

# Bong Gill Choi

## List of Publications by Year in descending order

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89  
papers

4,861  
citations

117453

34  
h-index

91712

69  
g-index

91  
all docs

91  
docs citations

91  
times ranked

8238  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D Macroporous Graphene Frameworks for Supercapacitors with High Energy and Power Densities. ACS Nano, 2012, 6, 4020-4028.	7.3	1,186
2	Solution Chemistry of Self-Assembled Graphene Nanohybrids for High-Performance Flexible Biosensors. ACS Nano, 2010, 4, 2910-2918.	7.3	343
3	High performance of a solid-state flexible asymmetric supercapacitor based on graphene films. Nanoscale, 2012, 4, 4983.	2.8	303
4	Tin-based anode materials with well-designed architectures for next-generation lithium-ion batteries. Journal of Power Sources, 2016, 321, 11-35.	4.0	195
5	3D heterostructured architectures of Co <sub>3</sub> O <sub>4</sub> nanoparticles deposited on porous graphene surfaces for high performance of lithium ion batteries. Nanoscale, 2012, 4, 5924.	2.8	182
6	High-performance supercapacitor based on three-dimensional MoS <sub>2</sub> /graphene aerogel composites. Composites Science and Technology, 2015, 121, 123-128.	3.8	122
7	Extremely Fast Self-Healable Bio-Based Supramolecular Polymer for Wearable Real-Time Sweat-Monitoring Sensor. ACS Applied Materials & Interfaces, 2019, 11, 46165-46175.	4.0	110
8	Polyoxometalate-coupled Graphene via Polymeric Ionic Liquid Linker for Supercapacitors. Advanced Functional Materials, 2014, 24, 7301-7309.	7.8	107
9	Enhanced Pseudocapacitance of Ionic Liquid/Cobalt Hydroxide Nanohybrids. ACS Nano, 2013, 7, 2453-2460.	7.3	99
10	Ultrathin sandwich-like MoS <sub>2</sub> @N-doped carbon nanosheets for anodes of lithium ion batteries. Nanoscale, 2015, 7, 324-329.	2.8	99
11	Heteroassembled gold nanoparticles with sandwich-immunoassay LSPR chip format for rapid and sensitive detection of hepatitis B virus surface antigen (HBsAg). Biosensors and Bioelectronics, 2018, 107, 118-122.	5.3	91
12	MnO <sub>2</sub> Nanowire/Biomass-Derived Carbon from Hemp Stem for High-Performance Supercapacitors. Langmuir, 2017, 33, 5140-5147.	1.6	89
13	Hierarchical porous microspheres of the Co <sub>3</sub> O <sub>4</sub> @graphene with enhanced electrocatalytic performance for electrochemical biosensors. Biosensors and Bioelectronics, 2017, 89, 612-619.	5.3	85
14	High performance flexible pH sensor based on polyaniline nanopillar array electrode. Journal of Colloid and Interface Science, 2017, 490, 53-58.	5.0	82
15	Highly self-healable and flexible cable-type pH sensors for real-time monitoring of human fluids. Biosensors and Bioelectronics, 2020, 150, 111946.	5.3	78
16	High performance electrochemical glucose sensor based on three-dimensional MoS <sub>2</sub> /graphene aerogel. Journal of Colloid and Interface Science, 2017, 506, 379-385.	5.0	75
17	Protein-directed assembly of cobalt phosphate hybrid nanoflowers. Journal of Colloid and Interface Science, 2016, 484, 44-50.	5.0	69
18	Facile and fast microwave-assisted fabrication of activated and porous carbon cloth composites with graphene and MnO <sub>2</sub> for flexible asymmetric supercapacitors. Electrochimica Acta, 2018, 280, 9-16.	2.6	69

