Joon-Hyung Byun

List of Publications by Year
in descending order

75	5,611	87723 38	88477 70
papers	citations	h-index	g-index

77	77	77	7487
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An assessment of the science and technology of carbon nanotube-based fibers and composites. Composites Science and Technology, 2010, 70, 1-19.	3.8	510
2	State of the Art of Carbon Nanotube Fibers: Opportunities and Challenges. Advanced Materials, 2012, 24, 1805-1833.	11.1	460
3	Carbon Nanotube Fiber Based Stretchable Wireâ€Shaped Supercapacitors. Advanced Energy Materials, 2014, 4, 1300759.	10.2	313
4	Stretchable Wire-Shaped Asymmetric Supercapacitors Based on Pristine and MnO₂ Coated Carbon Nanotube Fibers. ACS Nano, 2015, 9, 6088-6096.	7.3	283
5	Grapheneâ€Based Fibers: A Review. Advanced Materials, 2015, 27, 5113-5131.	11.1	261
6	Additive manufacturing of multi-directional preforms for composites: opportunities and challenges. Materials Today, 2015, 18, 503-512.	8.3	244
7	A High Performance Stretchable Asymmetric Fiberâ€Shaped Supercapacitor with a Coreâ€Sheath Helical Structure. Advanced Energy Materials, 2017, 7, 1600976.	10.2	242
8	Laminated Ultrathin Chemical Vapor Deposition Graphene Films Based Stretchable and Transparent High-Rate Supercapacitor. ACS Nano, 2014, 8, 9437-9445.	7.3	240
9	Omnidirectionally Stretchable High-Performance Supercapacitor Based on Isotropic Buckled Carbon Nanotube Films. ACS Nano, 2016, 10, 5204-5211.	7.3	220
10	Highly Sensitive Wearable Textile-Based Humidity Sensor Made of High-Strength, Single-Walled Carbon Nanotube/Poly(vinyl alcohol) Filaments. ACS Applied Materials & Interfaces, 2017, 9, 4788-4797.	4.0	201
11	Simultaneous enhancement of mechanical, electrical and thermal properties of graphene oxide paper by embedding dopamine. Carbon, 2013, 65, 296-304.	5.4	186
12	Highly stretchable multi-walled carbon nanotube/thermoplastic polyurethane composite fibers for ultrasensitive, wearable strain sensors. Nanoscale, 2019, 11, 5884-5890.	2.8	162
13	The analytical characterization of 2-D braided textile composites. Composites Science and Technology, 2000, 60, 705-716.	3.8	132
14	The effective interfacial shear strength of carbon nanotube fibers in an epoxy matrix characterized by a microdroplet test. Carbon, 2012, 50, 1271-1279.	5.4	119
15	Microstructural design and additive manufacturing and characterization of 3D orthogonal short carbon fiber/acrylonitrile-butadiene-styrene preform and composite. Composites Science and Technology, 2016, 126, 139-148.	3.8	111
16	Carbon Nanotube Fiber Based Stretchable Conductor. Advanced Functional Materials, 2013, 23, 789-793.	7.8	104
17	The effect of concentration of graphene nanoplatelets on mechanical and electrical properties of reduced graphene oxide papers. Carbon, 2012, 50, 4573-4578.	5.4	90
18	Ultrahigh-rate wire-shaped supercapacitor based on graphene fiber. Carbon, 2017, 119, 332-338.	5.4	84

