Jae-Hak Choi

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Active Digital Microfluidic Paper Chips with Inkjetâ€Printed Patterned Electrodes. Advanced Materials, 2014, 26, 2335-2340.	11.1	128
2	Fabrication and characterization of inkjet-printed carbon nanotube electrode patterns on paper. Carbon, 2013, 58, 116-127.	5.4	98
3	Preparation and characterization of a PVDF-HFP/PEGDMA-coated PE separator for lithium-ion polymer battery by electron beam irradiation. Radiation Physics and Chemistry, 2009, 78, 505-508.	1.4	43
4	Signal Enhancement of Silicon Nanowire-Based Biosensor for Detection of Matrix Metalloproteinase-2 Using DNA-Au Nanoparticle Complexes. ACS Applied Materials & Interfaces, 2013, 5, 12023-12028.	4.0	43
5	Preparation of flexible PLA/PEG-POSS nanocomposites by melt blending and radiation crosslinking. Radiation Physics and Chemistry, 2014, 102, 23-28.	1.4	43
6	<i>In Situ</i> Patterning of High-Quality Crystalline Rubrene Thin Films for High-Resolution Patterned Organic Field-Effect Transistors. ACS Nano, 2011, 5, 8352-8356.	7.3	41
7	Preparation of a new micro-porous poly(methyl methacrylate)-grafted polyethylene separator for high performance Li secondary battery. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3309-3313.	0.6	39
8	Battery performance of PMMA-grafted PE separators prepared by pre-irradiation grafting technique. Journal of Industrial and Engineering Chemistry, 2009, 15, 748-751.	2.9	39
9	Polyacrylonitrile-grafted reduced graphene oxide hybrid: An all-round and efficient hole-extraction material for organic and inorganic-organic hybrid photovoltaics. Nano Energy, 2017, 31, 19-27.	8.2	39
10	Preparation and biocompatibility study of gelatin/kappa-carrageenan scaffolds. Macromolecular Research, 2010, 18, 29-34.	1.0	37
11	Preparation of conductive carbon films from polyacrylonitrile/graphene oxide composite films by thermal treatment. Journal of Industrial and Engineering Chemistry, 2018, 58, 87-91.	2.9	34
12	Radiation grafting of methyl methacrylate onto polyethylene separators for lithium secondary batteries. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3387-3391.	0.6	31
13	High-performance polymer solar cells with radiation-induced and reduction-controllable reduced graphene oxide as an advanced hole transporting material. Carbon, 2014, 79, 321-329.	5.4	29
14	Rapid, facile, and eco-friendly reduction of graphene oxide by electron beam irradiation in an alcohol–water solution. Materials Letters, 2014, 126, 151-153.	1.3	28
15	Eco-friendly fabrication of porous carbon monoliths from water-soluble carboxymethyl cellulose for supercapacitor applications. Journal of Industrial and Engineering Chemistry, 2020, 82, 367-373.	2.9	27
16	Photobleachable silicon-containing molecular resist for deep UV lithography. Journal of Materials Chemistry, 2006, 16, 3448.	6.7	26
17	Isolation and characterization of nanocrystalline cellulose from different precursor materials. Fibers and Polymers, 2017, 18, 272-277.	1.1	26
18	Highly ordered and robust honeycomb films with tunable pore sizes fabricated via UV crosslinking after applying improved phase separation. Polymer, 2015, 74, 46-53.	1.8	25

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19	Simple micropatterning of biomolecules on a diazoketo-functionalized photoresist. Journal of Materials Chemistry, 2008, 18, 703.	6.7	24
20	Preparation of polymer/POSS nanocomposites by radiation processing. Radiation Physics and Chemistry, 2009, 78, 517-520.	1.4	24
21	Fabrication and characterization of radiation-resistant LDPE/MWCNT nanocomposites. Journal of Nuclear Materials, 2013, 438, 41-45.	1.3	24
