophobicity and Electrostatics on Adsorption and Surface Diffusion of DNA Oligonucleotides at Liquid/Solid Interfaces. <i>Journal of Colloid and Interface Science</i> , 1998, 203, 197-207.	5.0	69
11	Enhanced drug delivery, mechanical properties and antimicrobial activities in poly(lactic acid) nanofiber with mesoporous Fe ₃ O ₄ -COOH nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 559, 104-114.	2.3	68
12	MnCo ₂ O ₄ @nitrogen-doped carbon nanofiber composites with meso-microporous structure for high-performance symmetric supercapacitors. <i>Journal of Alloys and Compounds</i> , 2019, 782, 251-262.	2.8	68
13	Regulating orientation and phenotype of primary vascular smooth muscle cells by biodegradable films patterned with arrays of microchannels and discontinuous microwalls. <i>Biomaterials</i> , 2010, 31, 6228-6238.	5.7	61
14	Adhesion contact dynamics of HepG2 cells on galactose-immobilized substrates. <i>Biomaterials</i> , 2003, 24, 837-850.	5.7	54
15	Disinfection efficacy of ultraviolet germicidal irradiation on airborne bacteria in ventilation ducts. <i>Indoor Air</i> , 2018, 28, 806-817.	2.0	47
16	Covalent layer-by-layer assembly of polyethyleneimine multilayer for antibacterial applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2010, 95A, 454-464.	2.1	46
17	Cellular Graphene: Fabrication, Mechanical Properties, and Strain-Sensing Applications. <i>Matter</i> , 2019, 1, 1148-1202.	5.0	46
18	The effect of adhesive ligands on bacterial and fibroblast adhesions to surfaces. <i>Biomaterials</i> , 2009, 30, 317-326.	5.7	45

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19	Interaction between O-carboxymethylchitosan and dipalmitoyl-sn-glycero-3-phosphocholine bilayer. <i>Biomaterials</i> , 2005, 26, 6873-6879.	5.7	44
20	Bacteria's surface interaction in the presence of proteins and surface attached poly(ethylene glycol) methacrylate chains. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 82A, 479-491.	2.1	44
21	Solubility of lovastatin in a family of six alcohols: Ethanol, 1-propanol, 1-butanol, 1-pentanol, 1-hexanol, and 1-octanol. <i>International Journal of Pharmaceutics</i> , 2008, 359, 111-117.	2.6	44
22	Combinatorial effect of substratum properties on mesenchymal stem cell sheet engineering and subsequent multi-lineage differentiation. <i>Acta Biomaterialia</i> , 2015, 23, 52-62.	4.1	44
23	Chitosan-Induced Restructuration of a Mica-Supported Phospholipid Bilayer: An Atomic Force Microscopy Study. <i>Biomacromolecules</i> , 2003, 4, 1596-1604.	2.6	42
24	Chitosan-Induced Perturbation of Dipalmitoyl-sn-glycero-3-phosphocholine Membrane Bilayer. <i>Langmuir</i> , 2001, 17, 3749-3756.	1.6	40
25	Adhesion contact dynamics of 3T3 fibroblasts on poly (lactide-co-glycolide acid) surface modified by photochemical immobilization of biomacromolecules. <i>Biomaterials</i> , 2006, 27, 2566-2576.	5.7	39
26	Dynamics of smooth muscle cell deadhesion from thermosensitive hydroxybutyl chitosan. <i>Biomaterials</i> , 2007, 28, 1503-1514.	5.7	38
27	Influence of mechanical ventilation system on indoor carbon dioxide and particulate matter concentration. <i>Building and Environment</i> , 2014, 76, 73-80.	3.0	38
28	Development and Applications of MOFs Derivative One-Dimensional Nanofibers via Electrospinning: A Mini-Review. <i>Nanomaterials</i> , 2019, 9, 1306.	1.9	38
29	Hydrogels Based on Dual Curable Chitosan-graft-Polyethylene Glycol-graft-Methacrylate: Application to Layer-by-Layer Cell Encapsulation. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 2012-2025.	4.0	37
30	UV-embossed microchannel in biocompatible polymeric film: Application to control of cell shape and orientation of muscle cells. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2006, 77B, 423-430.	1.6	36
31	MXene-carbon nanotubes layer-by-layer assembly based on-chip micro-supercapacitor with improved capacitive performance. <i>Electrochimica Acta</i> , 2021, 386, 138420.	2.6	34
32	Inorganic/polymer-graphene hybrid gel as versatile electrochemical platform for electrochemical capacitor and biosensor. <i>Carbon</i> , 2018, 132, 589-597.	5.4	32
