Bong Sup Shim

List of Publications by Year
in descending order

59 papers	5,273 citations	172386 29 h-index	175177 52 g-index
60 all docs	60 docs citations	60 times ranked	7747 citing authors

#	Article	IF	Citations
1	Ultrastrong and Stiff Layered Polymer Nanocomposites. Science, 2007, 318, 80-83.	6.0	1,500
2	Smart Electronic Yarns and Wearable Fabrics for Human Biomonitoring made by Carbon Nanotube Coating with Polyelectrolytes. Nano Letters, 2008, 8, 4151-4157.	4.5	496
3	Review of nanocellulose for sustainable future materials. International Journal of Precision Engineering and Manufacturing - Green Technology, 2015, 2, 197-213.	2.7	373
4	Molecularly Engineered Nanocomposites:Â Layer-by-Layer Assembly of Cellulose Nanocrystals. Biomacromolecules, 2005, 6, 2914-2918.	2.6	249
5	Simple, Rapid, Sensitive, and Versatile SWNTâ˜'Paper Sensor for Environmental Toxin Detection Competitive with ELISA. Nano Letters, 2009, 9, 4147-4152.	4.5	249
6	Tailoring Piezoresistive Sensitivity of Multilayer Carbon Nanotube Composite Strain Sensors. Journal of Intelligent Material Systems and Structures, 2008, 19, 747-764.	1.4	155
7	Integration of Conductivity, Transparency, and Mechanical Strength into Highly Homogeneous Layer-by-Layer Composites of Single-Walled Carbon Nanotubes for Optoelectronics. Chemistry of Materials, 2007, 19, 5467-5474.	3.2	154
8	Counterintuitive Effect of Molecular Strength and Role of Molecular Rigidity on Mechanical Properties of Layer-by-Layer Assembled Nanocomposites. Nano Letters, 2007, 7, 1224-1231.	4.5	147
9	Stimulation of Neural Cells by Lateral Currents in Conductive Layer-by-Layer Films of Single-Walled Carbon Nanotubes. Advanced Materials, 2006, 18, 2975-2979.	11.1	145
10	Multiparameter Structural Optimization of Single-Walled Carbon Nanotube Composites: Toward Record Strength, Stiffness, and Toughness. ACS Nano, 2009, 3, 1711-1722.	7.3	141
11	Transparent Conductors from Layer-by-Layer Assembled SWNT Films: Importance of Mechanical Properties and a New Figure of Merit. ACS Nano, 2010, 4, 3725-3734.	7.3	135
12	Nanostructured Thin Films Made by Dewetting Method of Layer-By-Layer Assembly. Nano Letters, 2007, 7, 3266-3273.	4.5	118
13	Can Natureâ€™s Design be Improved Upon? High Strength, Transparent Nacre-Like Nanocomposites with Double Network of Sacrificial Cross Links. Journal of Physical Chemistry B, 2008, 112, 14359-14363.	1.2	101
14	E-Textile Conductors and Polymer Composites for Conformal Lightweight Antennas. IEEE Transactions on Antennas and Propagation, 2010, 58, 2732-2736.	3.1	101
15	Polymer/clay and polymer/carbon nanotube hybrid organicâ€"inorganic multilayered composites made by sequential layering of nanometer scale films. Coordination Chemistry Reviews, 2009, 253, 2835-2851.	9.5	97
16	Graphene: an emerging material for biological tissue engineering. Carbon Letters, 2013, 14, 63-75.	3.3	85
17	Single-Walled Carbon Nanotube Combing during Layer-by-Layer Assembly:Â From Random Adsorption to Aligned Composites. Langmuir, 2005, 21, 9381-9385.	1.6	82
18	Transparent Conductors from Carbon Nanotubes LBL-Assembled with Polymer Dopant with Ï€â˜'Ï€ Electron Transfer. Journal of the American Chemical Society, 2011, 133, 7450-7460.	6.6	82

#	Article	IF	Citations
19	Conductive paper from lignocellulose wood microfibers coated with a nanocomposite of carbon nanotubes and conductive polymers. Nanotechnology, 2009, 20, 215602.	1.3	67
20	Carbon Nanotubes on Polymeric Microcapsules: Freeâ€Standing Structures and Pointâ€Wise Laser Openings. Advanced Functional Materials, 2010, 20, 3136-3142.	7.8	66
21	Electrically conducting polymers for bio-interfacing electronics: From neural and cardiac interfaces to bone and artificial tissue biomaterials. Biosensors and Bioelectronics, 2020, 170, 112620.	5.3	57
22	Nanoengineered Colloidal Probes for Ramanâ€based Detection of Biomolecules inside Living Cells. Small, 2013, 9, 351-356.	5.2	53
23	Biosignal Sensors and Deep Learning-Based Speech Recognition: A Review. Sensors, 2021, 21, 1399.	2.1	50
24	Shape-Programmed Fabrication and Actuation of Magnetically Active Micropost Arrays. ACS Applied Materials & Interfaces, 2020, 12, 17113-17120.	4.0	44
25	Durable soft neural micro-electrode coating by an electrochemical synthesis of PEDOT:PSS / graphene oxide composites. Electrochimica Acta, 2019, 313, 79-90.	2.6	43
26	Impedimetric Biosensors for Detecting Vascular Endothelial Growth Factor (VEGF) Based on Poly(3,4-ethylene dioxythiophene) (PEDOT)/Gold Nanoparticle (Au NP) Composites. Frontiers in Chemistry, 2019, 7, 234.	1.8	41
27	Multilayer composites from vapor-grown carbon nano-fibers. Composites Science and Technology, 2006, 66, 1174-1181.	3.8	39
28	Nanoarchitecturing of Natural Melanin Nanospheres by Layer-by-Layer Assembly: Macroscale Anti-inflammatory Conductive Coatings with Optoelectronic Tunability. Biomacromolecules, 2017, 18, 1908-1917.	2.6	39
29	Optical Heating and Temperature Determination of Coreâ€"Shell Gold Nanoparticles and Singleâ€Walled Carbon Nanotube Microparticles. Small, 2015, 11, 1320-1327.	5.2	31
30	The Effect of Stabilizer Density on Transformation of CdTe Nanoparticles Induced by Ag Cations. Advanced Functional Materials, 2008, 18, 3801-3808.	7.8	28
31	Naturally Derived Melanin Nanoparticle Composites with High Electrical Conductivity and Biodegradability. Particle and Particle Systems Characterization, 2019, 36, 1900166.	1.2	28
32	Synthesis and characterization of bicontinuous cubic poly(3,4-ethylene dioxythiophene) gyroid (PEDOT GYR) gels. Physical Chemistry Chemical Physics, 2015, 17, 5115-5123.	1.3	26
33	Controlled release of doxorubicin from polyethylene glycol functionalized melanin nanoparticles for breast cancer therapy: Part I. Production and drug release performance of the melanin nanoparticles. International Journal of Pharmaceutics, 2019, 570, 118613.	2.6	26
34	Biodegradable PEDOT:PSS/Clay Composites for Multifunctional Greenâ€Electronic Materials. Advanced Sustainable Systems, 2022, 6, 2100056.	2.7	25
35	Single-Walled Carbon Nanotubes Spontaneous Loading into Exponentially Grown LBL Films. Chemistry of Materials, 2009, 21, 4397-4400.	3.2	23
36	High crystallinity of tunicate cellulose nanofibers for high-performance engineering films. Carbohydrate Polymers, 2021, 254, 117470.	5.1	22