22	Preparation of polymer-coated separators using an electron beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4994-5000.	0.6	23
23	Photothermal Fabrics for Efficient Oil-Spill Remediation via Solar-Driven Evaporation Combined with Adsorption. ACS Applied Materials & amp; Interfaces, 2021, 13, 13106-13113.	4.0	23
24	Radiation-induced grafting of inorganic particles onto polymer backbone: A new method to design polymer-based nanocomposite. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 203-206.	0.6	22
25	A simple PAN-based fabrication method for microstructured carbon electrodes for organic field-effect transistors. Carbon, 2015, 87, 257-268.	5.4	22
26	Efficient Immobilization and Patterning of Biomolecules on Poly(ethylene terephthalate) Films Functionalized by Ion Irradiation for Biosensor Applications. ACS Applied Materials & Interfaces, 2011, 3, 2235-2239.	4.0	21
27	Surface Morphology Control of Polymer Films by Electron Irradiation and Its Application to Superhydrophobic Surfaces. ACS Applied Materials & amp; Interfaces, 2011, 3, 2988-2993.	4.0	21
28	Photoacoustic effect on the electrical and mechanical properties of polymer-infiltrated carbon nanotube fiber/graphene oxide composites. Composites Science and Technology, 2017, 153, 136-144.	3.8	21
29	Fabrication and electrochemical characterization of polyimideâ€derived carbon nanofibers for selfâ€standing supercapacitor electrode materials. Journal of Applied Polymer Science, 2019, 136, 47846.	1.3	21
30	Surface modification of multi-walled carbon nanotubes by radiation-induced graft polymerization. Current Applied Physics, 2009, 9, S85-S87.	1.1	20
31	Electron beam-induced crosslinking of poly(butylene adipate-co-terephthalate). Nuclear Instruments & Methods in Physics Research B, 2010, 268, 3386-3389.	0.6	20
32	Surface modification of Nafion membranes by ion implantation to reduce methanol crossover in direct methanol fuel cells. RSC Advances, 2016, 6, 62467-62470.	1.7	19
33	Patterned immobilization of biomolecules by using ion irradiationâ€induced graft polymerization. Journal of Polymer Science Part A, 2009, 47, 6124-6134.	2.5	18
34	Poly(acrylic acid)-Grafted Fluoropolymer Films for Highly Sensitive Fluorescent Bioassays. ACS Applied Materials & Interfaces, 2013, 5, 2155-2160.	4.0	18
35	Shortening of multi-walled carbon nanotubes by γ-irradiation in the presence of hydrogen peroxide. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3491-3494.	0.6	16
36	Fabrication and electric heating behavior of carbon thin films from water-soluble poly(vinyl alcohol) via simple dry and ambient stabilization and carbonization. Applied Surface Science, 2018, 456, 561-567.	3.1	16

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37	Surface-attached brush-type CO2-philic poly(PEGMA)/PSf composite membranes by UV/ozone-induced graft polymerization: Fabrication, characterization, and gas separation properties. Journal of Membrane Science, 2019, 589, 117214.	4.1	16
38	Preparation of sulfonated crosslinked poly(2,6â€dimethylâ€1,4â€phenylene oxide) membranes for direct methanol fuel cells by using electron beam irradiation. Journal of Polymer Science Part A, 2010, 48, 2725-2731.	2.5	15
39	Fabrication of porous carbon beads from polyacrylonitrile as electrode materials for electric double-layer capacitors. Carbon Letters, 2021, 31, 67-74.	3.3	15
40	Preparation of polystyrene-grafted poly(vinylidene fluoride) membranes for lithium secondary batteries. Journal of Industrial and Engineering Chemistry, 2008, 14, 116-119.	2.9	14