33	Rac1 GTPase is activated by hepatitis B virus replication - involvement of HBX. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2008, 1783, 360-374.	1.9	29
34	Constitutive equation for elastic indentation of a thin-walled bio-mimetic microcapsule by an atomic force microscope tip. <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 27, 241-248.	2.5	28
35	Thermal-Induced Modification of the Contact Mechanics of Adhering Liposomes. <i>Langmuir</i> , 2002, 18, 3134-3141.	1.6	25
36	Quick Layer-by-Layer Assembly of Aligned Multilayers of Vascular Smooth Muscle Cells in Deep Microchannels. <i>Tissue Engineering</i> , 2007, 13, 1003-1012.	4.9	25

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37	Fabrication of polylactic acid/paclitaxel nano fibers by electrospinning for cancer therapeutics. <i>BMC Chemistry</i> , 2020, 14, 63.	1.6	25
38	Interaction of Liposome with Immobilized Chitosan during Main Phase Transition. <i>Biomacromolecules</i> , 2003, 4, 581-588.	2.6	24
39	Engineering cell de-adhesion dynamics on thermoresponsive poly(N-isopropylacrylamide). <i>Acta Biomaterialia</i> , 2008, 4, 218-229.	4.1	24
40	Modulating Cell Adhesion Dynamics on Carbon Nanotube Monolayer Engineered with Extracellular Matrix Proteins. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 1038-1047.	4.0	24
41	Biomechanical study of the edge outgrowth phenomenon of encapsulated chondrocytic isogenous groups in the surface layer of hydrogel scaffolds for cartilage tissue engineering. <i>Acta Biomaterialia</i> , 2012, 8, 244-252.	4.1	24
42	Microfluidic Assay To Study the Combinatorial Impact of Substrate Properties on Mesenchymal Stem Cell Migration. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17095-17103.	4.0	24
43	The influence of GFP-actin expression on the adhesion dynamics of HepG2 cells on a model extracellular matrix. <i>Biomaterials</i> , 2005, 26, 5348-5358.	5.7	23
44	Adhesion contact dynamics of primary hepatocytes on poly(ethylene terephthalate) surface. <i>Biomaterials</i> , 2005, 26, 891-898.	5.7	22
45	The HBSP gene is expressed during HBV replication, and its coded BH3-containing spliced viral protein induces apoptosis in HepG2 cells. <i>Biochemical and Biophysical Research Communications</i> , 2006, 351, 64-70.	1.0	22
46	Solubility and limiting activity coefficient of simvastatin in different organic solvents. <i>Fluid Phase Equilibria</i> , 2009, 280, 35-41.	1.4	22
47	Experimental and numerical determination of cellular traction force on polymeric hydrogels. <i>Interface Focus</i> , 2011, 1, 777-791.	1.5	22
48	Adhesion Contact Dynamics of Fibroblasts on Biomacromolecular Surfaces. <i>Macromolecular Bioscience</i> , 2005, 5, 1022-1031.	2.1	21
49	Adhesion contact kinetics of HepG2 cells during Hepatitis B virus replication: Involvement of SH3-binding motif in HBX. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2006, 1762, 755-766.	1.8	21
50	Engineering Sustainable Antimicrobial Release in Silica-Cellulose Membrane with CaCO ₃ -Aided Processing for Wound Dressing Application. <i>Polymers</i> , 2019, 11, 808.	2.0	21
51	Capsule-substrate contact deformation: Determination of adhesion energy. <i>Medical and Biological Engineering and Computing</i> , 2002, 40, 491-495.	1.6	20
52	Thermal Effect on a Viscously Deformed Liposome in a Laser Trap. <i>Annals of Biomedical Engineering</i> , 2003, 31, 354-362.	1.3	20
53	Antimicrobial hydroxyapatite reinforced-polyelectrolyte complex nanofibers with long-term controlled release activity for potential wound dressing application. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 624, 126722.	2.3	20
54	Colloidal adhesion of phospholipid vesicles: high-resolution reflection interference contrast microscopy and theory. <i>Colloids and Surfaces B: Biointerfaces</i> , 2002, 25, 347-362.	2.5	19

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55	Synergistic effect of graphene oxide-silver nanofillers on engineering performances of polyelectrolyte complex nanofiber membranes. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46238.	1.3	19
56	Recent Advances in Fluorescence Recovery after Photobleaching for Decoupling Transport and Kinetics of Biomacromolecules in Cellular Physiology. <i>Polymers</i> , 2022, 14, 1913.	2.0	19