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19	Effect of MWCNT content on the mechanical and strain-sensing performance of Thermoplastic Polyurethane composite fibers. Carbon, 2019, 146, 701-708.	5.4	77
20	Partially reduced graphene oxide as a multi-functional sizing agent for carbon fiber composites by electrophoretic deposition. RSC Advances, 2013, 3, 25609.	1.7	76
21	Processing and characterization of multi-scale hybrid composites reinforced with nanoscale carbon reinforcements and carbon fibers. Composites Part A: Applied Science and Manufacturing, 2011, 42, 337-344.	3.8	74
22	Catecholamine polymers as surface modifiers for enhancing interfacial strength of fiber-reinforced composites. Composites Science and Technology, 2015, 110, 53-61.	3.8	71
23	Damage characterization of 3D braided composites using carbon nanotube-based in situ sensing. Composites Part A: Applied Science and Manufacturing, 2010, 41, 1531-1537.	3.8	68
24	Damage monitoring in fiber-reinforced composites under fatigue loading using carbon nanotube networks. Philosophical Magazine, 2010, 90, 4085-4099.	0.7	66
25	The compressive response of new composite truss cores. Composites Part B: Engineering, 2012, 43, 317-324.	5.9	64
26	Process-microstructure relationships of 2-step and 4-step braided composites. Composites Science and Technology, 1996, 56, 235-251.	3.8	59
27	Rheological behaviors and mechanical properties of graphite nanoplate/carbon nanotube-filled epoxy nanocomposites. Journal of Industrial and Engineering Chemistry, 2010, 16, 572-576.	2.9	59
28	Highly porous and easy shapeable poly-dopamine derived graphene-coated single walled carbon nanotube aerogels for stretchable wire-type supercapacitors. Carbon, 2018, 130, 137-144.	5.4	54
29	Effect of fiber geometry on the elastic constants of the plain woven fabric reinforced aluminum matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 347, 346-358.	2.6	53
30	Highly Conductive Graphene/Ag Hybrid Fibers for Flexible Fiber-Type Transistors. Scientific Reports, 2015, 5, 16366.	1.6	53
31	Salisbury Screen Absorbers of Dielectric Lossy Sheets of Carbon Nanocomposite Laminates. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 37-42.	1.4	49
32	Microstructural characterization of additively manufactured multi-directional preforms and composites via X-ray micro-computed tomography. Composites Science and Technology, 2016, 131, 48-60.	3.8	49
33	Sensing of damage and healing in three-dimensional braided composites with vascular channels. Composites Science and Technology, 2012, 72, 1618-1626.	3.8	48
34	High-Strength Single-Walled Carbon Nanotube/Permalloy Nanoparticle/Poly(vinyl alcohol) Multifunctional Nanocomposite Fiber. ACS Nano, 2015, 9, 11414-11421.	7.3	47
35	Analytical Characterization of Two-Step Braided Composites. Journal of Composite Materials, 1991, 25, 1599-1618.	1.2	46
36	Electromechanical strain sensing using polycarbonate-impregnated carbon nanotubeâ€“graphene nanoplatelet hybrid composite sheets. Composites Science and Technology, 2013, 89, 1-9.	3.8	45

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37	Effects of through-the-thickness stitches on the elastic behavior of multi-axial warp knit fabric composites. Composite Structures, 2006, 74, 484-494.	3.1	41
38	Electrical anisotropy in multiscale nanotube/fiber hybrid composites. Applied Physics Letters, 2009, 95, 073111.	1.5	41
39	Mode I Delamination of a Three-Dimensional Fabric Composite. Journal of Composite Materials, 1990, 24, 497-518.	1.2	40
40	Effect of phenoxy-based coating resin for reinforcing pitch carbon fibers on the interlaminar shear strength of PA6 composites. Composites Part A: Applied Science and Manufacturing, 2016, 87, 212-219.	3.8	37
41	Impact properties of laminated composites with stitching fibers. Composite Structures, 2006, 76, 21-27.	3.1	36
42	Spatial strain variation of graphene films for stretchable electrodes. Carbon, 2015, 93, 620-624.	5.4	32
43	Numerical study on thermo-stamping of woven fabric composites based on double-dome stretch forming. International Journal of Material Forming, 2010, 3, 1217-1227.	0.9	27
44	Stress relaxation in carbon nanotube-based fibers for load-bearing applications. Carbon, 2013, 52, 347-355.	5.4	26
45	Nano structural analysis on stiffening phenomena of PAN-based carbon fibers during tensile deformation. Carbon, 2014, 76, 232-239.	5.4	24
46	Formicary-like carbon nanotube/copper hybrid nanostructures for carbon fiber-reinforced composites by electrophoretic deposition. Journal of Materials Science, 2011, 46, 2359-2364.	1.7	23
47	High conductive free-written thermoplastic polyurethane composite fibers utilized as weight-strain sensors. Composites Science and Technology, 2020, 189, 108011.	3.8	23
48	Effect of Ni catalyst dispersion on the growth of carbon nanofibers onto carbon fibers. Microporous and Mesoporous Materials, 2011, 142, 26-31.	2.2	22
49	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. Carbon, 2012, 50, 2853-2859.	5.4	22
50	Analysis and Modeling of Three-Dimensional Textile Structural Composites. ACS Symposium Series, 1991, , 22-33.	0.5	21
51	Sensitivity Improvement of Stretchable Strain Sensors by the Internal and External Structural Designs for Strain Redistribution. ACS Applied Materials & Interfaces, 2020, 12, 50803-50811.	4.0	21
52	A durability study of carbon nanotube fiber based stretchable electronic devices under cyclic deformation. Carbon, 2015, 94, 352-361.	5.4	17
53	Mechanics of Textile Composites. , 2000, , 719-761.		16
54	Effects of Graphenes/CNTs Co-reinforcement on Electrical and Mechanical Properties of HDPE Matrix Nanocomposites. Bulletin of the Korean Chemical Society, 2010, 31, 2261-2264.	1.0	16

