Joonwon Bae

List of Publications by Year in descending order

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65 papers	1,975 citations	257429 24 h-index	254170 43 g-index
66 all docs	66 docs citations	66 times ranked	2966 citing authors

#	Article	IF	Citations
1	Fabrication and characterization of polyaniline coated carbon nanofiber for supercapacitor. Carbon, 2005, 43, 2730-2736.	10.3	200
2	High-Performance Flexible Graphene Aptasensor for Mercury Detection in Mussels. ACS Nano, 2013, 7, 10563-10571.	14.6	184
3	Cure Behavior of the Liquid-Crystalline Epoxy/Carbon Nanotube System and the Effect of Surface Treatment of Carbon Fillers on Cure Reaction. Macromolecular Chemistry and Physics, 2002, 203, 2196-2204.	2.2	132
4	An Ultrasensitive, Selective, Multiplexed Superbioelectronic Nose That Mimics the Human Sense of Smell. Nano Letters, 2015, 15, 6559-6567.	9.1	129
5	A study on the effect of surface treatment of carbon nanotubes for liquid crystalline epoxideâ€“carbon nanotube composites. Journal of Materials Chemistry, 2003, 13, 676-681.	6.7	111
6	Largeâ€Scale Graphene Micropattern Nanoâ€biohybrids: Highâ€Performance Transducers for FETâ€Type Flexible Fluidic HIV Immunoassays. Advanced Materials, 2013, 25, 4177-4185.	21.0	97
7	Fabrication of Polymer Nanofibers and Carbon Nanofibers by Using a Salt-Assisted Microemulsion Polymerization. Angewandte Chemie - International Edition, 2004, 43, 3803-3806.	13.8	67
8	Wearable Cortisol Aptasensor for Simple and Rapid Real-Time Monitoring. ACS Sensors, 2022, 7, 99-108.	7.8	59
9	Carboxylic Acid-Functionalized Conducting-Polymer Nanotubes as Highly Sensitive Nerve-Agent Chemiresistors. Scientific Reports, 2016, 6, 33724.	3.3	55
10	Binary FeCo Oxyhydroxide Nanosheets as Highly Efficient Bifunctional Electrocatalysts for Overall Water Splitting. Chemistry - A European Journal, 2018, 24, 4724-4728.	3.3	54
11	Tailored hydrogels for biosensor applications. Journal of Industrial and Engineering Chemistry, 2020, 89, 1-12.	5.8	54
12	Toward Microcapsule-Embedded Self-Healing Membranes. Environmental Science and Technology Letters, 2016, 3, 216-221.	8.7	47
13	Fluorescent polydopamine nanoparticles as a probe for zebrafish sensory hair cells targeted in vivo imaging. Scientific Reports, 2018, 8, 4393.	3.3	41
14	Effect of Nanoparticles on the Electrohydrodynamic Instabilities of Polymer/Nanoparticle Thin Films. Macromolecules, 2008, 41, 2722-2726.	4.8	38
15	A recyclable, recoverable, and reformable hydrogel-based smart photocatalyst. Environmental Science: Nano, 2017, 4, 955-966.	4.3	38
16	Energy efficient capacitors based on graphene/conducting polymer hybrids. Journal of Industrial and Engineering Chemistry, 2017, 51, 1-11.	5.8	34
17	Development of Multi-Functional Graphene Polymer Composites Having Electromagnetic Interference Shielding and De-Icing Properties. Polymers, 2019, 11, 2101.	4.5	33
18	Phase-separation prevention and performance improvement of poly(vinyl acetate)/TEOS hybrid using modified sol-gel process. Journal of Applied Polymer Science, 2001, 82, 2310-2318.	2.6	31