57	Development and experimental validation of a mathematical model for the irradiance of in-duct ultraviolet germicidal lamps. <i>Building and Environment</i> , 2019, 152, 160-171.	3.0	17
58	A multi-module microfluidic platform for continuous pre-concentration of water-soluble ions and separation of oil droplets from oil-in-water (O/W) emulsions using a DC-biased AC electrokinetic technique. <i>Electrophoresis</i> , 2017, 38, 645-652.	1.3	16
59	Dual-functional Ti ₃ C ₂ MXene for wastewater treatment and electrochemical energy storage. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3566-3573.	2.5	16
60	pH responsive adhesion of phospholipid vesicle on poly(acrylic acid) cushion grafted to poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.5	13
61	BHEM-Chol/DOPE liposome induced perturbation of phospholipid bilayer. <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 29, 233-245.	2.5	12
62	Hepatitis B virus induced coupling of deadhesion and migration of HepG2 cells on thermo-responsive polymer. <i>Biomaterials</i> , 2010, 31, 1894-1903.	5.7	12
63	Aligned 3D human aortic smooth muscle tissue via layer by layer technique inside microchannels with novel combination of collagen and oxidized alginate hydrogel. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 98A, 235-244.	2.1	12
64	Continuous Droplet-Based Liquid-Liquid Extraction of Phenol from Oil. <i>Separation Science and Technology</i> , 2015, 50, 1023-1029.	1.3	12
65	Progress in Integrative Biomaterial Systems to Approach Three-Dimensional Cell Mechanotransduction. <i>Bioengineering</i> , 2017, 4, 72.	1.6	12
66	Contact Deformation of Liposome in the Presence of Osmosis. <i>Annals of Biomedical Engineering</i> , 2003, 31, 1279-1286.	1.3	11
67	Bioadhesive characterization of poly(methylidene malonate 2.12) microparticle on model extracellular matrix. <i>Biomaterials</i> , 2004, 25, 4327-4332.	5.7	11
68	Adhesion dynamics of porcine esophageal fibroblasts on extracellular matrix protein-functionalized poly(lactic acid). <i>Biomedical Materials (Bristol)</i> , 2008, 3, 015014.	1.7	11
69	Collective cell traction force analysis on aligned smooth muscle cell sheet between three-dimensional microwalls. <i>Interface Focus</i> , 2014, 4, 20130056.	1.5	11
70	Molecular engineering of supercapacitor electrodes with monodispersed N-doped carbon nanoporous spheres. <i>New Journal of Chemistry</i> , 2019, 43, 15892-15898.	1.4	11
71	Substrate-induced deformation and adhesion of phospholipid vesicles at the main phase transition. <i>Biophysical Chemistry</i> , 2002, 99, 245-258.	1.5	10
72	Shape Recovery of an Optically Trapped Vesicle: Effect of Flow Velocity and Temperature. <i>IEEE Transactions on Nanobioscience</i> , 2004, 3, 96-100.	2.2	9

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73	Biomaterials patterned with discontinuous microwalls for vascular smooth muscle cell culture: biodegradable small diameter vascular grafts and stable cell culture substrates. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2016, 27, 1477-1494.	1.9	9
74	Continuous detection of trace level concentration of oil droplets in water using microfluidic AC electroosmosis (ACEO). <i>RSC Advances</i> , 2015, 5, 70197-70203.	1.7	8
75	Engineering 3D-architected Gyroid MXene Scaffolds for Ultrasensitive Micromechanical Sensing. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	8
76	Crystalline fibers in chemically polymerized ultrathin polypyrrole films. <i>Journal of Applied Physics</i> , 1995, 77, 6658-6663.	1.1	7
77	Dual requirements of extracellular matrix protein and chitosan for inducing adhesion contact evolution of esophageal epithelia. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 82A, 788-801.	2.1	7
78	Engineering bio-adhesive functions in an antimicrobial polymer multilayer. <i>Biomedical Materials (Bristol)</i> , 2015, 10, 015015.	1.7	7
79	Study of synergistic disinfection by UVC and positive/negative air ions for aerosolized <i>Escherichia coli</i> , <i>Salmonella typhimurium</i> , and <i>Staphylococcus epidermidis</i> in ventilation duct flow. <i>Indoor Air</i> , 2022, 32, .	2.0	7