41	Direct patterning of poly(acrylic acid) on polymer surfaces by ion beam lithography for the controlled adhesion of mammalian cells. Biotechnology Letters, 2014, 36, 2135-2142.	1.1	14
42	Data from crosslinked PS honeycomb thin film by deep UV irradiation. Data in Brief, 2015, 5, 990-994.	0.5	14
43	Oriented layered assemblies of graphene nanosheets/Fe3O4 nanoparticles as a superior anode material for lithium ion batteries. Applied Surface Science, 2020, 508, 144416.	3.1	14
44	Eco-friendly and simple radiation-based preparation of graphene and its application to organic solar cells. Journal Physics D: Applied Physics, 2014, 47, 015105.	1.3	13
45	Cellulose non-woven fabric-derived porous carbon films as binder-free electrodes for supercapacitors. Cellulose, 2019, 26, 4529.	2.4	13
46	Free-Standing Janus Graphene Oxide with Anisotropic Properties for 2D Materials as Surfactant. ACS Applied Nano Materials, 2019, 2, 4203-4210.	2.4	13
47	Electrothermal application of novolac-derived carbon micropatterns prepared by proton beam lithography and carbonization. Applied Surface Science, 2019, 471, 328-334.	3.1	13
48	Oriented wrinkle textures of free-standing graphene nanosheets: application as a high-performance lithium-ion battery anode. Carbon Letters, 2021, 31, 277-285.	3.3	13
49	Synthesis of poly(2-trimethylsilyl-2-propyl methacrylate) and their application as a dry-developable chemically amplified photoresist. Polymer, 1999, 40, 1617-1621.	1.8	12
50	Patterning of biomolecules on a poly(É›-caprolactone) film surface functionalized by ion implantation. Colloids and Surfaces B: Biointerfaces, 2009, 74, 375-379.	2.5	11
51	Simple and Biocompatible Micropatterning of Multiple Cell Types on a Polymer Substrate by Using Ion Implantation. Langmuir, 2010, 26, 18437-18441.	1.6	11
52	Photosensitive polymer brushes grafted onto PTFE film surface for micropatterning of proteins. Journal of Materials Chemistry, 2010, 20, 2007.	6.7	11
53	Preparation of sulfonated reduced graphene oxide by radiation-induced chemical reduction of sulfonated graphene oxide. Carbon Letters, 2015, 16, 41-44.	3.3	11
54	Environmentally Friendly Negative Resists Based on Acid-Catalyzed Acetalization for 193-nm Lithography. Macromolecular Rapid Communications, 2003, 24, 879-882.	2.0	10

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55	Simple Patterning of Cells on a Biocompatible Nonchemically Amplified Resist. Macromolecular Rapid Communications, 2006, 27, 1442-1445.	2.0	10
56	Patterned grafting of acrylic acid onto polymer substrates. Polymers for Advanced Technologies, 2009, 20, 173-177.	1.6	10
57	The effects of energetic ion irradiation on metal-to-polymer adhesion. Radiation Physics and Chemistry, 2012, 81, 919-922.	1.4	10
58	Preparation and characterization of crosslinked poly(butylene adipate-co-terephthalate)/polyhedral oligomeric silsesquioxane nanocomposite by electron beam irradiation. Radiation Physics and Chemistry, 2013, 82, 100-105.	1.4	10
59	Preparation of porous carbon films from polyacrylonitrile by proton irradiation and carbonization. Radiation Physics and Chemistry, 2017, 141, 369-374.	1.4	10
60	Fabrication of hexagonally arranged porous carbon films by proton beam irradiation and carbonization. Radiation Physics and Chemistry, 2019, 163, 18-21.	1.4	10
61	Li-incorporated porous carbon monoliths derived from carboxymethyl cellulose as anode material for high power lithium-ion batteries. Journal of Power Sources, 2021, 506, 230050.	4.0	10
