

# Maria Vamvakaki

## List of Publications by Year in descending order

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130  
papers

6,625  
citations

47004

47  
h-index

66906

78  
g-index

138  
all docs

138  
docs citations

138  
times ranked

7319  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-Low Shrinkage Hybrid Photosensitive Material for Two-Photon Polymerization Microfabrication. <i>ACS Nano</i> , 2008, 2, 2257-2262.	14.6	443
2	Synthesis and Characterization of Vinyl Polymer-Silica Colloidal Nanocomposites. <i>Langmuir</i> , 2000, 16, 6913-6920.	3.5	244
3	Field responsive materials: photo-, electro-, magnetic- and ultrasound-sensitive polymers. <i>Polymer Chemistry</i> , 2017, 8, 74-96.	3.9	244
4	Multiresponsive polymers: nano-sized assemblies, stimuli-sensitive gels and smart surfaces. <i>Polymer Chemistry</i> , 2011, 2, 1234.	3.9	205
5	Structure of pH-Dependent Block Copolymer Micelles: Charge and Ionic Strength Dependence. <i>Macromolecules</i> , 2002, 35, 8540-8551.	4.8	191
6	Three-Dimensional Biodegradable Structures Fabricated by Two-Photon Polymerization. <i>Langmuir</i> , 2009, 25, 3219-3223.	3.5	177
7	Diffusion-Assisted High-Resolution Direct Femtosecond Laser Writing. <i>ACS Nano</i> , 2012, 6, 2302-2311.	14.6	173
8	Multiphoton polymerization of hybrid materials. <i>Journal of Optics (United Kingdom)</i> , 2010, 12, 124001.	2.2	142
9	Synthesis of Controlled Structure Water-Soluble Diblock Copolymers via Oxyanionic Polymerization. <i>Macromolecules</i> , 1999, 32, 2088-2090.	4.8	137
10	Nanoscale Cationic Methacrylate Star Homopolymers: Synthesis by Group Transfer Polymerization, Characterization and Evaluation as Transfection Reagents. <i>Biomacromolecules</i> , 2004, 5, 2221-2229.	5.4	129
11	Copolymers of amine methacrylate with poly(ethylene glycol) as vectors for gene therapy. <i>Journal of Controlled Release</i> , 2001, 73, 359-380.	9.9	125
12	From superhydrophobicity and water repellency to superhydrophilicity: smart polymer-functionalized surfaces. <i>Chemical Communications</i> , 2010, 46, 4136.	4.1	123
13	Three-Dimensional Infrared Metamaterial with Asymmetric Transmission. <i>ACS Photonics</i> , 2015, 2, 287-294.	6.6	122
14	Shrinkage of microstructures produced by two-photon polymerization of Zr-based hybrid photosensitive materials. <i>Optics Express</i> , 2009, 17, 2143.	3.4	121
15	Biodegradation of weathered polystyrene films in seawater microcosms. <i>Scientific Reports</i> , 2017, 7, 17991.	3.3	121
16	Harnessing photochemical internalization with dual degradable nanoparticles for combinatorial photochemotherapy. <i>Nature Communications</i> , 2014, 5, 3623.	12.8	120
17	The effect of poly(ethylene glycol) molecular architecture on cellular interaction and uptake of DNA complexes. <i>Journal of Controlled Release</i> , 2004, 97, 143-156.	9.9	118
18	Photodegradable Polymers for Biotechnological Applications. <i>Macromolecular Rapid Communications</i> , 2012, 33, 183-198.	3.9	111

