

Joong Tark Han

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	3,913 citations	31 h-index	60 g-index
112 ext. papers	4,323 ext. citations	8.7 avg, IF	5.26 L-index

#	Paper	IF	Citations
110	A study of the correlation between the oxidation degree and thickness of graphene oxides. <i>Carbon</i> , 2022 , 189, 579-585	10.4	1
109	Ultrasensitive, Transparent, Flexible, and Ecofriendly NO ₂ Gas Sensors Enabled by Oxidized Single-Walled Carbon Nanotube Bundles on Cellulose with Engineered Surface Roughness. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 3227-3235	8.3	2
108	Synthesis of silver nanoparticles embedded with single-walled carbon nanotubes for printable elastic electrodes and sensors with high stability. <i>Scientific Reports</i> , 2021 , 11, 5140	4.9	3
107	Rational electrodeposition of Cu on highly oxidized multiwalled carbon nanotube films. <i>Carbon</i> , 2021 , 174, 723-729	10.4	2
106	Electronic Textiles Based on Highly Conducting Poly(vinyl alcohol)/Carbon Nanotube/Silver Nanobelt Hybrid Fibers. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31051-31058	9.5	7
105	Molecular-Level Contact of Graphene/Silver Nanowires through Simultaneous Dispersion for a Highly Stable Wearable Electrothermal Heater. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100177	6.8	3
104	Minimizing Temperature Gradient in Photonic Sintering for Defect-Free High-Conductivity Cu-Based Printed Patterns by Bidirectional Irradiation. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2100769	4.6	0
103	Fully stretchable self-charging power unit with micro-supercapacitor and triboelectric nanogenerator based on oxidized single-walled carbon nanotube/polymer electrodes. <i>Nano Energy</i> , 2021 , 86, 106083	17.1	17
102	Structural control of highly oxidized carbon nanotube networks for high electrochemical performance. <i>Journal of Industrial and Engineering Chemistry</i> , 2021 , 104, 172-172	6.3	1
101	Extraordinary thermal behavior of graphene oxide in air for electrode applications. <i>Nanoscale Advances</i> , 2021 , 3, 1597-1602	5.1	0
100	Influence of oxyfluorinated graphite on fluorinated ethylene/propylene composites as bipolar plates. <i>Carbon Letters</i> , 2020 , 30, 345-352	2.3	4
99	3D-Printed Sugar Scaffold for High-Precision and Highly Sensitive Active and Passive Wearable Sensors. <i>Advanced Science</i> , 2020 , 7, 1902521	13.6	17
98	Efficient oxidation and rational reduction of long carbon nanotubes for multifunctional superhydrophobic surfaces. <i>Carbon</i> , 2020 , 157, 649-655	10.4	8
97	Tailored and highly efficient oxidation of various-sized graphite by kneading for high-quality graphene nanosheets. <i>Carbon</i> , 2020 , 157, 663-669	10.4	5
96	Highly Exfoliated and Functionalized Single-Walled Carbon Nanotubes as Fast-Charging, High-Capacity Cathodes for Rechargeable Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 1322-1329	9.5	12
95	Graphite block derived from natural graphite with bimodal particle size distribution. <i>SN Applied Sciences</i> , 2020 , 2, 1	1.8	1
94	Organic transistors based on oxidized single-walled carbon nanotube electrodes patterned via simple spray coating. <i>Synthetic Metals</i> , 2020 , 268, 116511	3.6	