62	Preparation and Electrochemical Characterization of Si@C Nanoparticles as an Anode Material for Lithium-Ion Batteries via Solvent-Assisted Wet Coating Process. Nanomaterials, 2022, 12, 1649.	1.9	10
63	High Performance Molecular Resists Based on β-Cyclodextrin. Polymer Journal, 2006, 38, 996-998.	1.3	9
64	Preparation of Ethyl-Cellulose Nanofibers via An Electrospinning. Solid State Phenomena, 2007, 119, 255-258.	0.3	9
65	Patterning of cells on a PVC film surface functionalized by ion irradiation. Polymers for Advanced Technologies, 2010, 21, 135-138.	1.6	9
66	Preparation of Thin Porous Carbon Membranes from Polyacrylonitrile by Phase Separation and Heat Treatment. Journal of Nanoscience and Nanotechnology, 2017, 17, 5822-5825.	0.9	9
67	Synthesis and lithographic evaluation of poly[(methacrylic acid tert-butyl cholate) Tj ETQq1 1 0.784314 rgBT /	Overlock 10 1.8) Tf 50 262 T
68	Electrically stimulable indium tin oxide plate for long-term in vitro cardiomyocyte culture. Biomaterials Research, 2020, 24, 10.	3.2	8
69	Preparation and electrochemical characterization of porous carbon pearls from carboxymethyl cellulose for electrical double-layer capacitors. Korean Journal of Chemical Engineering, 2022, 39, 1232-1239.	1.2	8
70	Acid diffusion control in chemically amplified resists. Polymer, 1999, 40, 1087-1089.	1.8	7
71	Preparation of Polypropylene Compatibilizer by Radiation Grafting and Its Effect on PP/Nylon 6 Blend. Macromolecular Symposia, 2007, 249-250, 573-579.	0.4	7
72	Actuation of Digital Micro Drops by Electrowetting on Open Microfluidic Chips Fabricated in Photolithography. Journal of Nanoscience and Nanotechnology, 2014, 14, 5894-5897.	0.9	7

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73	Facile construction of electrically-conductive carbon patterns from a cheap coal-type pitch and their application to electric heating devices. Journal of Industrial and Engineering Chemistry, 2016, 39, 188-193.	2.9	7
74	Preparation and electrical-property characterization of poly(vinyl chloride)-derived carbon nanosheet by ion beam irradiation-induced carbon clustering and carbonization. Applied Surface Science, 2018, 439, 968-975.	3.1	7
75	Biocompatibility Improvement of Polytetrafluoroethylene by Ion Implantation. Journal of the Korean Physical Society, 2008, 52, 819-823.	0.3	7
76	Adhesion Enhancement of Norbornene Polymers with Lithocholate Substituents for 193-nm Resists. Polymer Journal, 2004, 36, 18-22.	1.3	6
77	Facile fabrication of polyacrylonitrileâ€derived porous carbon beads via electron beam irradiation as anode materials for Liâ€ion batteries. International Journal of Energy Research, 2021, 45, 9530-9540.	2.2	6
78	Effect of the ionic conductivity of a polymer matrix on the electrooptical properties of polymer-dispersed liquid crystal films. Polymer Bulletin, 1998, 41, 37-43.	1.7	5
79	Micropatterning of proteins on ion beamâ€induced poly(acrylic acid)â€grafted polyethylene film. Polymers for Advanced Technologies, 2011, 22, 1989-1992.	1.6	5
80	Preparation and characterization of crosslinked poly(Îμ-caprolactone)/polyhedral oligomeric silsesquioxane nanocomposites by electron beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2012, 287, 141-147.	0.6	5
81	Local pH-Responsive Diazoketo-Functionalized Photoresist for Multicomponent Protein Patterning. ACS Applied Materials & Interfaces, 2013, 5, 10253-10259.	4.0	5
82	Simple and Biocompatible Ion Beam Micropatterning of a Cell-Repellent Polymer on Cell-Adhesive Surfaces to Manipulate Cell Adhesion. Journal of Biomedical Nanotechnology, 2016, 12, 387-393.	0.5	5
