

Chan-Hee Jung

List of Publications by Year in descending order

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87
papers

1,077
citations

430874

18
h-index

501196

28
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89
all docs

89
docs citations

89
times ranked

1760
citing authors

#	ARTICLE	IF	CITATIONS
1	Active Digital Microfluidic Paper Chips with Inkjet-Printed Patterned Electrodes. <i>Advanced Materials</i> , 2014, 26, 2335-2340.	21.0	128
2	Fabrication and characterization of inkjet-printed carbon nanotube electrode patterns on paper. <i>Carbon</i> , 2013, 58, 116-127.	10.3	98
3	Preparation of flexible PLA/PEG-POSS nanocomposites by melt blending and radiation crosslinking. <i>Radiation Physics and Chemistry</i> , 2014, 102, 23-28.	2.8	43
4	Polyacrylonitrile-grafted reduced graphene oxide hybrid: An all-round and efficient hole-extraction material for organic and inorganic-organic hybrid photovoltaics. <i>Nano Energy</i> , 2017, 31, 19-27.	16.0	39
5	Preparation of conductive carbon films from polyacrylonitrile/graphene oxide composite films by thermal treatment. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 58, 87-91.	5.8	34
6	High-performance polymer solar cells with radiation-induced and reduction-controllable reduced graphene oxide as an advanced hole transporting material. <i>Carbon</i> , 2014, 79, 321-329.	10.3	29
7	Rapid, facile, and eco-friendly reduction of graphene oxide by electron beam irradiation in an alcohol-water solution. <i>Materials Letters</i> , 2014, 126, 151-153.	2.6	28
8	Electron-beam-induced reduced graphene oxide as an alternative hole-transporting interfacial layer for high-performance and reliable polymer solar cells. <i>Organic Electronics</i> , 2016, 34, 67-74.	2.6	28
9	Preparation of polymer/POSS nanocomposites by radiation processing. <i>Radiation Physics and Chemistry</i> , 2009, 78, 517-520.	2.8	24
10	Fabrication and characterization of radiation-resistant LDPE/MWCNT nanocomposites. <i>Journal of Nuclear Materials</i> , 2013, 438, 41-45.	2.7	24
11	Radiation-induced grafting of inorganic particles onto polymer backbone: A new method to design polymer-based nanocomposite. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 203-206.	1.4	22
12	A simple PAN-based fabrication method for microstructured carbon electrodes for organic field-effect transistors. <i>Carbon</i> , 2015, 87, 257-268.	10.3	22
13	Efficient Immobilization and Patterning of Biomolecules on Poly(ethylene terephthalate) Films Functionalized by Ion Irradiation for Biosensor Applications. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 2235-2239.	8.0	21
14	Surface Morphology Control of Polymer Films by Electron Irradiation and Its Application to Superhydrophobic Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 2988-2993.	8.0	21
15	Surface modification of multi-walled carbon nanotubes by radiation-induced graft polymerization. <i>Current Applied Physics</i> , 2009, 9, S85-S87.	2.4	20
16	Electron beam-induced crosslinking of poly(butylene adipate-co-terephthalate). <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 3386-3389.	1.4	20
17	Surface modification of Nafion membranes by ion implantation to reduce methanol crossover in direct methanol fuel cells. <i>RSC Advances</i> , 2016, 6, 62467-62470.	3.6	19
18	Patterned immobilization of biomolecules by using ion irradiation-induced graft polymerization. <i>Journal of Polymer Science Part A</i> , 2009, 47, 6124-6134.	2.3	18