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19	Potentiometric performance of flexible pH sensor based on polyaniline nanofiber arrays. <i>Nano Convergence</i> , 2019, 6, 9.	6.3	69
20	Development of Lateral Flow Assay Based on Size-Controlled Gold Nanoparticles for Detection of Hepatitis B Surface Antigen. <i>Sensors</i> , 2016, 16, 2154.	2.1	61
21	Free-standing molybdenum disulfide/graphene composite paper as a binder- and carbon-free anode for lithium-ion batteries. <i>Journal of Power Sources</i> , 2015, 288, 76-81.	4.0	59
22	Three-Dimensional Expanded Graphene-Metal Oxide Film via Solid-State Microwave Irradiation for Aqueous Asymmetric Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 22364-22371.	4.0	58
23	Microwave-assisted synthesis of highly water-soluble graphene towards electrical DNA sensor. <i>Nanoscale</i> , 2010, 2, 2692.	2.8	56
24	Simultaneous synthesis of NiO/reduced graphene oxide composites by ball milling using bulk Ni and graphite oxide for supercapacitor applications. <i>Journal of Electroanalytical Chemistry</i> , 2017, 786, 14-19.	1.9	52
25	Directed Self-Assembly of Gold Nanoparticles on Graphene-Ionic Liquid Hybrid for Enhancing Electrocatalytic Activity. <i>Electroanalysis</i> , 2011, 23, 850-857.	1.5	51
26	Nonstop Monomer-to-Aramid Nanofiber Synthesis with Remarkable Reinforcement Ability. <i>Macromolecules</i> , 2019, 52, 923-934.	2.2	49
27	Flexible and Disposable Sensing Platforms Based on Newspaper. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 34978-34984.	4.0	46
28	Nanopillar films with polyoxometalate-doped polyaniline for electrochemical detection of hydrogen peroxide. <i>Analyst</i> , 2016, 141, 1319-1324.	1.7	44
29	Alternative-Ultrathin Assembling of Exfoliated Manganese Dioxide and Nitrogen-Doped Carbon Layers for High-Mass-Loading Supercapacitors with Outstanding Capacitance and Impressive Rate Capability. <i>Advanced Functional Materials</i> , 2021, 31, 2009632.	7.8	44
30	Fluid-Dynamics-Processed Highly Stretchable, Conductive, and Printable Graphene Inks for Real-Time Monitoring Sweat during Stretching Exercise. <i>Advanced Functional Materials</i> , 2021, 31, 2011059.	7.8	44
31	Polyoxometalate-grafted graphene nanohybrid for electrochemical detection of hydrogen peroxide and glucose. <i>Journal of Colloid and Interface Science</i> , 2016, 468, 51-56.	5.0	43
32	Scalable Nanopillar Arrays with Layer-by-Layer Patterned Overt and Covert Images. <i>Advanced Materials</i> , 2014, 26, 6119-6124.	11.1	42
33	Fabrication of Flexible, Redoxable, and Conductive Nanopillar Arrays with Enhanced Electrochemical Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 22220-22226.	4.0	40
34	Highly Concentrated, Conductive, Defect-free Graphene Ink for Screen-Printed Sensor Application. <i>Nano-Micro Letters</i> , 2021, 13, 87.	14.4	36
35	Sonochemical-assisted synthesis of 3D graphene/nanoparticle foams and their application in supercapacitor. <i>Ultrasonics Sonochemistry</i> , 2015, 22, 422-428.	3.8	35
36	Flexible nanopillar-based electrochemical sensors for genetic detection of foodborne pathogens. <i>Nano Convergence</i> , 2018, 5, 15.	6.3	35

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37	Fast and Scalable Hydrodynamic Synthesis of MnO <sub>2</sub> /Defect-Free Graphene Nanocomposites with High Rate Capability and Long Cycle Life. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 35250-35259.	4.0	34
38	Large-Area and 3D Polyaniline Nanoweb Film for Flexible Supercapacitors with High Rate Capability and Long Cycle Life. <i>ACS Applied Energy Materials</i> , 2020, 3, 7746-7755.	2.5	33
39	Controlling Size, Amount, and Crystalline Structure of Nanoparticles Deposited on Graphenes for Highly Efficient Energy Conversion and Storage. <i>ChemSusChem</i> , 2012, 5, 709-715.	3.6	29
40	Scalable Water-Based Production of Highly Conductive 2D Nanosheets with Ultrahigh Volumetric Capacitance and Rate Capability. <i>Advanced Energy Materials</i> , 2018, 8, 1800227.	10.2	26
41	Electrochemical characterization of reduced graphene oxide as an ion-to-electron transducer and application of screen-printed all-solid-state potassium ion sensors. <i>Carbon Letters</i> , 2020, 30, 73-80.	3.3	26
42	Sustainable Boron Nitride Nanosheet-Reinforced Cellulose Nanofiber Composite Film with Oxygen Barrier without the Cost of Color and Cytotoxicity. <i>Polymers</i> , 2018, 10, 501.	2.0	25
43	High density decoration of noble metal nanoparticles on polydopamine-functionalized molybdenum disulphide. <i>Journal of Colloid and Interface Science</i> , 2015, 451, 216-220.	5.0	24
44	Hydraulic Power Manufacturing for Highly Scalable and Stable 2D Nanosheet Dispersions and Their Film Electrode Application. <i>Advanced Functional Materials</i> , 2018, 28, 1802952.	7.8	24
45	3D Hierarchical Nanotopography for On-Site Rapid Capture and Sensitive Detection of Infectious Microbial Pathogens. <i>ACS Nano</i> , 2021, 15, 4777-4788.	7.3	23
46	Rapid one-step synthesis of conductive and porous MnO <sub>2</sub> /graphene nanocomposite for high performance supercapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2016, 776, 134-138.	1.9	22
47	Fabrication of newspaper-based potentiometric platforms for flexible and disposable ion sensors. <i>Journal of Colloid and Interface Science</i> , 2017, 508, 167-173.	5.0	21
48	Nitrogen-doped carbon-coated molybdenum disulfide nanosheets for high-performance supercapacitor. <i>Synthetic Metals</i> , 2015, 209, 528-533.	2.1	19
49	Antibacterial Nanopillar Array for an Implantable Intraocular Lens. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000447.	3.9	19
50	Preparation of ultrathin defect-free graphene sheets from graphite via fluidic delamination for solid-contact ion-to-electron transducers in potentiometric sensors. <i>Journal of Colloid and Interface Science</i> , 2020, 560, 817-824.	5.0	17
51	Low-current field-assisted assembly of copper nanoparticles for current collectors. <i>Faraday Discussions</i> , 2015, 181, 383-401.	1.6	16
52	Flexible nanopillar-based immunoelectrochemical biosensor for noninvasive detection of Amyloid beta. <i>Nano Convergence</i> , 2020, 7, 29.	6.3	16
53	Graphene growth from reduced graphene oxide by chemical vapour deposition: seeded growth accompanied by restoration. <i>Scientific Reports</i> , 2016, 6, 22653.	1.6	15
54	Scalable exfoliation and activation of graphite into porous graphene using microwaves for high-performance supercapacitors. <i>Journal of Alloys and Compounds</i> , 2019, 770, 458-465.	2.8	15