93	Improved Charge Transport and Reduced Non-Geminate Recombination in Organic Solar Cells by Adding Size-Selected Graphene Oxide Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 20183-20191	9.5	12
92	Structural Recovery of Highly Oxidized Single-Walled Carbon Nanotubes Fabricated by Kneading and Electrochemical Applications. <i>Chemistry of Materials</i> , 2019 , 31, 3468-3475	9.6	18
91	Multifunctional Smart Textronics with Blow-Spun Nonwoven Fabrics. <i>Advanced Functional Materials</i> , 2019 , 29, 1900025	15.6	41
90	Heavily nitrogen doped chemically exfoliated graphene by flash heating. <i>Carbon</i> , 2019 , 144, 675-683	10.4	8
89	High-performance flexible transparent nanomesh electrodes. <i>Nanotechnology</i> , 2019 , 30, 125301	3.4	10
88	Studying the reduction of graphene oxide with magnetic measurements. <i>Carbon</i> , 2019 , 142, 373-378	10.4	22
87	Controllable Bipolar Doping of Graphene with 2D Molecular Dopants. <i>Small</i> , 2018 , 14, e1703697	11	2
86	Bulk metal-derived metal oxide nanoparticles on oxidized carbon surface. <i>Journal of Alloys and Compounds</i> , 2018 , 752, 198-205	5.7	1
85	Tunable Charge Injection via Solution-Processed Reduced Graphene Oxide Electrode for Vertical Schottky Barrier Transistors. <i>Chemistry of Materials</i> , 2018 , 30, 636-643	9.6	24
84	Fabrication of high-quality or highly porous graphene sheets from exfoliated graphene oxide via reactions in alkaline solutions. <i>Carbon</i> , 2018 , 138, 219-226	10.4	20
83	Chemically Exfoliated Graphene Nanosheets for Flexible Electrode Applications 2018 ,		1
82	Structural optimization of graphite for high-performance fluorinated ethylene/propylene composites as bipolar plates. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21918-21927	6.7	20
81	Enhanced ambipolar charge transport in staggered carbon nanotube field-effect transistors for printed complementary-like circuits. <i>Current Applied Physics</i> , 2017 , 17, 541-547	2.6	6
80	Bioinspired Multifunctional Superhydrophobic Surfaces with Carbon-Nanotube-Based Conducting Pastes by Facile and Scalable Printing. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7780-7786	9.5	35
79	Rapid transformation of transparent conducting films into superhydrophobic conductive films. <i>RSC Advances</i> , 2017 , 7, 17173-17177	3.7	
78	Micropatterning of reduced graphene oxide by meniscus-guided printing. <i>Carbon</i> , 2017 , 123, 364-370	10.4	14
77	Realization of transparent conducting networks with high uniformity by spray deposition on flexible substrates. <i>Thin Solid Films</i> , 2017 , 638, 367-374	2.2	7
76	Synthesis of nanobelt-like 1-dimensional silver/nanocarbon hybrid materials for flexible and wearable electronics. <i>Scientific Reports</i> , 2017 , 7, 4931	4.9	14