83	Preparation of Conductive Carbon Films from Poly(vinyl alcohol) by Chemical Pre-Treatment and Pyrolysis. Journal of Nanoscience and Nanotechnology, 2017, 17, 5481-5484.	0.9	5
84	Surface Functionalization of Poly(Ethylene Terephthalate) for Biomolecule Immobilization by Ion Implantation. Journal of the Korean Physical Society, 2009, 54, 2071-2075.	0.3	5
85	Functionalization of Carbon Nanotubes by Radiation-Induced Graft Polymerization. Journal of Nanoscience and Nanotechnology, 2009, 9, 7126-9.	0.9	4
86	Cell patterning on a poly(N-vinyl pyrrolidone)-patterned polystyrene substrate by using ion implantation. Journal of Industrial and Engineering Chemistry, 2010, 16, 87-90.	2.9	4
87	Micropatterning of Mammalian Cells on Indium Tin Oxide Substrates Using Ion Implantation. Journal of Biomedical Nanotechnology, 2013, 9, 819-824.	0.5	4
88	Simple and non-toxic fabrication of poly(vinyl alcohol)-patterned polymer surface for the formation of cell patterns. Applied Surface Science, 2014, 316, 179-186.	3.1	4
89	Effect of Cross-Linking Density of Silicone Encapsulant on Sulfur Compound Gas Permeability of Light-Emitting Diode. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 163-167.	1.4	4
90	Transparent Electric Heaters Based on Photoresistâ€Derived Carbon Micropatterns on Quartz Plates. Macromolecular Materials and Engineering, 2018, 303, 1800296.	1.7	4

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91	Electric heating performance of carbon thin films prepared from SU-8 photoresist by deep UV exposure and carbonization. Carbon Letters, 2020, 30, 595-601.	3.3	4
92	Preparation of Polyacrylonitrile/Graphene Oxide Nanocomposite-Derived Carbon Microstructures by Ion Beam Patterning and Post-Pyrolysis. Science of Advanced Materials, 2016, 8, 1714-1718.	0.1	4
93	Preparation and cesium adsorption behavior of Prussian blue-based polypropylene nonwoven fabric by surfactant-assisted aqueous preirradiation graft polymerization. Radiation Physics and Chemistry, 2022, 199, 110356.	1.4	4
94	POSS-Containing Nanocomposite Materials for Next Generation Nanolithography. Solid State Phenomena, 2007, 119, 299-302.	0.3	3
95	Selective cell adhesion on an ion implanted poly(bisphenol A carbonate) film. Journal of Industrial and Engineering Chemistry, 2009, 15, 703-706.	2.9	3
96	Micropatterning of Poly(vinyl pyrrolidone)/Silver Nanoparticle Thin Films by Ion Irradiation. Journal of Nanoscience and Nanotechnology, 2009, 9, 7090-3.	0.9	3
97	Patterning of Polymer Nanocomposite Resists Containing Metal Nanoparticles by Electron Beam Lithography. Journal of Nanoscience and Nanotechnology, 2011, 11, 7390-7393.	0.9	3
98	Electron beam irradiation effects on green biodegradable poly(ϵ-caprolactone) films. Journal of Adhesion Science and Technology, 2013, 27, 1374-1381.	1.4	3
99	Electron Beam-Induced Modification of Poly(dimethyl siloxane). Porrime, 2011, 35, 157-160.	0.0	3
100	Poly(isobornyl methacrylate-co-3-(t-butoxycarbonyl)-1-vinyl-2-caprolactam) for an Environmentally Stable Chemically Amplified Resist. Polymer Journal, 1999, 31, 695-699.	1.3	2
101	Fabrication of Silicon Nanowire for Detecting <l>l²</l> -Amyloid (1-42) by Nanoimprint Lithography. Journal of Nanoscience and Nanotechnology, 2011, 11, 4517-4521.	0.9	2
102	Reversibility of Electrowetting on Hydrophobic Surfaces and Dielectrics Under Continuous Applied DC Voltage. Journal of Nanoscience and Nanotechnology, 2011, 11, 7132-7136.	0.9	2
103	Patterned Immobilization of Biomolecules on a Polymer Surface Functionalized by Radiation Grafting. Journal of Nanoscience and Nanotechnology, 2011, 11, 4562-4566.	0.9	2