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19	Ag-loaded TiO <sub>2</sub> /reduced graphene oxide nanocomposites for enhanced visible-light photocatalytic activity. <i>Applied Surface Science</i> , 2015, 353, 865-872.	6.1	108
20	Synthesis, Characterization, and Evaluation as Transfection Reagents of Double-Hydrophilic Star Copolymers: A Effect of Star Architecture. <i>Biomacromolecules</i> , 2005, 6, 2990-2997.	5.4	97
21	Multiresponsive Spiropyran-Based Copolymers Synthesized by Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2010, 43, 7073-7081.	4.8	92
22	Three-Dimensional Metallic Photonic Crystals with Optical Bandgaps. <i>Advanced Materials</i> , 2012, 24, 1101-1105.	21.0	88
23	Light-Regulated Supramolecular Engineering of Polymeric Nanocapsules. <i>Journal of the American Chemical Society</i> , 2012, 134, 5726-5729.	13.7	82
24	Synthesis and Characterization of Electrolytic Amphiphilic Model Networks Based on Cross-linked Star Polymers: A Effect of Star Architecture. <i>Chemistry of Materials</i> , 2002, 14, 1630-1638.	6.7	81
25	Dynamic Light Scattering vs <sup>1</sup> H NMR Investigation of pH-Responsive Diblock Copolymers in Water. <i>Macromolecules</i> , 2006, 39, 5106-5112.	4.8	81
26	3D conducting nanostructures fabricated using direct laser writing. <i>Optical Materials Express</i> , 2011, 1, 586.	3.0	80
27	Synthesis, Characterization, and Modeling of Cationic Amphiphilic Model Hydrogels: A Effects of Polymer Composition and Architecture. <i>Macromolecules</i> , 2002, 35, 2506-2513.	4.8	77
28	Two-photon polymerization of titanium-containing sol-gel composites for three-dimensional structure fabrication. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 359-364.	2.3	74
29	Metal Nanocrystals Incorporated within pH-Responsive Microgel Particles. <i>Langmuir</i> , 2007, 23, 5761-5768.	3.5	73
30	Selective betainisation of tertiary amine methacrylate block copolymers. <i>Journal of Materials Chemistry</i> , 1997, 7, 1693-1695.	6.7	72
31	Effect of Partial Quaternization on the Aqueous Solution Properties of Tertiary Amine-Based Polymeric Surfactants: A Unexpected Separation of Surface Activity and Cloud Point Behavior. <i>Macromolecules</i> , 2001, 34, 6839-6841.	4.8	71
32	End-Grafted Polymer Chains onto Inorganic Nano-Objects. <i>Materials</i> , 2010, 3, 1981-2026.	2.9	71
33	Polymerization mechanisms initiated by spatio-temporally confined light. <i>Nanophotonics</i> , 2021, 10, 1211-1242.	6.0	71
34	Layer-by-Layer Formation of Smart Particle Coatings Using Oppositely Charged Block Copolymer Micelles. <i>Advanced Materials</i> , 2007, 19, 247-250.	21.0	67
35	Micellization in pH-sensitive amphiphilic block copolymers in aqueous media and the formation of metal nanoparticles. <i>Faraday Discussions</i> , 2005, 128, 129.	3.2	65
36	Mechanical and Electrical Properties Investigation of 3D-Printed Acrylonitrile-Butadiene-Styrene Graphene and Carbon Nanocomposites. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 1909-1918.	2.5	63