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19	High-Performance Conducting Polymer Nanotube-based Liquid-Ion Gated Field-Effect Transistor Aptasensor for Dopamine Exocytosis. Scientific Reports, 2020, 10, 3772.	3.3	29
20	In-situ food spoilage monitoring using a wireless chemical receptor-conjugated graphene electronic nose. Biosensors and Bioelectronics, 2022, 200, 113908.	10.1	27
21	High-performance ZnS@graphite composites prepared through scalable high-energy ball milling as novel anodes in lithium-ion batteries. Journal of Industrial and Engineering Chemistry, 2019, 76, 258-267.	5.8	26
22	A Review of Fabrication Methods and Applications of Novel Tailored Microcapsules. Current Organic Chemistry, 2013, 17, 3-13.	1.6	25
23	Dopamine Receptor D1 Agonism and Antagonism Using a Field-Effect Transistor Assay. ACS Nano, 2017, 11, 5950-5959.	14.6	25
24	Incorporation of hydrogel as a sensing medium for recycle of sensing material in chemical sensors. Applied Surface Science, 2018, 429, 258-263.	6.1	25
25	Synthesis and curing of poly(glycidyl methacrylate) nanoparticles. Journal of Polymer Science Part A, 2005, 43, 2258-2265.	2.3	24
26	A new polymeric binder for silicon-carbon nanotube composites in lithium ion battery. Macromolecular Research, 2013, 21, 826-831.	2.4	24
27	A succinct review of refined chemical sensor systems based on conducting polymerâ€“cyclodextrin hybrids. Journal of Industrial and Engineering Chemistry, 2019, 79, 19-28.	5.8	22
28	Study on the Sensing Signal Profiles for Determination of Process Window of Flexible Sensors Based on Surface Treated PDMS/CNT Composite Patches. Polymers, 2018, 10, 951.	4.5	21
29	Ultrasensitive Stress Biomarker Detection Using Polypyrrole Nanotube Coupled to a Field-Effect Transistor. Micromachines, 2020, 11, 439.	2.9	21
30	Copperâ€“antimonyâ€“red phosphorus composites as promising anode materials for sodium-ion batteries. Journal of Power Sources, 2017, 362, 115-122.	7.8	21
31	Fabrication of carbon microcapsules containing silicon nanoparticles for anode in lithium ion battery. Colloid and Polymer Science, 2011, 289, 1233-1241.	2.1	19
32	Effect of Randomly Networked Carbon Nanotubes in Silicon-Based Anodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2009, 156, A905.	2.9	18
33	Surface engineered poly(dimethylsiloxane)/carbon nanotube nanocomposite pad as a flexible platform for chemical sensors. Composites Part A: Applied Science and Manufacturing, 2018, 107, 55-60.	7.6	17
34	Tailoring environment friendly carbon nanostructures by surfactant mediated interfacial engineering. Journal of Industrial and Engineering Chemistry, 2015, 30, 1-9.	5.8	15
35	Polymer Composite Containing Carbon Nanotubes and their Applications. Recent Patents on Nanotechnology, 2017, 11, 109-115.	1.3	15
36	Selective Fabrication of Polymer Nanocapsules and Nanotubes Using Cyclodextrin as a Nanoporogen. Macromolecular Rapid Communications, 2005, 26, 1320-1324.	3.9	14

