Bong Sup Shim

List of Publications by Citations

57 papers	4,444 citations	25 h-index	60 g-index
60 ext. papers	4,863 ext. citations	8.3 avg, IF	5.11 L-index

#	Paper	IF	Citations
57	Ultrastrong and stiff layered polymer nanocomposites. *Science*, **2007**, 318, 80-3	33.3	1322
56	Smart electronic yarns and wearable fabrics for human biomonitoring made by carbon nanotube coating with polyelectrolytes. *Nano Letters*, **2008**, 8, 4151-7	11.5	447
55	Review of nanocellulose for sustainable future materials. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2015**, 2, 197-213	3.8	297
54	Molecularly engineered nanocomposites: layer-by-layer assembly of cellulose nanocrystals. *Biomacromolecules*, **2005**, 6, 2914-8	6.9	223
53	Simple, rapid, sensitive, and versatile SWNT-paper sensor for environmental toxin detection competitive with ELISA. *Nano Letters*, **2009**, 9, 4147-52	11.5	222
52	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	9.6	145
51	Counterintuitive effect of molecular strength and role of molecular rigidity on mechanical properties of layer-by-layer assembled nanocomposites. *Nano Letters*, **2007**, 7, 1224-31	11.5	133
50	Multiparameter structural optimization of single-walled carbon nanotube composites: toward record strength, stiffness, and toughness. *ACS Nano*, **2009**, 3, 1711-22	16.7	131
49	Stimulation of Neural Cells by Lateral Currents in Conductive Layer-by-Layer Films of Single-Walled Carbon Nanotubes. *Advanced Materials*, **2006**, 18, 2975-2979	24	130
48	Transparent conductors from layer-by-layer assembled SWNT films: importance of mechanical properties and a new figure of merit. *ACS Nano*, **2010**, 4, 3725-34	16.7	128
47	Tailoring Piezoresistive Sensitivity of Multilayer Carbon Nanotube Composite Strain Sensors. *Journal of Intelligent Material Systems and Structures*, **2008**, 19, 747-764	2.3	121
46	Nanostructured thin films made by dewetting method of layer-by-layer assembly. *Nano Letters*, **2007**, 7, 3266-73	11.5	110
45	Can nature'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, 14359-63	3.4	93
44	Polymer/clay and polymer/carbon nanotube hybrid organic–inorganic multilayered composites made by sequential layering of nanometer scale films. *Coordination Chemistry Reviews*, **2009**, 253, 2835-2851	23.2	87
43	E-Textile Conductors and Polymer Composites for Conformal Lightweight Antennas. *IEEE Transactions on Antennas and Propagation*, **2010**, 58, 2732-2736	4.9	79
42	Single-walled carbon nanotube combing during layer-by-layer assembly: from random adsorption to aligned composites. *Langmuir*, **2005**, 21, 9381-5	4	79
41	Transparent conductors from carbon nanotubes LBL-assembled with polymer dopant with π electron transfer. *Journal of the American Chemical Society*, **2011**, 133, 7450-60	16.4	78

40	Graphene: an emerging material for biological tissue engineering. *Carbon Letters*, **2013**, 14, 63-75	2.3	71
39	Conductive paper from lignocellulose wood microfibers coated with a nanocomposite of carbon nanotubes and conductive polymers. *Nanotechnology*, **2009**, 20, 215602	3.4	60
38	Carbon Nanotubes on Polymeric Microcapsules: Free-Standing Structures and Point-Wise Laser Openings. *Advanced Functional Materials*, **2010**, 20, 3136-3142	15.6	59
37	Nanoengineered colloidal probes for Raman-based detection of biomolecules inside living cells. *Small*, **2013**, 9, 351-6	11	47
36	Multilayer composites from vapor-grown carbon nano-fibers. *Composites Science and Technology*, **2006**, 66, 1174-1181	8.6	33
35	Optical heating and temperature determination of core-shell gold nanoparticles and single-walled carbon nanotube microparticles. *Small*, **2015**, 11, 1320-7	11	29
34	The Effect of Stabilizer Density on Transformation of CdTe Nanoparticles Induced by Ag Cations. *Advanced Functional Materials*, **2008**, 18, 3801-3808	15.6	28
33	Electrically conducting polymers for bio-interfacing electronics: From neural and cardiac interfaces to bone and artificial tissue biomaterials. *Biosensors and Bioelectronics*, **2020**, 170, 112620	11.8	26
32	Synthesis and characterization of bicontinuous cubic poly(3,4-ethylene dioxythiophene) gyroid (PEDOT GYR) gels. *Physical Chemistry Chemical Physics*, **2015**, 17, 5115-23	3.6	25
31	Shape-Programmed Fabrication and Actuation of Magnetically Active Micropost Arrays. *ACS Applied Materials & Interfaces*, **2020**, 12, 17113-17120	9.5	24
30	Nanoarchitecturing of Natural Melanin Nanospheres by Layer-by-Layer Assembly: Macroscale Anti-inflammatory Conductive Coatings with Optoelectronic Tunability. *Biomacromolecules*, **2017**, 18, 1908-1917	6.9	23
29	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	5	23
28	Single-Walled Carbon Nanotubes Spontaneous Loading into Exponentially Grown LBL Films. *Chemistry of Materials*, **2009**, 21, 4397-4400	9.6	21
27	Durable soft neural micro-electrode coating by an electrochemical synthesis of PEDOT:PSS / graphene oxide composites. *Electrochimica Acta*, **2019**, 313, 79-90	6.7	18
26	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	6.5	16
25	Biosignal Sensors and Deep Learning-Based Speech Recognition: A Review. *Sensors*, **2021**, 21,	3.8	15
24	A nanostructured cell-free photosynthetic biocomposite via molecularly controlled layer-by-layer assembly. *Sensors and Actuators B: Chemical*, **2017**, 244, 1-10	8.5	13
23	Soft electronics on asymmetrical porous conducting membranes by molecular layer-by-layer assembly. *Sensors and Actuators B: Chemical*, **2018**, 254, 916-925	8.5	12