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37	Influence of polymer architecture on the structure of complexes formed by PEG-tertiary amine methacrylate copolymers and phosphorothioate oligonucleotide. <i>Journal of Controlled Release</i> , 2002, 81, 185-199.	9.9	62
38	Pre-osteoblastic cell response on three-dimensional, organic-inorganic hybrid material scaffolds for bone tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 2283-2294.	4.0	56
39	Synthesis and Characterization of Novel Networks with Nano-Engineered Structures: A Cross-Linked Star Homopolymers. <i>Chemistry of Materials</i> , 2001, 13, 4738-4744.	6.7	54
40	Amphiphilic Networks Based on Cross-Linked Star Polymers: A Small-Angle Neutron Scattering Study. <i>Langmuir</i> , 2007, 23, 10433-10437.	3.5	54
41	Synthesis and Characterization of Double-Hydrophilic Model Networks Based on Cross-linked Star Polymers of Poly(ethylene glycol) Methacrylate and Methacrylic Acid. <i>Macromolecules</i> , 2002, 35, 4903-4911.	4.8	53
42	Laser-Induced Cell Detachment and Patterning with Photodegradable Polymer Substrates. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4142-4145.	13.8	53
43	Synthesis and aqueous solution properties of novel neutral/acidic block copolymers. <i>Polymer</i> , 2000, 41, 3173-3182.	3.8	52
44	Fabrication of three-dimensional photonic crystal structures containing an active nonlinear optical chromophore. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 93, 11-15.	2.3	51
45	Polyelectrolytic Amphiphilic Model Networks in Water: A Molecular Thermodynamic Theory for Their Microphase Separation. <i>Journal of Physical Chemistry B</i> , 2001, 105, 4979-4986.	2.6	48
46	Film Properties and Antimicrobial Efficacy of Quaternized PDMAEMA Brushes: Short vs Long Alkyl Chain Length. <i>Langmuir</i> , 2020, 36, 3482-3493.	3.5	48
47	Amphiphilic diblock and ABC triblock methacrylate copolymers: synthesis and aqueous solution characterization. <i>Polymer</i> , 2002, 43, 2921-2926.	3.8	47
48	Microphase separation under constraints: a molecular thermodynamic theory for polyelectrolytic amphiphilic model networks in water. <i>Polymer</i> , 2004, 45, 7341-7355.	3.8	47
49	Synthesis and characterization of novel glycosurfaces by ATRP. <i>Soft Matter</i> , 2009, 5, 1621.	2.7	47
50	3D microoptical elements formed in a photostructurable germanium silicate by direct laser writing. <i>Optics and Lasers in Engineering</i> , 2012, 50, 1785-1788.	3.8	46
51	Redox Multiphoton Polymerization for 3D Nanofabrication. <i>Nano Letters</i> , 2013, 13, 3831-3835.	9.1	46
52	Adhesion and growth of human bone marrow mesenchymal stem cells on precise-geometry 3D organic-inorganic composite scaffolds for bone repair. <i>Materials Science and Engineering C</i> , 2015, 48, 301-309.	7.3	45
53	Mineralized self-assembled peptides on 3D laser-made scaffolds: a new route toward a scaffold on scaffold™ hard tissue engineering. <i>Biofabrication</i> , 2013, 5, 045002.	7.1	44
54	Membranes for Organic Solvent Nanofiltration Based on Preassembled Nanoparticles. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 1109-1121.	3.7	44

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55	Synthesis and aqueous solution characterization of novel diblock polyampholytes containing imidazole. <i>Polymer</i> , 2002, 43, 7269-7273.	3.8	41
56	Synthesis of novel cationic polymeric surfactants. <i>Polymer</i> , 2000, 41, 8501-8511.	3.8	39
57	Synthesis and Characterization of Polyampholytic Model Networks: Effects of Polymer Composition and Architecture. <i>Macromolecules</i> , 2002, 35, 2252-2260.	4.8	39
58	Amphoterics Core-Shell Microgels: Contraphilic Two-Compartment Colloidal Particles. <i>Langmuir</i> , 2010, 26, 639-647.	3.5	39
59	Multiphoton 3D Printing of Biopolymer-Based Hydrogels. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 6161-6170.	5.2	39
60	Microporous Polystyrene Particles for Selective Carbon Dioxide Capture. <i>Langmuir</i> , 2012, 28, 2690-2695.	3.5	38
61	A facile route towards PDMAEMA homopolymer amphiphiles. <i>Soft Matter</i> , 2017, 13, 3777-3782.	2.7	38
62	Cationic Amphiphilic Model Networks Based on Symmetrical ABCBA Pentablock Terpolymers: Synthesis, Characterization, and Modeling. <i>Biomacromolecules</i> , 2007, 8, 1615-1623.	5.4	37
63	Cationic Double-Hydrophilic Model Networks: Synthesis, Characterization, Modeling and Protein Adsorption Studies. <i>Biomacromolecules</i> , 2003, 4, 1150-1160.	5.4	36
64	Triple-Responsive Block Copolymer Micelles with Synergistic pH and Temperature Response. <i>Macromolecules</i> , 2018, 51, 6848-6858.	4.8	35
65	Diol boronic acid complexes integrated by responsive polymers a route to chemical sensing and logic operations. <i>Soft Matter</i> , 2009, 5, 3839.	2.7	34
66	Characterization of Layer-by-Layer Self-Assembled Multilayer Films of Diblock Copolymer Micelles. <i>Langmuir</i> , 2008, 24, 116-123.	3.5	33
67	Nanomechanical properties of hybrid coatings for bone tissue engineering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 25, 48-62.	3.1	33
68	Three different types of quasi-model networks: synthesis by group transfer polymerization and characterization. <i>Polymer Bulletin</i> , 2007, 58, 185-190.	3.3	32
69	Synthesis and characterization of the swelling and mechanical properties of amphiphilic ionizable model co-networks containing n-butyl methacrylate hydrophobic blocks. <i>Soft Matter</i> , 2008, 4, 268-276.	2.7	32
70	Recombinant human bone morphogenetic protein 2 (rhBMP-2) immobilized on laser-fabricated 3D scaffolds enhance osteogenesis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 149, 233-242.	5.0	32
71	Solid-contact ion-selective electrode with stable internal electrode. <i>Analytica Chimica Acta</i> , 1996, 320, 53-61.	5.4	30
72	Antimicrobial Hybrid Coatings Combining Enhanced Biocidal Activity under Visible-Light Irradiation with Stimuli-Renewable Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17183-17195.	8.0	30