80	Thermal induced modification of the contact mechanics of adhering liposomes on cationic substrate. <i>Chemistry and Physics of Lipids</i> , 2002, 120, 131-143.	1.5	6
81	Coupling bending and shear effects on liposome deformation. <i>Journal of Biomechanics</i> , 2006, 39, 2338-2343.	0.9	6
82	Neuronal differentiation of human placenta-derived multi-potent stem cells enhanced by cell body oscillation on gelatin hydrogel. <i>Journal of Bioactive and Compatible Polymers</i> , 2014, 29, 529-544.	0.8	6
83	Biomechanistic Study of Smooth Muscle Cell Sheet during Circumferential Alignment in Circular Micropatterns. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 549-558.	2.6	6
84	Aminal/Schiff-Base Polymer to Fabricate Nitrogen-Doped Porous Carbon Nanospheres for High-Performance Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 3859-3865.	1.7	6
85	MnO _{1.88} /R-MnO ₂ /Ti ₃ C ₂ (OH/F) _x composite electrodes for high-performance pseudo-supercapacitors prepared from reduced MXenes. <i>New Journal of Chemistry</i> , 2020, 44, 6583-6588.	1.4	6
86	The role of bifurcation angles on collective smooth muscle cell biomechanics and the implication in atherosclerosis development. <i>Biomaterials Science</i> , 2016, 4, 430-438.	2.6	5
87	Effect of acyl chain mismatch on the contact mechanics of two-component phospholipid vesicle during main phase transition. <i>Biophysical Chemistry</i> , 2003, 104, 141-153.	1.5	4
88	Temporal Effect of Functional Blocking of β 1 Integrin on Cell Adhesion Strength under Serum Depletion. <i>Langmuir</i> , 2009, 25, 10939-10947.	1.6	4
89	Effect of cytoskeleton inhibitors on deadhesion kinetics of HepG2 cells on biomimetic surface. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 75, 67-74.	2.5	4
90	Experimental and theoretical characterization of the interfacial adhesion of 2D heterogeneous materials: A review. <i>Journal of Micromechanics and Molecular Physics</i> , 2021, 06, 31-48.	0.7	4

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91	The effect of electrostatics on the contact mechanics of adherent phospholipid vesicles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 27, 83-94.	2.5	2
92	Effects of carbon chain difference and lipid composition on the contact mechanics of two-component vesicle. <i>Colloids and Surfaces B: Biointerfaces</i> , 2003, 32, 19-28.	2.5	2
93	Epigallocatechinâ€³â€gallate induced modulation of cell deadhesion and migration on thermosensitive poly(Nâ€isopropylacrylamide). <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 98A, 450-460.	2.1	2
94	Cyclopropylamine modified plasma polymerised poly(methyl methacrylate) thin films for cell culture. <i>International Journal of Nanotechnology</i> , 2017, 14, 1045.	0.1	2
95	Scalable synthesis, characterization and testing of 3D architected gyroid graphene lattices from additively manufactured templates. <i>Journal of Micromechanics and Molecular Physics</i> , 2021, 06, 13-24.	0.7	2
96	Numerical computations of Factor Xa and thrombin productions using a finite-volume method. <i>International Journal of Heat and Mass Transfer</i> , 2002, 45, 785-792.	2.5	1
97	A quantitative contour analysis of axisymmetric vesicles spontaneously adhering onto a substrate. <i>Colloids and Surfaces B: Biointerfaces</i> , 2004, 34, 25-31.	2.5	1
98	Nanoengineering life: from cell to tissue. <i>Interface Focus</i> , 2011, 1, 699-701.	1.5	1
99	pH-responsive kinematics of photocatalytic degradation of Rh B with polypyrene microspheres. <i>Materials Research Express</i> , 2019, 6, 105916.	0.8	1
100	Proteomics Based Identification of Cell Migration Related Proteins in HBV Expressing HepG2 Cells. <i>PLoS ONE</i> , 2014, 9, e95621.	1.1	1
101	Effect of adhesive ligand on cell deadhesion kinetics on poly(N-isopropylacrylamide). <i>Bio-Medical Materials and Engineering</i> , 2014, 24, 1433-1445.	0.4	0
102	Lightweight and Flexible Carbon Foam Composite for High-efficient Electromagnetic Interference Shielding. , 0, , .		0
103	Novel Biophysical Techniques for Investigating Long-Term Cell Adhesion Dynamics on Biomaterial Surfaces. , 2006, 585, 151-165.		0