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55	High-Throughput Production of Heterogeneous RuO <sub>2</sub> /Graphene Catalyst in a Hydrodynamic Reactor for Selective Alcohol Oxidation. <i>Catalysts</i> , 2019, 9, 25.	1.6	14
56	Dopamine-induced Pt and N-doped carbon@silica hybrids as high-performance anode catalysts for polymer electrolyte membrane fuel cells. <i>RSC Advances</i> , 2014, 4, 42582-42584.	1.7	12
57	Hierarchical MnO <sub>2</sub> nanosheet arrays on carbon fiber for high-performance pseudocapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2015, 759, 95-100.	1.9	12
58	Two-Dimensional Heterogeneous Ruthenium-Molybdenum Disulfide Nanocatalyst for the Selective Aerobic Oxidation of Amines. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 7043-7047.	1.8	12
59	Development of zinc oxide-based sub-micro pillar arrays for on-site capture and DNA detection of foodborne pathogen. <i>Journal of Colloid and Interface Science</i> , 2020, 563, 54-61.	5.0	12
60	Synthesis of two-dimensional holey MnO <sub>2</sub> /graphene oxide nanosheets with high catalytic performance for the glycolysis of poly(ethylene terephthalate). <i>Materials Today Communications</i> , 2021, 26, 101857.	0.9	12
61	Large-scale Fast Fluid Dynamic Processes for the Syntheses of 2D Nanohybrids of Metal Nanoparticle-Deposited Boron Nitride Nanosheet and Their Glycolysis of Poly(ethylene terephthalate). <i>Advanced Materials Interfaces</i> , 2020, 7, 2000599.	1.9	11
62	Preparation of Three-Dimensional Co <sub>3</sub> O <sub>4</sub> /graphene Composite for High-Performance Supercapacitors. <i>Chemical Engineering Communications</i> , 2017, 204, 723-728.	1.5	10
63	Influence of operating temperature on CO <sub>2</sub> -NH <sub>3</sub> reaction in an aqueous solution. <i>Korean Journal of Chemical Engineering</i> , 2012, 29, 478-482.	1.2	9
64	Facile Functionalization of Colloidal Gold Nanorods by the Specific Binding of an Engineered Protein that Is Preferred over CTAB Bilayers. <i>ChemPlusChem</i> , 2013, 78, 48-51.	1.3	9
65	Highly ordered gold-nanotube films for flow-injection amperometric glucose biosensors. <i>RSC Advances</i> , 2014, 4, 40286.	1.7	8
66	A Batteryless Chronic Wound Monitoring System With 13.56-MHz Energy Harvesting. <i>IEEE Sensors Journal</i> , 2019, 19, 9431-9440.	2.4	8
67	Bio-inspired Hierarchical Nanoweb for Green Catalysis. <i>Small</i> , 2015, 11, 4292-4297.	5.2	7
68	All-solid state flexible supercapacitors based on graphene/polymer composites. <i>Materials Chemistry and Physics</i> , 2015, 159, 114-118.	2.0	7
69	Facile and scalable synthesis of nanostructured Fe <sub>2</sub> O <sub>3</sub> using ionic liquid-assisted ball milling for high-performance pseudocapacitors. <i>Solid State Sciences</i> , 2018, 83, 201-206.	1.5	7
70	Materials Engineering of High-Performance Anodes as Layered Composites with Self-Assembled Conductive Networks. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14014-14028.	1.5	7
71	Fluid Dynamics-Induced Surface Engineering for Holey and Stable Metallic MoS <sub>2</sub> Nanosheets with High Pseudocapacitance and Ultrafast Rate Capability. <i>ACS Applied Energy Materials</i> , 2020, 3, 12078-12087.	2.5	6
72	Fast and facile synthesis of two-dimensional Fe <sup>III</sup> nanosheets based on fluid-shear exfoliation for highly catalytic glycolysis of poly(ethylene terephthalate). <i>Reaction Chemistry and Engineering</i> , 2021, 6, 297-303.	1.9	6