75	Multi-functionalized herringbone carbon nanofiber for anodes of lithium ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 18612-18618	3.6	4
74	Fabrication of water-dispersible single-walled carbon nanotube powder using N-methylmorpholine N-oxide. <i>Nanotechnology</i> , 2017 , 28, 465706	3.4	5
73	Ultrafast Heating for Intrinsic Properties of Atomically Thin Two-Dimensional Materials on Plastic Substrates. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31222-31230	9.5	5
72	Stretchable and Multimodal All Graphene Electronic Skin. <i>Advanced Materials</i> , 2016 , 28, 2601-8	24	385
71	Scalable fabrication of micron-scale graphene nanomeshes for high-performance supercapacitor applications. <i>Energy and Environmental Science</i> , 2016 , 9, 1270-1281	35.4	97
70	Sheet Size-Induced Evaporation Behaviors of Inkjet-Printed Graphene Oxide for Printed Electronics. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 3193-9	9.5	24
69	Longitudinal unzipped carbon nanotubes with high specific surface area and trimodal pore structure. <i>RSC Advances</i> , 2016 , 6, 8661-8668	3.7	11
68	Sub-second carbon-nanotube-mediated microwave sintering for high-conductivity silver patterns on plastic substrates. <i>Nanoscale</i> , 2016 , 8, 5343-9	7.7	10
67	Enhanced transparent conducting networks on plastic substrates modified with highly oxidized graphene oxide nanosheets. <i>Nanoscale</i> , 2016 , 8, 6693-9	7.7	3
66	Nanocarbon/silver Nanowire Hybrid Flexible Transparent Conducting Film Technology. <i>Journal of the Korean Institute of Surface Engineering</i> , 2016 , 49, 323-330		
65	Carbon nanotube-induced migration of silver nanowire networks into plastic substrates via Joule heating for high stability. <i>RSC Advances</i> , 2016 , 6, 86395-86400	3.7	4
64	Enhanced response and sensitivity of self-corrugated graphene sensors with anisotropic charge distribution. <i>Scientific Reports</i> , 2015 , 5, 11216	4.9	17
63	Efficient low-temperature transparent electrocatalytic layers based on graphene oxide nanosheets for dye-sensitized solar cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 10863-71	9.5	16
62	Rearrangement of 1D conducting nanomaterials towards highly electrically conducting nanocomposite fibres for electronic textiles. <i>Scientific Reports</i> , 2015 , 5, 9300	4.9	19
61	Sensitive photo-thermal response of graphene oxide for mid-infrared detection. <i>Nanoscale</i> , 2015 , 7, 15695-7004	7.7	40
60	3D printing of reduced graphene oxide nanowires. <i>Advanced Materials</i> , 2015 , 27, 157-61	24	188
59	Chemically doped three-dimensional porous graphene monoliths for high-performance flexible field emitters. <i>Nanoscale</i> , 2015 , 7, 5495-502	7.7	10
58	Retransformed graphitic activated carbon from ionic liquid-derived carbon containing nitrogen. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 2564-2567	13	13

57	Monolithic Graphene Trees as Anode Material for Lithium Ion Batteries with High C-Rates. <i>Small</i> , 2015 , 11, 2774-81	11	18
56	Electrically robust metal nanowire network formation by in-situ interconnection with single-walled carbon nanotubes. <i>Scientific Reports</i> , 2014 , 4, 4804	4.9	55
55	Extremely efficient liquid exfoliation and dispersion of layered materials by unusual acoustic cavitation. <i>Scientific Reports</i> , 2014 , 4, 5133	4.9	78
54	Spine-like nanostructured carbon interconnected by graphene for high-performance supercapacitors. <i>Scientific Reports</i> , 2014 , 4, 6118	4.9	20
53	One-step transfer and integration of multifunctionality in CVD graphene by TiO ₂ /graphene oxide hybrid layer. <i>Small</i> , 2014 , 10, 2057-66	11	14
52	Improved transfer of chemical-vapor-deposited graphene through modification of intermolecular interactions and solubility of poly(methylmethacrylate) layers. <i>Carbon</i> , 2014 , 66, 612-618	10.4	41
51	Highly efficient polymer-based optoelectronic devices using PEDOT:PSS and a GO composite layer as a hole transport layer. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 2067-73	9.5	78
50	Fluorinated activated carbon with superb kinetics for the supercapacitor application in nonaqueous electrolyte. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014 , 443, 535-539	5.1	35
49	Microwave flash annealing for stability of chemically doped single-walled carbon nanotube films on plastic substrates. <i>Nanoscale</i> , 2014 , 6, 2971-7	7.7	6
48	Doping graphene with an atomically thin two dimensional molecular layer. <i>Advanced Materials</i> , 2014 , 26, 8141-6	24	33
47	Graphene: Doping Graphene with an Atomically Thin Two Dimensional Molecular Layer (Adv. Mater. 48/2014). <i>Advanced Materials</i> , 2014 , 26, 8070-8070	24	
46	Dispersant-free conducting pastes for flexible and printed nanocarbon electrodes. <i>Nature Communications</i> , 2013 , 4, 2491	17.4	53
45	Self-organized graphene nanosheets with corrugated, ordered tip structures for high-performance flexible field emission. <i>Small</i> , 2013 , 9, 2182-8	11	16
44	Ribbon-like activated carbon with a multi-structure for supercapacitors. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 14008	13	12
43	Size sorting of chemically modified graphene nanoplatelets. <i>Carbon Letters</i> , 2013 , 14, 89-93	2.3	6
42	Graphene oxide as a multi-functional p-dopant of transparent single-walled carbon nanotube films for optoelectronic devices. <i>Nanoscale</i> , 2012 , 4, 7735-42	7.7	34
41	Arrays of vertically aligned tubular-structured graphene for flexible field emitters. <i>Journal of Materials Chemistry</i> , 2012 , 22, 11277		17
40	Spontaneous reduction and dispersion of graphene nano-platelets with in situ synthesized hydrazine assisted by hexamethyldisilazane. <i>Journal of Materials Chemistry</i> , 2012 , 22, 20477		8

