

# Joon-Hyung Byun

## List of Publications by Citations

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73  
papers

4,700  
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37  
h-index

68  
g-index

77  
ext. papers

5,183  
ext. citations

8.1  
avg, IF

5.46  
L-index

#	Paper	IF	Citations
73	An assessment of the science and technology of carbon nanotube-based fibers and composites. <i>Composites Science and Technology</i> , <b>2010</b> , 70, 1-19	8.6	462
72	State of the art of carbon nanotube fibers: opportunities and challenges. <i>Advanced Materials</i> , <b>2012</b> , 24, 1805-33	24	403
71	Carbon Nanotube Fiber Based Stretchable Wire-Shaped Supercapacitors. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1300759	21.8	271
70	Stretchable Wire-Shaped Asymmetric Supercapacitors Based on Pristine and MnO <sub>2</sub> Coated Carbon Nanotube Fibers. <i>ACS Nano</i> , <b>2015</b> , 9, 6088-96	16.7	258
69	Graphene-Based Fibers: A Review. <i>Advanced Materials</i> , <b>2015</b> , 27, 5113-31	24	232
68	Laminated ultrathin chemical vapor deposition graphene films based stretchable and transparent high-rate supercapacitor. <i>ACS Nano</i> , <b>2014</b> , 8, 9437-45	16.7	211
67	A High Performance Stretchable Asymmetric Fiber-Shaped Supercapacitor with a Core-Sheath Helical Structure. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1600976	21.8	204
66	Additive manufacturing of multi-directional preforms for composites: opportunities and challenges. <i>Materials Today</i> , <b>2015</b> , 18, 503-512	21.8	196
65	Omnidirectionally Stretchable High-Performance Supercapacitor Based on Isotropic Buckled Carbon Nanotube Films. <i>ACS Nano</i> , <b>2016</b> , 10, 5204-11	16.7	187
64	Simultaneous enhancement of mechanical, electrical and thermal properties of graphene oxide paper by embedding dopamine. <i>Carbon</i> , <b>2013</b> , 65, 296-304	10.4	152
63	Highly Sensitive Wearable Textile-Based Humidity Sensor Made of High-Strength, Single-Walled Carbon Nanotube/Poly(vinyl alcohol) Filaments. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 4788-4797	9.5	141
62	The analytical characterization of 2-D braided textile composites. <i>Composites Science and Technology</i> , <b>2000</b> , 60, 705-716	8.6	115
61	The effective interfacial shear strength of carbon nanotube fibers in an epoxy matrix characterized by a microdroplet test. <i>Carbon</i> , <b>2012</b> , 50, 1271-1279	10.4	104
60	Highly stretchable multi-walled carbon nanotube/thermoplastic polyurethane composite fibers for ultrasensitive, wearable strain sensors. <i>Nanoscale</i> , <b>2019</b> , 11, 5884-5890	7.7	103
59	Microstructural design and additive manufacturing and characterization of 3D orthogonal short carbon fiber/acrylonitrile-butadiene-styrene preform and composite. <i>Composites Science and Technology</i> , <b>2016</b> , 126, 139-148	8.6	88
58	Carbon Nanotube Fiber Based Stretchable Conductor. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 789-793	15.6	88
57	The effect of concentration of graphene nanoplatelets on mechanical and electrical properties of reduced graphene oxide papers. <i>Carbon</i> , <b>2012</b> , 50, 4573-4578	10.4	77