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19	Poly(acrylic acid)-Grafted Fluoropolymer Films for Highly Sensitive Fluorescent Bioassays. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 2155-2160.	8.0	18
20	Morphological, optical, and electrical investigations of solution-processed reduced graphene oxide and its application to transparent electrodes in organic solar cells. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 21, 877-883.	5.8	17
21	Shortening of multi-walled carbon nanotubes by γ -irradiation in the presence of hydrogen peroxide. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 3491-3494.	1.4	16
22	Fabrication and electric heating behavior of carbon thin films from water-soluble poly(vinyl alcohol) via simple dry and ambient stabilization and carbonization. <i>Applied Surface Science</i> , 2018, 456, 561-567.	6.1	16
23	Preparation of sulfonated crosslinked poly(2,6-dimethyl-1,4-phenylene oxide) membranes for direct methanol fuel cells by using electron beam irradiation. <i>Journal of Polymer Science Part A</i> , 2010, 48, 2725-2731.	2.3	15
24	Preparation of polystyrene-grafted poly(vinylidene fluoride) membranes for lithium secondary batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2008, 14, 116-119.	5.8	14
25	Direct patterning of poly(acrylic acid) on polymer surfaces by ion beam lithography for the controlled adhesion of mammalian cells. <i>Biotechnology Letters</i> , 2014, 36, 2135-2142.	2.2	14
26	Fabrication of large Pt nanoparticles-decorated rGO counter electrode for highly efficient DSSCs. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 65, 318-324.	5.8	14
27	Efficient polymer solar cells with a solution-processed gold chloride as an anode interfacial modifier. <i>Applied Physics Letters</i> , 2013, 102, 163302.	3.3	13
28	Eco-friendly and simple radiation-based preparation of graphene and its application to organic solar cells. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 015105.	2.8	13
29	Efficient modification of transparent graphene electrodes by electron beam irradiation for organic solar cells. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 26, 210-213.	5.8	13
30	Patterning of biomolecules on a poly(ϵ -caprolactone) film surface functionalized by ion implantation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 74, 375-379.	5.0	11
31	Simple and Biocompatible Micropatterning of Multiple Cell Types on a Polymer Substrate by Using Ion Implantation. <i>Langmuir</i> , 2010, 26, 18437-18441.	3.5	11
32	Photosensitive polymer brushes grafted onto PTFE film surface for micropatterning of proteins. <i>Journal of Materials Chemistry</i> , 2010, 20, 2007.	6.7	11
33	Preparation of sulfonated reduced graphene oxide by radiation-induced chemical reduction of sulfonated graphene oxide. <i>Carbon Letters</i> , 2015, 16, 41-44.	5.9	11
34	Patterned grafting of acrylic acid onto polymer substrates. <i>Polymers for Advanced Technologies</i> , 2009, 20, 173-177.	3.2	10
35	The effects of energetic ion irradiation on metal-to-polymer adhesion. <i>Radiation Physics and Chemistry</i> , 2012, 81, 919-922.	2.8	10
36	Preparation and characterization of crosslinked poly(butylene adipate-co-terephthalate)/polyhedral oligomeric silsesquioxane nanocomposite by electron beam irradiation. <i>Radiation Physics and Chemistry</i> , 2013, 82, 100-105.	2.8	10