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73	Synthesis of water-soluble statistical copolymers and terpolymers containing pendent oligo(ethylene Tj ETQq1 1 0,784314 rgBT /Overlock 10 Tf 50 38	3.8	26
74	Synthesis of novel block and statistical methacrylate-based ionomers containing acidic, basic or betaine residues. Polymer, 1998, 39, 2331-2337.	3.8	25
75	Synthesis, Characterization, and Evaluation as Emulsifiers of Amphiphilic <sup>+</sup> Ionizable Aromatic Methacrylate ABC Triblock Terpolymers. Macromolecules, 2004, 37, 7181-7187.	4.8	24
76	Metal Nanocrystals Embedded within Polymeric Nanostructures: Effect of Polymer-Metal Compound Interactions. Topics in Catalysis, 2009, 52, 394-411.	2.8	23
77	Initiator <sup>+</sup> Free, Multiphoton Polymerization of Gelatin Methacrylamide. Macromolecular Materials and Engineering, 2018, 303, 1800458.	3.6	23
78	Osteogenic Potential of Pre-Osteoblastic Cells on a Chitosan-graft-Polycaprolactone Copolymer. Materials, 2018, 11, 490.	2.9	23
79	Following the Synthesis of Metal Nanoparticles within pH-Responsive Microgel Particles by SAXS. Macromolecules, 2010, 43, 9828-9836.	4.8	22
80	Immunomodulatory Potential of Chitosan- <i>graft</i> -poly( $\mu$ -caprolactone) Copolymers toward the Polarization of Bone-Marrow-Derived Macrophages. ACS Biomaterials Science and Engineering, 2017, 3, 1341-1349.	5.2	22
81	Complex ZnO-TiO <sub>2</sub> Core <sup>+</sup> Shell Flower-Like Architectures with Enhanced Photocatalytic Performance and Superhydrophilicity without UV Irradiation. Langmuir, 2018, 34, 9122-9132.	3.5	22
82	Transformations of Poly(methoxy hexa(ethylene glycol) methacrylate)-b-(2-(diethylamino)ethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	3.5	21
83	Biodegradable Chitosan-graft-Poly(l-lactide) Copolymers For Bone Tissue Engineering. Polymers, 2020, 12, 316.	4.5	21
84	Responsive Quaternized PDMAEMA Copolymers with Antimicrobial Action. Polymers, 2021, 13, 3051.	4.5	21
85	Synthesis, characterization and evaluation of amphiphilic diblock copolymer emulsifiers based on methoxy hexa(ethylene glycol) methacrylate and benzyl methacrylate. Polymer, 2004, 45, 3681-3692.	3.8	20
86	Binding of Sodium Dodecyl Sulfate to Linear and Star Homopolymers of the Nonionic Poly(methoxyhexa(ethylene glycol) methacrylate) and the Polycation Poly(2-(dimethylamino)ethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	3.5	20
	Small-Angle Neutron Scattering Measurements. Langmuir, 2004, 20, 6458-6469.		
87	Direct laser writing of microoptical structures using a Ge-containing hybrid material. Metamaterials, 2011, 5, 135-140.	2.2	20
88	Synthesis of Amphiphilic (ABC) <sub>n</sub> Multiarm Star Triblock Terpolymers. Macromolecules, 2005, 38, 1021-1024.	4.8	17
89	Adsorption characteristics of zwitterionic diblock copolymers at the silica/aqueous solution interface. Journal of Colloid and Interface Science, 2008, 317, 383-394.	9.4	17
90	Multi-photon polymerization of bio-inspired, thymol-functionalized hybrid materials with biocompatible and antimicrobial activity. Polymer Chemistry, 2020, 11, 4078-4083.	3.9	17