- 39 Highly tunable charge transport in layer-by-layer assembled graphene transistors. *ACS Nano*, **2012**, 6, 2432-40 16.7 77
- 38 Highly efficient polymer light-emitting diodes using graphene oxide-modified flexible single-walled carbon nanotube electrodes. *Journal of Materials Chemistry*, **2012**, 22, 21481 21
- 37 Flexible field emission from thermally welded chemically doped graphene thin films. *Small*, **2012**, 8, 272-80 28
- 36 Highly Concentrated and Conductive Reduced Graphene Oxide Nanosheets by Monovalent Cation-Interaction: Toward Printed Electronics. *Advanced Functional Materials*, **2012**, 22, 3307-3314 15.6 59
- 35 Self-passivation of transparent single-walled carbon nanotube films on plastic substrates by microwave-induced rapid nanowelding. *Applied Physics Letters*, **2012**, 100, 163120 3.4 18
- 34 Transparent carbon nanotube patterns templated by inkjet-printed graphene oxide nanosheets. *RSC Advances*, **2011**, 1, 44 3.7 14
- 33 Enhanced electrical properties of reduced graphene oxide multilayer films by in-situ insertion of a TiO₂ layer. *ACS Nano*, **2011**, 5, 8884-91 16.7 49
- 32 Titania-assisted dispersion of carboxylated single-walled carbon nanotubes in a ZnO sol for transparent conducting hybrid films. *ACS Applied Materials & Interfaces*, **2011**, 3, 2671-6 9.5 10
- 31 All-Carbon Nanotube-Based Flexible Field-Emission Devices: From Cathode to Anode. *Advanced Functional Materials*, **2011**, 21, 1526-1532 15.6 73
- 30 High-performance transparent conductive films using rheologically derived reduced graphene oxide. *ACS Nano*, **2011**, 5, 870-8 16.7 78
- 29 Chemical Strain-Relaxation of Single-Walled Carbon Nanotubes on Plastic Substrates for Enhanced Conductivity. *Journal of Physical Chemistry C*, **2011**, 115, 22251-22256 3.8 6
- 28 Modulating conductivity, environmental stability of transparent conducting nanotube films on flexible substrates by interfacial engineering. *ACS Nano*, **2010**, 4, 4551-8 16.7 26
- 27 Enhanced Electrical Properties of Transparent Carbon Nanotube/Binder Hybrid Thin Films: Effects of the Silane Sol and the Bundle Size of the Carbon Nanotubes. *Industrial & Engineering Chemistry Research*, **2010**, 49, 6416-6421 3.9 4
- 26 Robust superhydrophobic mats based on electrospun crystalline nanofibers combined with a silane precursor. *ACS Applied Materials & Interfaces*, **2010**, 2, 658-62 9.5 64
- 25 Chemical and geometrical criteria for the release of elastomeric 1D nanoarrays from porous nanotemplates. *Langmuir*, **2010**, 26, 3252-6 4 10
- 24 Nanocarbon-induced rapid transformation of polymer surfaces into superhydrophobic surfaces. *ACS Applied Materials & Interfaces*, **2010**, 2, 3378-83 9.5 16
- 23 Noncovalent titania wrapping of single-walled carbon nanotubes for environmentally stable transparent conductive thin films. *Journal of Materials Chemistry*, **2010**, 20, 8557 9
- 22 Direct observation of interfacial C₆₀ cluster formation in polystyrene-C₆₀ nanocomposite films. *Nanotechnology*, **2009**, 20, 105705 3.4 11