104	Cell patterning on poly(sodium 4-styrenesulfonate)-patterned fluoropolymer substrate. Nuclear Instruments & Methods in Physics Research B, 2013, 313, 54-59.	0.6	2
105	Microfluidic Chips: Active Digital Microfluidic Paper Chips with Inkjetâ€Printed Patterned Electrodes (Adv. Mater. 15/2014). Advanced Materials, 2014, 26, 2286-2286.	11.1	2
106	Thermal Properties of Poly(lactic acid) Films Containing a Multi-Functional Monomer Cross-Linked by Electron Beam Irradiation. Journal of Biobased Materials and Bioenergy, 2014, 8, 130-136.	0.1	2
107	Cell Patterning on Polystyrene by Ion Implantatio. Journal of the Korean Physical Society, 2008, 52, 884-887.	0.3	2
108	A Study on Characterization of Polyethylene Separators Irradiated at various Electron Beam Current Conditions. Porrime, 2010, 34, 74-78.	0.0	2

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109	Polymer-dispersed liquid crystal films using poly(2-methyloxycarbonyl-bicyclo[2.2.1] hepta-2,5-diene- co) Tj ETQq1	1.9.78431	L4 rgBT /O
110	Control of photogenerated acid diffusion and evaporation by copolymerization with a basic monomer. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 2097.	1.6	1
111	Determination of three characteristic regimes of weakly charged polyelectrolytes monolayers. Ultramicroscopy, 2008, 108, 1191-1195.	0.8	1
112	Cell patterning on a glass surface by a mask-assisted ion implantation. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1089-1092.	0.6	1
113	Micropatterning of Polymer-Embedded Metal Nanoparticles by an Ion Beam Contact Lithography. Journal of Nanoscience and Nanotechnology, 2010, 10, 6879-6882.	0.9	1
114	Micropatterning of Cells on Electron-Irradiated Poly(dimethylsiloxane) Surface. Journal of Biomedical Nanotechnology, 2013, 9, 461-466.	0.5	1
115	Fabrication of Wettability-Patterned Surface for Cellular Micropatterning Using Step-Wise Ion Beam Processing. Journal of Nanoscience and Nanotechnology, 2019, 19, 4647-4650.	0.9	1
116	Preparation of Patterned Polymer Brushes by Radiation-Induced Grafting. Journal of the Korean Physical Society, 2008, 52, 880-883.	0.3	1
117	Electrowetting Technique for Measuring the Thickness of Spin-Coated Hydrophobic Fluoropolymer Films. Science of Advanced Materials, 2015, 7, 869-873.	0.1	1
118	Ion beam fabrication of an antifouling Pluronic F-108 thin film-based microwell bioplatform for highly resolved cell microarrays. Applied Surface Science, 2022, 573, 151551.	3.1	1
119	Graft Polymerization of Styrene onto Alumina Nanoparticles by a Radiation. Solid State Phenomena, 2007, 119, 259-262.	0.3	0
120	Radiation Effect on Poly(Î μ -Caprolactone) Nanofibrous Scaffold. Solid State Phenomena, 2007, 119, 95-98.	0.3	0
121	Preparation and Characterization of Polypyrrole-Coated Silicon Nanoparticles. Solid State Phenomena, 2007, 119, 295-298.	0.3	0
122	Patterning of TiO ₂ Particles on Poly(dimethyl siloxane) Films by Using Proton Irradiation and Liquid-Phase Deposition Process. Journal of Nanoscience and Nanotechnology, 2012, 12, 4284-4288.	0.9	0
123	Patterning of Gold Nanoparticles on Fluoropolymer Films by Using Patterned Surface Grafting and Layer-by-Layer Deposition Techniques. ACS Applied Materials & Interfaces, 2013, 5, 8546-8552.	4.0	ο
124	The Fabrication of Patterned Gold Nanoparticle Arrays via Selective Ion Irradiation and Plasma Treatment. Journal of Nanoscience and Nanotechnology, 2014, 14, 6158-6161.	0.9	0
125	A Stydy on the Immobilization of Biomolecules on Poly(acrylic acid)-grafted MWCNTs Prepared by Radiation-Induced Graft Polymerization. Porrime, 2010, 34, 150-153.	0.0	0