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91	Copper-Catalyzed Bimolecular Coupling of $\epsilon$ -Dibromide-Functionalized Poly( $\epsilon$ -caprolactone). <i>Macromolecules</i> , 2010, 43, 3228-3232.	4.8	16
92	Controlled structure copolymers for the dispersion of high-performance ceramics in aqueous media. <i>Journal of Materials Chemistry</i> , 2001, 11, 2437-2444.	6.7	15
93	Synthesis, Nanomechanical Characterization and Biocompatibility of a Chitosan-Graft-Poly( $\epsilon$ -caprolactone) Copolymer for Soft Tissue Regeneration. <i>Materials</i> , 2019, 12, 150.	2.9	14
94	Effect of Graphene Nanoplatelets on the Structure, the Morphology, and the Dielectric Behavior of Low-Density Polyethylene Nanocomposites. <i>Materials</i> , 2020, 13, 4776.	2.9	13
95	Shear driven vorticity aligned flocs in a suspension of attractive rigid rods. <i>Soft Matter</i> , 2021, 17, 1232-1245.	2.7	13
96	Wharton's Jelly Mesenchymal Stem Cell Response on Chitosan-graft-poly ( $\epsilon$ -caprolactone) Copolymer for Myocardium Tissue Engineering. <i>Current Pharmaceutical Design</i> , 2014, 20, 2030-2039.	1.9	13
97	From Fluidic Self-Assembly to Hierarchical Structures" Superhydrophobic Flexible Interfaces. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4542-4543.	13.8	12
98	Quantum dot based 3D printed woodpile photonic crystals tuned for the visible. <i>Nanoscale Advances</i> , 2019, 1, 3413-3423.	4.6	12
99	Well-defined copolymers synthesized by RAFT polymerization as effective modifiers to enhance the photocatalytic performance of TiO <sub>2</sub> . <i>Applied Surface Science</i> , 2017, 399, 106-113.	6.1	11
100	Controlling pre-osteoblastic cell adhesion and spreading on glycopolymer brushes of variable film thickness. <i>Journal of Materials Science: Materials in Medicine</i> , 2018, 29, 98.	3.6	10
101	rGO Functionalized ZnO@TiO <sub>2</sub> Core-Shell Flower-Like Architectures for Visible Light Photocatalysis. <i>Catalysts</i> , 2021, 11, 332.	3.5	10
102	Poly(2-ethyl-2-oxazoline) grafted gellan gum for potential application in transmucosal drug delivery. <i>Polymers for Advanced Technologies</i> , 2021, 32, 2770-2780.	3.2	10
103	Synthesis of metallic nanoparticles within pH-sensitive polymeric matrices. <i>International Journal of Nanotechnology</i> , 2009, 6, 46.	0.2	9
104	Photoreponsive Hybrid Nanoparticles with Inherent FRET Activity. <i>Langmuir</i> , 2016, 32, 5981-5989.	3.5	9
105	pH-responsive polyampholytic hybrid Janus nanoparticles. <i>Polymer</i> , 2017, 130, 50-60.	3.8	9
106	Photo- and Acid-Degradable Polyacylhydrazone@Doxorubicin Conjugates. <i>Polymers</i> , 2021, 13, 2461.	4.5	9
107	Characterization of hydrophilic networks synthesized by group transfer polymerization. <i>Macromolecular Symposia</i> , 2001, 171, 209-224.	0.7	8
108	3D Photonic Nanostructures via Diffusion-Assisted Direct fs Laser Writing. <i>Advances in OptoElectronics</i> , 2012, 2012, 1-6.	0.6	7