22	Melanin: A Naturally Existing Multifunctional Material. *Applied Chemistry for Engineering*, **2016**, 27, 115-122		11
21	Naturally Derived Melanin Nanoparticle Composites with High Electrical Conductivity and Biodegradability. *Particle and Particle Systems Characterization*, **2019**, 36, 1900166	3.1	9
20	Biological and electrophysiologic effects of poly(3,4-ethylenedioxythiophene) on regenerating peripheral nerve fibers. *Plastic and Reconstructive Surgery*, **2013**, 132, 374-385	2.7	7
19	Ionic Liquid/Styrene-Acrylonitrile Copolymer Nanofibers as Chemiresistor for Alcohol Vapours. *Bulletin of the Korean Chemical Society*, **2012**, 33, 2867-2872	1.2	7
18	Biodegradable PEDOT:PSS/Clay Composites for Multifunctional Green-Electronic Materials. *Advanced Sustainable Systems*,2100056	5.9	7
17	Natural Melanin Nanoparticle-decorated Screen-printed Carbon Electrode: Performance Test for Amperometric Determination of Hexavalent Chromium as Model Trace. *Electroanalysis*, **2020**, 32, 1696-1706	3	6
16	T-Positive Mn-Doped Multi-Stimuli Responsive poly(L-DOPA) Nanoparticles for Photothermal and Photodynamic Combination Cancer Therapy. *Biomedicines*, **2020**, 8,	4.8	5
15	High crystallinity of tunicate cellulose nanofibers for high-performance engineering films. *Carbohydrate Polymers*, **2021**, 254, 117470	10.3	5
14	Eco-Degradable and Flexible Solid-State Ionic Conductors by Clay-Nanoconfined DMSO Composites. *Advanced Sustainable Systems*, **2020**, 4, 1900134	5.9	4
13	Effect of Polymerization Methods on Peripheral Nerve Regeneration. *Plastic and Reconstructive Surgery*, **2011**, 128, 90-91	2.7	3
12	Unveiling water drainage through microporous layer with laser-ablated open furrows in proton exchange membrane fuel cells. *Journal of Power Sources*, **2021**, 491, 229563	8.9	3
11	Esterification of Cellulose Nanofibers with Valeric Acid and Hexanoic Acid. *Macromolecular Research*, **2020**, 28, 1055-1063	1.9	2
10	Regeneration of Recurrent Laryngeal Nerve using Polycaprolactone (PCL) Nerve Guide Conduit Coated with Conductive Materials. *Journal of Korean Thyroid Association*, **2015**, 8, 88		2
9	Decellular biological scaffold polymerized with PEDOT for improving peripheral nerve interface charge transfer. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 422-5	0.9	2
8	Effect of expanding nanocellulose sponge on nasal mucosal defects in an animal model. *International Journal of Energy Production and Management*, **2020**, 7, 47-52	5.3	1
7	Tunable synthesis of hierarchical mesoporous silica via porogen-carrying organosilicates. *Microporous and Mesoporous Materials*, **2017**, 239, 409-415	5.3	1
6	Record Properties of Layer-by-Layer Assembled Composites **2012**, 573-593		1
5	Precisely tuned photonic properties of crystalline nanocellulose biocomposite coatings by gradually tailored nanoarchitectures.. *Carbohydrate Polymers*, **2022**, 282, 119053	10.3	0

4	Highly Conductive Melanin-like Polymer Composites for Nonenzymatic Glucose Biosensors with a Wide Detection Range. *ACS Applied Polymer Materials*, **2022**, 4, 2527-2535	4.3	0
3	Renewable Materials **2017**, 9-45		
2	Chemical Sensors **2017**, 77-106		
1	Layer-by-Layer Assembly of Multifunctional Carbon Nanotube Thin Films305-319		