21	Molecular Engineering to Minimize the Sheet Resistance Increase of Single-Walled Carbon Nanotube/Binder Hybrid Conductive Thin Films. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 16915-16920	3.8	11
20	Wettability Controlled Fabrication of Highly Transparent and Conductive Carbon Nanotube/Silane Sol Hybrid Thin Films. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 6303-6307	3.9	5
19	Hydrogen-Bond-Driven Assembly of Thin Multiwalled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 15961-15965	3.8	18
18	Transparent, Conductive, and Superhydrophobic Films from Stabilized Carbon Nanotube/Silane Sol Mixture Solution. <i>Advanced Materials</i> , 2008 , 20, 3724-3727	2.4	164
17	Facile control of thermo-responsive wettability through an all-electrostatic self-assembling process. <i>Surface Science</i> , 2008 , 602, 3100-3105	1.8	8
16	UVO-tunable superhydrophobic to superhydrophilic wetting transition on biomimetic nanostructured surfaces. <i>Langmuir</i> , 2007 , 23, 2608-14	4	67
15	Sequential formation of calcium carbonate superstructure: From solid/hollow spheres to sponge-like/solid films. <i>Journal of Crystal Growth</i> , 2007 , 308, 110-116	1.6	21
14	Precise control of surface wettability of mixed monolayers using a simple wiping method. <i>Thin Solid Films</i> , 2006 , 515, 2079-2084	2.2	17
13	Photoreversibly switchable superhydrophobic surface with erasable and rewritable pattern. <i>Journal of the American Chemical Society</i> , 2006 , 128, 14458-9	16.4	307
12	Two modes of transformation of amorphous calcium carbonate films in air. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 2764-70	3.4	86
11	Fabrication of a bionic superhydrophobic metal surface by sulfur-induced morphological development. <i>Journal of Materials Chemistry</i> , 2005 , 15, 3089		93
10	Stable superhydrophobic organic-inorganic hybrid films by electrostatic self-assembly. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 20773-8	3.4	168
9	Biomimetic Fabrication of Vaterite Film from Amorphous Calcium Carbonate on Polymer Melt: Effect of Polymer Chain Mobility and Functionality. <i>Chemistry of Materials</i> , 2005 , 17, 136-141	9.6	50
8	Diverse access to artificial superhydrophobic surfaces using block copolymers. <i>Langmuir</i> , 2005 , 21, 6662-5	4	207
7	Layered Silicate-Induced Enhancement of Fracture Toughness of Epoxy Molding Compounds over a Wide Temperature Range. <i>Macromolecular Materials and Engineering</i> , 2005 , 290, 1184-1191	3.9	18
6	Deposition of amorphous calcium carbonate hemispheres on substrates. <i>Langmuir</i> , 2005 , 21, 4801-4	4	39
5	Control of the electrical and adhesion properties of metal/organic interfaces with self-assembled monolayers. <i>Applied Physics Letters</i> , 2005 , 86, 171906	3.4	22
4	Formation of Amorphous Calcium Carbonate Thin Films and Their Role in Biomineralization. <i>Chemistry of Materials</i> , 2004 , 16, 1740-1746	9.6	115

3	Fabrication of superhydrophobic surface from a supramolecular organosilane with quadruple hydrogen bonding. <i>Journal of the American Chemical Society</i> , 2004 , 126, 4796-7	16.4	205
2	Pattern Formation in Ultrathin Films of a Novel Dimethylsiloxane-Acrylate Triblock Copolymer. <i>Macromolecules</i> , 2003 , 36, 8902-8905	5.5	2
1	All-Printed Paper-Based Micro-supercapacitors Using Water-Based Additive-Free Oxidized Single-Walled Carbon Nanotube Pastes. <i>ACS Applied Energy Materials</i> ,	6.1	3