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37	Preparation of porous carbon films from polyacrylonitrile by proton irradiation and carbonization. <i>Radiation Physics and Chemistry</i> , 2017, 141, 369-374.	2.8	10
38	Structural design considerations of solution-processable graphenes as interfacial materials <i>via</i> a controllable synthesis method for the achievement of highly efficient, stable, and printable planar perovskite solar cells. <i>Nanoscale</i> , 2019, 11, 890-900.	5.6	10
39	Highly-dispersible reduced graphene oxide/polymer nanocomposites as efficient hole-transporting materials for perovskite solar cells. <i>Composites Science and Technology</i> , 2021, 201, 108548.	7.8	10
40	Patterning of cells on a PVC film surface functionalized by ion irradiation. <i>Polymers for Advanced Technologies</i> , 2010, 21, 135-138.	3.2	9
41	Preparation of Thin Porous Carbon Membranes from Polyacrylonitrile by Phase Separation and Heat Treatment. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 5822-5825.	0.9	9
42	Electrically stimuable indium tin oxide plate for long-term in vitro cardiomyocyte culture. <i>Biomaterials Research</i> , 2020, 24, 10.	6.9	8
43	Preparation of Polypropylene Compatibilizer by Radiation Grafting and Its Effect on PP/Nylon 6 Blend. <i>Macromolecular Symposia</i> , 2007, 249-250, 573-579.	0.7	7
44	Actuation of Digital Micro Drops by Electrowetting on Open Microfluidic Chips Fabricated in Photolithography. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 5894-5897.	0.9	7
45	Facile construction of electrically-conductive carbon patterns from a cheap coal-type pitch and their application to electric heating devices. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 39, 188-193.	5.8	7
46	Preparation and electrical-property characterization of poly(vinyl chloride)-derived carbon nanosheet by ion beam irradiation-induced carbon clustering and carbonization. <i>Applied Surface Science</i> , 2018, 439, 968-975.	6.1	7
47	Biocompatibility Improvement of Polytetrafluoroethylene by Ion Implantation. <i>Journal of the Korean Physical Society</i> , 2008, 52, 819-823.	0.7	7
48	Preparation and characterization of solution-processible polymer-grafted reduced graphene oxide by a radiation technology. <i>Radiation Physics and Chemistry</i> , 2020, 166, 108504.	2.8	6
49	Performance improvement of poly(acrylic acid) binder-based silicon/graphite composite anodes by room temperature electron beam irradiation-induced crosslinking. <i>Radiation Physics and Chemistry</i> , 2022, 196, 110107.	2.8	6
50	Micropatterning of proteins on ion beam-induced poly(acrylic acid)-grafted polyethylene film. <i>Polymers for Advanced Technologies</i> , 2011, 22, 1989-1992.	3.2	5
51	Preparation and characterization of crosslinked poly(μ -caprolactone)/polyhedral oligomeric silsesquioxane nanocomposites by electron beam irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 287, 141-147.	1.4	5
52	Experimental study on physical properties of nanoporous anodic aluminum oxide by proton implantation. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 3219-3222.	1.5	5
53	Simple and Biocompatible Ion Beam Micropatterning of a Cell-Repellent Polymer on Cell-Adhesive Surfaces to Manipulate Cell Adhesion. <i>Journal of Biomedical Nanotechnology</i> , 2016, 12, 387-393.	1.1	5
54	Preparation of Conductive Carbon Films from Poly(vinyl alcohol) by Chemical Pre-Treatment and Pyrolysis. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 5481-5484.	0.9	5

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55	Electron beam-based fabrication of crosslinked hydrophilic carbon electrodes and their application for capacitive deionization. RSC Advances, 2019, 9, 9684-9691.	3.6	5
56	Surface Functionalization of Poly(Ethylene Terephthalate) for Biomolecule Immobilization by Ion Implantation. Journal of the Korean Physical Society, 2009, 54, 2071-2075.	0.7	5
57	Functionalization of Carbon Nanotubes by Radiation-Induced Graft Polymerization. Journal of Nanoscience and Nanotechnology, 2009, 9, 7126-9.	0.9	4
58	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.	5.8	4
59	Micropatterning of Mammalian Cells on Indium Tin Oxide Substrates Using Ion Implantation. Journal of Biomedical Nanotechnology, 2013, 9, 819-824.	1.1	4
60	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.	6.1	4
61	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.	2.5	4
62	Surface Enhanced Raman Scattering by Gold Nanoparticle-Decorated Reduced Graphene Oxide on ITO-Coated Glass. Science of Advanced Materials, 2014, 6, 2566-2571.	0.7	4
63	Preparation of Polyacrylonitrile/Graphene Oxide Nanocomposite-Derived Carbon Microstructures by Ion Beam Patterning and Post-Pyrolysis. Science of Advanced Materials, 2016, 8, 1714-1718.	0.7	4
64	Selective cell adhesion on an ion implanted poly(bisphenol A carbonate) film. Journal of Industrial and Engineering Chemistry, 2009, 15, 703-706.	5.8	3
65	Micropatterning of Poly(vinyl pyrrolidone)/Silver Nanoparticle Thin Films by Ion Irradiation. Journal of Nanoscience and Nanotechnology, 2009, 9, 7090-3.	0.9	3
66	Patterning of Polymer Nanocomposite Resists Containing Metal Nanoparticles by Electron Beam Lithography. Journal of Nanoscience and Nanotechnology, 2011, 11, 7390-7393.	0.9	3
67	Electron beam irradiation effects on green biodegradable poly(ϵ -caprolactone) films. Journal of Adhesion Science and Technology, 2013, 27, 1374-1381.	2.6	3
68	Synthesis of a Graphene-Like Nanofilm from Polyacrylonitrile. Journal of Nanoscience and Nanotechnology, 2017, 17, 2503-2507.	0.9	3
69	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
70	Patterned Immobilization of Biomolecules on a Polymer Surface Functionalized by Radiation Grafting. Journal of Nanoscience and Nanotechnology, 2011, 11, 4562-4566.	0.9	2
71	Cell patterning on poly(sodium 4-styrenesulfonate)-patterned fluoropolymer substrate. Nuclear Instruments & Methods in Physics Research B, 2013, 313, 54-59.	1.4	2
72	Microfluidic Chips: Active Digital Microfluidic Paper Chips with Inkjet-Printed Patterned Electrodes (Adv. Mater. 15 2014). Advanced Materials, 2014, 26, 2286-2286.	21.0	2