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73	3D Hierarchical Polyaniline-Metal Hybrid Nanopillars: Morphological Control and Its Antibacterial Application. <i>Nanomaterials</i> , 2021, 11, 2716.	1.9	6
74	Porous Anodic Aluminum Oxide as an Efficient Support for Ruthenium-Catalyzed Aerobic Oxidation of Alcohols and Amines. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 23025-23031.	1.8	5
75	High-performance pseudocapacitor electrodes based on the flower-like nickel sulfide coated carbon nanofiber webs. <i>Microelectronic Engineering</i> , 2020, 222, 111205.	1.1	5
76	Compact and porous 3D MnO <sub>2</sub> /holey graphene films for high areal and volumetric performance in supercapacitors with high-thick electrodes. <i>FlatChem</i> , 2021, 29, 100268.	2.8	5
77	Touchable 3D hierarchically structured polyaniline nanoweb for capture and detection of pathogenic bacteria. <i>Nano Convergence</i> , 2021, 8, 30.	6.3	5
78	Polymeric ionic liquid-promoted high dispersion of Pt nanoparticles on graphene. <i>Materials Letters</i> , 2014, 132, 373-376.	1.3	4
79	A Batteryless Chronic Wound Monitoring System with NFC. , 2019, , .		4
80	Ultrathin MoS <sub>2</sub> @C layered structure as an anode of lithium ion battery. <i>MRS Advances</i> , 2016, 1, 1021-1027.	0.5	2
81	Highly ordered nanoscale phosphomolybdate-grafted polyaniline/metal hybrid layered structures prepared via secondary sputtering phenomenon as high-performance pseudocapacitor electrodes. <i>Physica Scripta</i> , 2021, 96, 125882.	1.2	2
82	Label-free Electrochemical Biosensor Based on Graphene/Ionic Liquid Nanocomposite for the Detection of Organophosphate Pesticides. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1283, 1.	0.1	1
83	1D and 3D Shaped Ionic Liquid/Aluminum Hydroxide Nanohybrids for Electrochemical Device. , 2007, , .		0
84	Nanopatterning: Scalable Nanopillar Arrays with Layer-by-Layer Patterned Overt and Covert Images ( <i>Adv. Mater.</i> 35/2014). <i>Advanced Materials</i> , 2014, 26, 6200-6200.	11.1	0
85	Micropillar array embedded system for single cell encapsulation in hydrogel. <i>Materials Research Society Symposia Proceedings</i> , 2015, 1724, 18.	0.1	0
86	2D Nanosheets: Hydraulic Power Manufacturing for Highly Scalable and Stable 2D Nanosheet Dispersions and Their Film Electrode Application ( <i>Adv. Funct. Mater.</i> 43/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870307.	7.8	0
87	Supercapacitors: Scalable Water-Based Production of Highly Conductive 2D Nanosheets with Ultrahigh Volumetric Capacitance and Rate Capability ( <i>Adv. Energy Mater.</i> 18/2018). <i>Advanced Energy Materials</i> , 2018, 8, 1870084.	10.2	0
88	Fluid Dynamic Reactors: Large-Scale Fast Fluid Dynamic Processes for the Syntheses of 2D Nanohybrids of Metal Nanoparticle-Deposited Boron Nitride Nanosheet and Their Glycolysis of Poly(ethylene Terephthalate) on Graphene Oxide. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 10000-10000.	0.0	0
89	Synthesis of MnO <sub>2</sub> Nanowires by Hydrothermal Method and their Electrochemical Characteristics. <i>Applied Chemistry for Engineering</i> , 2016, 27, 653-658.	0.2	0