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37	Role of silane coupling agents for performance improvement of poly(vinyl acetate)/tetraethyl orthosilicate hybrid composites prepared by a sol-gel process. Polymer International, 2001, 50, 1247-1251.	3.1	13
38	Enhancement of adhesion between inorganic nanoparticles and polymeric matrix in nanocomposite by introducing polymeric thin film onto nanoparticles. Polymer Engineering and Science, 2015, 55, 1906-1911.	3.1	11
39	Elaborate Chemical Sensors Based on Graphene/Conducting Polymer Hybrids. Current Organic Chemistry, 2015, 19, 1117-1133.	1.6	11
40	Synthesis and characterization of In1â^'Ga P@ZnS alloy core-shell type colloidal quantum dots. Journal of Industrial and Engineering Chemistry, 2020, 88, 106-110.	5.8	10
41	A unique embossed carbon layer from induced domain alignment in a block copolymer thin film under an electric field. Chemical Communications, 2013, 49, 5456.	4.1	9
42	The effect of nanoparticle on microdomain alignment in block copolymer thin films under an electric field. Journal of Materials Science, 2014, 49, 4323-4331.	3.7	9
43	Effect of nanoparticle surface functionality on microdomain orientation in block copolymer thin films under electric field. Polymer, 2014, 55, 2014-2020.	3.8	9
44	Enhanced adhesion properties of conductive super-hydrophobic surfaces by using zirco-aluminate coupling agent. Journal of Industrial and Engineering Chemistry, 2018, 68, 387-392.	5.8	8
45	Effect of a Surfactant in Microcapsule Synthesis on Self-Healing Behavior of Capsule Embedded Polymeric Films. Polymers, 2018, 10, 675.	4.5	8
46	A Dual Functional Conductive Hydrogel Containing Titania@Polypyrrole-Cyclodextrin Hybrid Nanotubes for Capture and Degradation of Toxic Chemical. Biochip Journal, 2021, 15, 162-170.	4.9	8
47	Development of the Functionalized Nanocomposite Materials for Adsorption/Decontamination of Radioactive Pollutants. Materials, 2021, 14, 2896.	2.9	8
48	Thiolâ€ene/clay nanocomposite thin film as novel transparent barrier. Polymer International, 2012, 61, 895-900.	3.1	7
49	Electrohydrodynamic instabilities of polymer thin films: Filler effect. Journal of Industrial and Engineering Chemistry, 2012, 18, 378-383.	5.8	7
50	Fabrication of photo-crosslinkable polymer/silica solâ€“gel hybrid thin films as versatile barrier films. Journal of Industrial and Engineering Chemistry, 2016, 38, 61-66.	5.8	7
51	Versatile chemical sensors using oligosaccharides on cleanable PDMS/graphene hybrids for monitoring environmentally hazardous substances. Applied Surface Science, 2020, 507, 145139.	6.1	7
52	Flexible Chemical Sensors Using Signal Generation from Cyclodextrin-Analyte Interactions on Polymer Composites. Biochip Journal, 2020, 14, 251-257.	4.9	6
53	An elaborate sensor system based on conducting polymer-oligosaccharides in hydrogel and the formation of inclusion complexes. Journal of Industrial and Engineering Chemistry, 2020, 90, 266-273.	5.8	5
54	Synthesis and Characterization of Thermo-Reversible Conductive Hydrogel Toward Smart Electrodes. Science of Advanced Materials, 2016, 8, 176-179.	0.7	5

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55	In situ, real-time, colorimetric detection of Î³-hydroxybutyric acid (GHB) using self-protection products coated with chemical receptor-embedded hydrogel. Biosensors and Bioelectronics, 2022, 207, 114195.	10.1	5
56	Effect of morphology of polyaniline nanomaterials on cure kinetics and properties of liquid crystalline epoxy nanocomposite. Journal of Applied Polymer Science, 2012, 125, 562-570.	2.6	4
57	Study on peculiar carbon pattern formation from polymer blend thin films under electric fields. Thin Solid Films, 2018, 660, 846-851.	1.8	3
58	A study on generation of embossed carbon nanopattern by induced microdomain alignments in PAN-based block copolymer under electric field. Journal of Materials Science, 2018, 53, 9316-9324.	3.7	3
59	High Performance Sensors Using Graphene Based Organic-Inorganic Hybrids. Current Organic Chemistry, 2014, 18, 2415-2429.	1.6	3
60	A study on fabrication of polypyrrole@lignin composite and electrical sensing and metal ion adsorption capabilities. Materials Chemistry and Physics, 2022, 285, 126166.	4.0	3
61	Controlled specific placement of nanoparticles into microdomains of block copolymer thin films. Thin Solid Films, 2014, 562, 338-342.	1.8	2
62	Energy Efficient Graphene Based High Performance Capacitors. Recent Patents on Nanotechnology, 2017, 11, 93-100.	1.3	2
63	Functionalization of Tailored Porous Carbon Monolith for Decontamination of Radioactive Substances. International Journal of Molecular Sciences, 2022, 23, 5116.	4.1	2
64	Nanoporous carbon template from surface reconstruction in block copolymer thin film. Thin Solid Films, 2012, 520, 2351-2355.	1.8	1
65	Fabrication and Applications of Tailored Carbon Capsules. Nanoscience and Nanotechnology - Asia, 2016, 6, 66-79.	0.7	1