56	Ultra-high-rate wire-shaped supercapacitor based on graphene fiber. <i>Carbon</i> , <b>2017</b> , 119, 332-338	10.4	68
55	Processing and characterization of multi-scale hybrid composites reinforced with nanoscale carbon reinforcements and carbon fibers. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2011</b> , 42, 337-344	8.4	65
54	Partially reduced graphene oxide as a multi-functional sizing agent for carbon fiber composites by electrophoretic deposition. <i>RSC Advances</i> , <b>2013</b> , 3, 25609	3.7	63
53	Damage characterization of 3D braided composites using carbon nanotube-based in situ sensing. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2010</b> , 41, 1531-1537	8.4	61
52	Damage monitoring in fiber-reinforced composites under fatigue loading using carbon nanotube networks. <i>Philosophical Magazine</i> , <b>2010</b> , 90, 4085-4099	1.6	55
51	Rheological behaviors and mechanical properties of graphite nanoplate/carbon nanotube-filled epoxy nanocomposites. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2010</b> , 16, 572-576	6.3	53
50	The compressive response of new composite truss cores. <i>Composites Part B: Engineering</i> , <b>2012</b> , 43, 317-324	12.4	51
49	Process-microstructure relationships of 2-step and 4-step braided composites. <i>Composites Science and Technology</i> , <b>1996</b> , 56, 235-251	8.6	51
48	Effect of MWCNT content on the mechanical and strain-sensing performance of Thermoplastic Polyurethane composite fibers. <i>Carbon</i> , <b>2019</b> , 146, 701-708	10.4	47
47	Catecholamine polymers as surface modifiers for enhancing interfacial strength of fiber-reinforced composites. <i>Composites Science and Technology</i> , <b>2015</b> , 110, 53-61	8.6	45
46	Salisbury Screen Absorbers of Dielectric Lossy Sheets of Carbon Nanocomposite Laminates. <i>IEEE Transactions on Electromagnetic Compatibility</i> , <b>2012</b> , 54, 37-42	2	43
45	Sensing of damage and healing in three-dimensional braided composites with vascular channels. <i>Composites Science and Technology</i> , <b>2012</b> , 72, 1618-1626	8.6	43
44	Effect of fiber geometry on the elastic constants of the plain woven fabric reinforced aluminum matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2003</b> , 347, 346-358	5.3	43
43	Highly Conductive Graphene/Ag Hybrid Fibers for Flexible Fiber-Type Transistors. <i>Scientific Reports</i> , <b>2015</b> , 5, 16366	4.9	42
42	Analytical Characterization of Two-Step Braided Composites. <i>Journal of Composite Materials</i> , <b>1991</b> , 25, 1599-1618	2.7	42
41	Electrical anisotropy in multiscale nanotube/fiber hybrid composites. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 073111	3.4	41
40	Highly porous and easy shapeable poly-dopamine derived graphene-coated single walled carbon nanotube aerogels for stretchable wire-type supercapacitors. <i>Carbon</i> , <b>2018</b> , 130, 137-144	10.4	40
39	Microstructural characterization of additively manufactured multi-directional preforms and composites via X-ray micro-computed tomography. <i>Composites Science and Technology</i> , <b>2016</b> , 131, 48-60	8.6	39

38	Effects of through-the-thickness stitches on the elastic behavior of multi-axial warp knit fabric composites. <i>Composite Structures</i> , <b>2006</b> , 74, 484-494	5.3	39
37	Electromechanical strain sensing using polycarbonate-impregnated carbon nanotube/graphene nanoplatelet hybrid composite sheets. <i>Composites Science and Technology</i> , <b>2013</b> , 89, 1-9	8.6	38
36	High-Strength Single-Walled Carbon Nanotube/Permalloy Nanoparticle/Poly(vinyl alcohol) Multifunctional Nanocomposite Fiber. <i>ACS Nano</i> , <b>2015</b> , 9, 11414-21	16.7	34
35	Mode I Delamination of a Three-Dimensional Fabric Composite. <i>Journal of Composite Materials</i> , <b>1990</b> , 24, 497-518	2.7	33
34	Impact properties of laminated composites with stitching fibers. <i>Composite Structures</i> , <b>2006</b> , 76, 21-27	5.3	31
33	Effect of phenoxy-based coating resin for reinforcing pitch carbon fibers on the interlaminar shear strength of PA6 composites. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2016</b> , 87, 212-219	8.4	28
32	Spatial strain variation of graphene films for stretchable electrodes. <i>Carbon</i> , <b>2015</b> , 93, 620-624	10.4	27
31	Numerical study on thermo-stamping of woven fabric composites based on double-dome stretch forming. <i>International Journal of Material Forming</i> , <b>2010</b> , 3, 1217-1227	2	26
30	Formicary-like carbon nanotube/copper hybrid nanostructures for carbon fiber-reinforced composites by electrophoretic deposition. <i>Journal of Materials Science</i> , <b>2011</b> , 46, 2359-2364	4.3	22
29	Stress relaxation in carbon nanotube-based fibers for load-bearing applications. <i>Carbon</i> , <b>2013</b> , 52, 347-355	5.4	21
28	The use of Taguchi optimization in determining optimum electrophoretic conditions for the deposition of carbon nanofiber on carbon fibers for use in carbon/epoxy composites. <i>Carbon</i> , <b>2012</b> , 50, 2853-2859	10.4	21
27	Effect of Ni catalyst dispersion on the growth of carbon nanofibers onto carbon fibers. <i>Microporous and Mesoporous Materials</i> , <b>2011</b> , 142, 26-31	5.3	21
26	Analysis and Modeling of Three-Dimensional Textile Structural Composites. <i>ACS Symposium Series</i> , <b>1991</b> , 22-33	0.4	19
25	High conductive free-written thermoplastic polyurethane composite fibers utilized as weight-strain sensors. <i>Composites Science and Technology</i> , <b>2020</b> , 189, 108011	8.6	17
24	Nano structural analysis on stiffening phenomena of PAN-based carbon fibers during tensile deformation. <i>Carbon</i> , <b>2014</b> , 76, 232-239	10.4	17
23	A durability study of carbon nanotube fiber based stretchable electronic devices under cyclic deformation. <i>Carbon</i> , <b>2015</b> , 94, 352-361	10.4	16
22	Mechanical Behavior and Structural Evolution of Carbon Nanotube Films and Fibers Under Tension: A Coarse-Grained Molecular Dynamics Study. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2013</b> , 80,	2.7	13
21	Effects of Graphenes/CNTs Co-reinforcement on Electrical and Mechanical Properties of HDPE Matrix Nanocomposites. <i>Bulletin of the Korean Chemical Society</i> , <b>2010</b> , 31, 2261-2264	1.2	13