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109	Nanoporous polystyreneâ€“porphyrin nanoparticles for selective gas separation. Polymer Chemistry, 2016, 7, 3026-3033.	3.9	7
110	Responsive Polyesters with Alkene and Carboxylic Acid Side-Groups for Tissue Engineering Applications. Polymers, 2021, 13, 1636.	4.5	7
111	Synthesis, characterization and modeling of ABC triblock terpolymers: the effect of block sequence. Macromolecular Symposia, 2002, 183, 133-138.	0.7	5
112	Hollow polymer microrods of tunable flexibility from dense amphiphilic block copolymer brushes. Soft Matter, 2020, 16, 833-841.	2.7	4
113	Reversible chemocapacitor system based on PDMAEMA polymers for fast sensing of VOCs mixtures. Microelectronic Engineering, 2020, 227, 111304.	2.4	4
114	High-resolution 3D woodpile structures by direct fs laser writing. Proceedings of SPIE, 2012, , .	0.8	2
115	Metallic Nanocatalysts Embedded within p<sc>H</sc>â€“Responsive Polymeric Microgels and Deposition onto Solid Substrates. Macromolecular Symposia, 2013, 331-332, 17-25.	0.7	1
116	Photoâ€“C</sc>ontrolled Synthesis of Responsive Polymer Capsules from Hybrid Coreâ€“S</sc>hell Nanoparticles. Macromolecular Symposia, 2013, 331-332, 129-136.	0.7	1
117	Exploring the potential of Multiphoton Laser Ablation Lithography (MP-LAL) as a reliable technique for sub-50nm patterning. Proceedings of SPIE, 2016, , .	0.8	1
118	Ultra-sensitive EUV resists based on acid-catalyzed polymer backbone breaking. , 2018, , .		1
119	Laser fabrication of nonlinear and metallic photonic nanostructures. , 2009, , .		0
120	Three-dimensional direct writing of novel sol-gel composites for photonics applications. International Journal of Nanomanufacturing, 2010, 6, 164.	0.3	0
121	Fabrication of three-dimensional conducting nanostructures by nonlinear lithography. , 2011, , .		0
122	Direct laser writing of microoptical structures using a germanium-containing hybrid photopolymer. , 2011, , .		0
123	3D active photonic nanostructures. , 2011, , .		0
124	Direct laser writing of gain and metallic nanostructures. , 2011, , .		0
125	Fabry-Perot vapor microsensor onto fibre endface fabricated by multiphoton polymerization technique. , 2013, , .		0
126	Fabry-Perot Vapor Microsensors Fabricated onto Fibre Endface by Multiphoton Polymerization Technique. MATEC Web of Conferences, 2013, 8, 05006.	0.2	0



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127	Direct fs Laser Writing of 3D Nanostructures. Nano-optics and Nanophotonics, 2015, , 137-154.	0.2	0
128	Quantum dot based 3D photonic devices. , 2017, , .		0
129	Versatile nanografting pathway to functionally embellished fluorogenic small-molecule on two-dimensional inorganic surfaces. Surfaces and Interfaces, 2021, 23, 100949.	3.0	0
130	Polysaccharides and Applications in Regenerative Medicine. , 2021, , 1-33.		0