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55	Mechanical Behavior and Structural Evolution of Carbon Nanotube Films and Fibers Under Tension: A Coarse-Grained Molecular Dynamics Study. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	1.1	15
56	Inherent and interfacial evaluations of carbon nanotubes/epoxy composites and single carbon fiber at different temperatures. Composites Part B: Engineering, 2016, 91, 111-118.	5.9	14
57	Tailoring auxetic mechanical metamaterials to achieve patterned wire strain sensors with controllable high sensitivity. Chemical Engineering Journal, 2022, 442, 136317.	6.6	13
58	Development of high T_g epoxy resin and mechanical properties of its fiberâ€reinforced composites. Journal of Applied Polymer Science, 2013, 127, 4328-4333.	1.3	11
59	Mechanism of sonication-assisted electrophoretic deposition of carbon nano-fiber on carbon fabrics. Composites Science and Technology, 2015, 107, 29-35.	3.8	10
60	Ultrafast, highly sensitive, flexible textile-based humidity sensors made of nanocomposite filaments. Materials Today Nano, 2022, 18, 100214.	2.3	9
61	Fabrication of Carbon Nanotube/Copper Hybrid Nanoplatelets Coated Carbon Fiber Composites by Thermal Vapor and Electrophoretic Depositions. Electrochemical and Solid-State Letters, 2011, 14, K37.	2.2	8
62	Quantitative Accessibility of Delamination in Composite Using Lamb Wave by Experiments and FEA. Advanced Composite Materials, 2011, 20, 361-373.	1.0	6
63	Similarity Relations of Resin Flow in Resin Transfer Molding Process. Advanced Composite Materials, 2009, 18, 135-152.	1.0	3
64	Synthesis and characterization of chemically modified polystyrene as processable carbon fiber precursors. Research on Chemical Intermediates, 2010, 36, 621-627.	1.3	3
65	Studies on Morphologies and Mechanical Properties of Multi-walled Carbon Nanotubes/Epoxy Matrix Composites. Bulletin of the Korean Chemical Society, 2010, 31, 1237-1240.	1.0	3
66	APPLICATION OF LASER GENERATED ULTRASOUND FOR EVALUATION OF INTERNAL DEFECTS IN CARBON/PPS COMPOSITES. Modern Physics Letters B, 2008, 22, 821-826.	1.0	2
67	EXPERIMENTAL NON-CONTACT EVALUATION OF DELAMINATION IN CFRP COMPOSITE PLATES BY LASER GENERATION/AIR-COUPLED DETECTION ULTRASONIC SYSTEM. Modern Physics Letters B, 2008, 22, 827-832.	1.0	2
68	Influence of SiC Electron Acceptorâ€“Donor Modification on Thermal and Physical Properties of Carbon Fiber/SiC/Epoxy Composites. Composite Interfaces, 2009, 16, 319-328.	1.3	2
69	Influence of Acid and Base Surface Treatment of Multi-Walled Carbon Nanotubes on Mechanical Interfacial Properties of Carbon Fibers-Reinforced Composites. Porrime, 2012, 36, 612-616.	0.0	2
70	Highly Stretchable and Sensitive Single-Walled Carbon Nanotube-Based Sensor Decorated on a Polyether Ester Urethane Substrate by a Low Hydrothermal Process. ACS Omega, 2021, 6, 34866-34875.	1.6	2
71	STUDY OF COMPOSITE PLATE DAMAGES USING EMBEDDED PZT SENSORS WITH VARIOUS CENTER FREQUENCY. International Journal of Modern Physics B, 2010, 24, 2398-2403.	1.0	1
72	Prediction of flow-induced process variables based on similarity analysis in the liquid molding process. Polymer Composites, 2003, 24, 577-586.	2.3	0

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73	Mussel-inspired catecholamine polymers as new sizing agents for fiber-reinforced composites. Proceedings of SPIE, 2015, , .	0.8	0
74	Effect of KOH Activation on Electrochemical Behaviors of Graphite Nanofibers. Porrime, 2012, 36, 321-325.	0.0	0
75	To investigate the effect of bidirectional dimension changes on the sensitivity of magnetic strain sensors. Chemical Engineering Journal, 2022, 450, 138088.	6.6	0