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37	Melanin: A Naturally Existing Multifunctional Material. Applied Chemistry for Engineering, 2016, 27, 115-122.	0.2	19
38	A nanostructured cell-free photosynthetic biocomposite via molecularly controlled layer-by-layer assembly. Sensors and Actuators B: Chemical, 2017, 244, 1-10.	4.0	18
39	Soft electronics on asymmetrical porous conducting membranes by molecular layer-by-layer assembly. Sensors and Actuators B: Chemical, 2018, 254, 916-925.	4.0	17
40	Natural Melanin Nanoparticleâ€decorated Screenâ€printed Carbon Electrode: Performance Test for Amperometric Determination of Hexavalent Chromium as Model Trace. Electroanalysis, 2020, 32, 1696-1706.	1.5	17
41	T1-Positive Mn2+-Doped Multi-Stimuli Responsive poly(L-DOPA) Nanoparticles for Photothermal and Photodynamic Combination Cancer Therapy. Biomedicines, 2020, 8, 417.	1.4	15
42	Ecoâ€Degradable and Flexible Solidâ€State Ionic Conductors by Clayâ€Nanoconfined DMSO Composites. Advanced Sustainable Systems, 2020, 4, 1900134.	2.7	10
43	Biological and Electrophysiologic Effects of Poly(3,4-ethylenedioxythiophene) on Regenerating Peripheral Nerve Fibers. Plastic and Reconstructive Surgery, 2013, 132, 374-385.	0.7	9
44	Unveiling water drainage through microporous layer with laser-ablated open furrows in proton exchange membrane fuel cells. Journal of Power Sources, 2021, 491, 229563.	4.0	8
45	Precisely tuned photonic properties of crystalline nanocellulose biocomposite coatings by gradually tailored nanoarchitectures. Carbohydrate Polymers, 2022, 282, 119053.	5.1	8
46	Ionic Liquid/Styrene-Acrylonitrile Copolymer Nanofibers as Chemiresistor for Alcohol Vapours. Bulletin of the Korean Chemical Society, 2012, 33, 2867-2872.	1.0	7
47	Esterification of Cellulose Nanofibers with Valeric Acid and Hexanoic Acid. Macromolecular Research, 2020, 28, 1055-1063.	1.0	5
48	Effect of expanding nanocellulose sponge on nasal mucosal defects in an animal model. International Journal of Energy Production and Management, 2020, 7, 47-52.	1.9	5
49	Highly Conductive Melanin-like Polymer Composites for Nonenzymatic Glucose Biosensors with a Wide Detection Range. ACS Applied Polymer Materials, 2022, 4, 2527-2535.	2.0	5
50	Effect of Polymerization Methods on Peripheral Nerve Regeneration. Plastic and Reconstructive Surgery, 2011, 128, 90-91.	0.7	4
51	Regeneration of Recurrent Laryngeal Nerve using Polycaprolactone (PCL) Nerve Guide Conduit Coated with Conductive Materials. Journal of Korean Thyroid Association, 2015, 8, 88.	0.2	4
52	Decellular biological scaffold polymerized with PEDOT for improving peripheral nerve interface charge transfer. , 2014, 2014, 422-5.		2
53	Record Properties of Layer-by-Layer Assembled Composites. , 2012, , 573-593.		1
54	Tunable synthesis of hierarchical mesoporous silica via porogen-carrying organosilicates. Microporous and Mesoporous Materials, 2017, 239, 409-415.	2.2	1

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55	Integration of electrical conductivity and high strength in a SWNT polymeric nanocomposite. , 2007, , .		0
56	Stretchable conducting materials with multi-scale hierarchical structures for biomedical applications. Proceedings of SPIE, 2014, , .	0.8	0
57	Renewable Materials. , 2017, , 9-45.		0
58	Chemical Sensors. , 2017, , 77-106.		0
59	Layer-by-Layer Assembly of Multifunctional Carbon Nanotube Thin Films. , 0, , 305-319.		0