20	Sensitivity Improvement of Stretchable Strain Sensors by the Internal and External Structural Designs for Strain Redistribution. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 50803-50811	9.5	11
19	Inherent and interfacial evaluations of carbon nanotubes/epoxy composites and single carbon fiber at different temperatures. <i>Composites Part B: Engineering</i> , <b>2016</b> , 91, 111-118	10	11
18	Mechanics of Textile Composites <b>2000</b> , 719-761		10
17	Mechanism of sonication-assisted electrophoretic deposition of carbon nano-fiber on carbon fabrics. <i>Composites Science and Technology</i> , <b>2015</b> , 107, 29-35	8.6	9
16	Development of high Tg epoxy resin and mechanical properties of its fiber-reinforced composites. <i>Journal of Applied Polymer Science</i> , <b>2013</b> , 127, 4328-4333	2.9	9
15	Fabrication of Carbon Nanotube/Copper Hybrid Nanoplatelets Coated Carbon Fiber Composites by Thermal Vapor and Electrophoretic Depositions. <i>Electrochemical and Solid-State Letters</i> , <b>2011</b> , 14, K37		8
14	Quantitative Accessibility of Delamination in Composite Using Lamb Wave by Experiments and FEA. <i>Advanced Composite Materials</i> , <b>2011</b> , 20, 361-373	2.8	5
13	Similarity Relations of Resin Flow in Resin Transfer Molding Process. <i>Advanced Composite Materials</i> , <b>2009</b> , 18, 135-152	2.8	3
12	Influence of SiC Electron Acceptor/Donor Modification on Thermal and Physical Properties of Carbon Fiber/SiC/Epoxy Composites. <i>Composite Interfaces</i> , <b>2009</b> , 16, 319-328	2.3	2
11	Synthesis and characterization of chemically modified polystyrene as processable carbon fiber precursors. <i>Research on Chemical Intermediates</i> , <b>2010</b> , 36, 621-627	2.8	2
10	APPLICATION OF LASER GENERATED ULTRASOUND FOR EVALUATION OF INTERNAL DEFECTS IN CARBON/PPS COMPOSITES. <i>Modern Physics Letters B</i> , <b>2008</b> , 22, 821-826	1.6	2
9	EXPERIMENTAL NON-CONTACT EVALUATION OF DELAMINATION IN CFRP COMPOSITE PLATES BY LASER GENERATION/AIR-COUPLED DETECTION ULTRASONIC SYSTEM. <i>Modern Physics Letters B</i> , <b>2008</b> , 22, 827-832	1.6	2
8	Studies on Morphologies and Mechanical Properties of Multi-walled Carbon Nanotubes/Epoxy Matrix Composites. <i>Bulletin of the Korean Chemical Society</i> , <b>2010</b> , 31, 1237-1240	1.2	2
7	Influence of Acid and Base Surface Treatment of Multi-Walled Carbon Nanotubes on Mechanical Interfacial Properties of Carbon Fibers-Reinforced Composites. <i>Porrime</i> , <b>2012</b> , 36, 612-616	1	2
6	STUDY OF COMPOSITE PLATE DAMAGES USING EMBEDDED PZT SENSORS WITH VARIOUS CENTER FREQUENCY. <i>International Journal of Modern Physics B</i> , <b>2010</b> , 24, 2398-2403	1.1	1
5	Highly Stretchable and Sensitive Single-Walled Carbon Nanotube-Based Sensor Decorated on a Polyether Ester Urethane Substrate by a Low Hydrothermal Process.. <i>ACS Omega</i> , <b>2021</b> , 6, 34866-34875	3.9	1
4	Tailoring auxetic mechanical metamaterials to achieve patterned wire strain sensors with controllable high sensitivity. <i>Chemical Engineering Journal</i> , <b>2022</b> , 442, 136317	14.7	0
3	Ultrafast, Highly Sensitive, Flexible Textile-Based Humidity Sensors Made of Nanocomposite Filaments. <i>Materials Today Nano</i> , <b>2022</b> , 100214	9.7	0

- 2 Prediction of flow-induced process variables based on similarity analysis in the liquid molding process. *Polymer Composites*, **2003**, 24, 577-586 3
- 1 Effect of KOH Activation on Electrochemical Behaviors of Graphite Nanofibers. *Porrime*, **2012**, 36, 321-325