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73	Conductive carbon nanosheets prepared from brominated polystyrene through ion beam irradiation and carbonization. <i>Radiation Physics and Chemistry</i> , 2019, 159, 6-11.	2.8	2
74	Cell Patterning on Polystyrene by Ion Implantatio. <i>Journal of the Korean Physical Society</i> , 2008, 52, 884-887.	0.7	2
75	Cell patterning on a glass surface by a mask-assisted ion implantation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1089-1092.	1.4	1
76	Micropatterning of Polymer-Embedded Metal Nanoparticles by an Ion Beam Contact Lithography. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 6879-6882.	0.9	1
77	Micropatterning of Cells on Electron-Irradiated Poly(dimethylsiloxane) Surface. <i>Journal of Biomedical Nanotechnology</i> , 2013, 9, 461-466.	1.1	1
78	Analysis of Thickness of a Hydrophobic Fluoropolymer Film Based on Electrowetting. <i>Journal of Biomedical Nanotechnology</i> , 2013, 9, 1250-1253.	1.1	1
79	Fabrication of Wettability-Patterned Surface for Cellular Micropatterning Using Step-Wise Ion Beam Processing. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 4647-4650.	0.9	1
80	Simple and Mass-Producible Radiolytic Reduction of Graphene Oxide Suspensions in <i>N,N</i> '-Dimethylformamide. <i>Science of Advanced Materials</i> , 2017, 9, 157-160.	0.7	1
81	Preparation of Patterned Polymer Brushes by Radiation-Induced Grafting. <i>Journal of the Korean Physical Society</i> , 2008, 52, 880-883.	0.7	1
82	Electrowetting Technique for Measuring the Thickness of Spin-Coated Hydrophobic Fluoropolymer Films. <i>Science of Advanced Materials</i> , 2015, 7, 869-873.	0.7	1
83	Ion beam fabrication of an antifouling Pluronic F-108 thin film-based microwell bioplatfrom for highly resolved cell microarrays. <i>Applied Surface Science</i> , 2022, 573, 151551.	6.1	1
84	Patterning of TiO ₂ Particles on Poly(dimethyl siloxane) Films by Using Proton Irradiation and Liquid-Phase Deposition Process. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 4284-4288.	0.9	0
85	Patterning of Gold Nanoparticles on Fluoropolymer Films by Using Patterned Surface Grafting and Layer-by-Layer Deposition Techniques. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 8546-8552.	8.0	0
86	The Fabrication of Patterned Gold Nanoparticle Arrays via Selective Ion Irradiation and Plasma Treatment. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 6158-6161.	0.9	0
87	Effects of Radiation on PS-b-PMMA Block Copolymer Micelles. <i>Porrime</i> , 2016, 40, 622.	0.2	0