Won Mook Choi

List of Publications by Citations

75 papers	7,388 citations	33 h-index	77 g-index
77 ext. papers	8,152 ext. citations	8.6 avg, IF	5.67 L-index

#	Paper	IF	Citations
75	Stretchable and foldable silicon integrated circuits. *Science*, **2008**, 320, 507-11	33.3	1280
74	A hemispherical electronic eye camera based on compressible silicon optoelectronics. *Nature*, **2008**, 454, 748-53	50.4	1004
73	Controlled buckling of semiconductor nanoribbons for stretchable electronics. *Nature Nanotechnology*, **2006**, 1, 201-7	28.7	719
72	Materials and noncoplanar mesh designs for integrated circuits with linear elastic responses to extreme mechanical deformations. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18675-80	11.5	541
71	Nanostructured graphene/Fe□□ncorporated polyaniline as a high performance shield against electromagnetic pollution. *Nanoscale*, **2013**, 5, 2411-20	7.7	442
70	Biaxially stretchable "wavy" silicon nanomembranes. *Nano Letters*, **2007**, 7, 1655-63	11.5	314
69	Fully rollable transparent nanogenerators based on graphene electrodes. *Advanced Materials*, **2010**, 22, 2187-92	24	258
68	Semiconductor wires and ribbons for high-performance flexible electronics. *Angewandte Chemie - International Edition*, **2008**, 47, 5524-42	16.4	253
67	Control of electronic structure of graphene by various dopants and their effects on a nanogenerator. *Journal of the American Chemical Society*, **2010**, 132, 15603-9	16.4	223
66	Synthesis of a highly conductive and large surface area graphene oxide hydrogel and its use in a supercapacitor. *Journal of Materials Chemistry A*, **2013**, 1, 208-211	13	189
65	Synthesis of multilayer graphene balls by carbon segregation from nickel nanoparticles. *ACS Nano*, **2012**, 6, 6803-11	16.7	145
64	Synthesis of B-doped graphene quantum dots as a metal-free electrocatalyst for the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2017**, 5, 10537-10543	13	136
63	One-pot synthesis of N-doped graphene quantum dots as a fluorescent sensing platform for Fe3+ ions detection. *Sensors and Actuators B: Chemical*, **2014**, 202, 568-573	8.5	136
62	Direct growth of semiconducting single-walled carbon nanotube array. *Journal of the American Chemical Society*, **2009**, 131, 14642-3	16.4	134
61	Preparation and characterization of poly(hydroxybutyrate-co-hydroxyvalerate)□rganoclay nanocomposites. *Journal of Applied Polymer Science*, **2003**, 90, 525-529	2.9	125
60	Novel Graphene Hydrogel/B-Doped Graphene Quantum Dots Composites as Trifunctional Electrocatalysts for Zn□Air Batteries and Overall Water Splitting. *Advanced Energy Materials*, **2019**, 9, 1900945	21.8	86
59	Transfer-free growth of few-layer graphene by self-assembled monolayers. *Advanced Materials*, **2011**, 23, 4392-7	24	75

58	Printable, Flexible, and Stretchable Forms of Ultrananocrystalline Diamond with Applications in Thermal Management. *Advanced Materials*, **2008**, 20, 2171-2176	24	71
57	Highly-ordered maghemite/reduced graphene oxide nanocomposites for high-performance photoelectrochemical water splitting. *RSC Advances*, **2015**, 5, 29159-29166	3.7	68
56	Facile synthesis of three-dimensional graphene/nickel oxide nanoparticles composites for high performance supercapacitor electrodes. *Chemical Engineering Journal*, **2015**, 264, 603-609	14.7	66
55	Liquid-phase exfoliation of graphene in organic solvents with addition of naphthalene. *Journal of Colloid and Interface Science*, **2014**, 418, 37-42	9.3	60
54	NiO nanoarrays of a few atoms thickness on 3D nickel network for enhanced pseudocapacitive electrode applications. *Journal of Power Sources*, **2016**, 303, 363-371	8.9	58
53	Selective growth of ZnO nanorods on SiO2/Si substrates using a graphene buffer layer. *Nano Research*, **2011**, 4, 440-447	10	55
52	A soft-imprint technique for direct fabrication of submicron scale patterns using a surface-modified PDMS mold. *Microelectronic Engineering*, **2003**, 70, 131-136	2.5	49
51	Highly biocompatible phenylboronic acid-functionalized graphitic carbon nitride quantum dots for the selective glucose sensor. *Sensors and Actuators B: Chemical*, **2019**, 282, 36-44	8.5	47
50	A systematic study of triangular silver nanoplates: one-pot green synthesis, chemical stability, and sensing application. *Nanoscale*, **2017**, 9, 11705-11712	7.7	45
49	Facile synthesis of cysteine-functionalized graphene quantum dots for a fluorescence probe for mercury ions. *RSC Advances*, **2015**, 5, 97598-97603	3.7	43
48	The fabrication of submicron patterns on curved substrates using a polydimethylsiloxane film mould. *Nanotechnology*, **2004**, 15, 1767-1770	3.4	42
47	Thermal and mechanical properties of syndiotactic polystyrene/organoclay nanocomposites with different microstructures. *Journal of Polymer Science, Part B: Polymer Physics*, **2004**, 42, 1685-1693	2.6	40
46	Synthesis and material properties of syndiotactic polystyrene/organophilic clay nanocomposites. *Journal of Applied Polymer Science*, **2004**, 92, 2144-2150	2.9	36
45	High quality graphene-semiconducting oxide heterostructure for inverted organic photovoltaics. *Journal of Materials Chemistry*, **2012**, 22, 13032		35
44	Effects of organoclay modification on microstructure and properties of polypropylene-organoclay nanocomposites. *Journal of Applied Polymer Science*, **2006**, 99, 1752-1759	2.9	35
43	Pyromellitic acid-derived highly fluorescent N-doped carbon dots for the sensitive and selective determination of 4-nitrophenol. *Dyes and Pigments*, **2019**, 165, 327-334	4.6	34
42	3D crumpled RGO-Co 3 O 4 photocatalysts for UV-induced hydrogen evolution reaction. *Materials Letters*, **2014**, 136, 118-121	3.3	32
41	Thermal conversion of electronic and electrical properties of AuCl3-doped single-walled carbon nanotubes. *ACS Nano*, **2011**, 5, 1353-9	16.7	31

40	Nanopillar InGaN/GaN light emitting diodes integrated with homogeneous multilayer graphene electrodes. *Journal of Materials Chemistry*, **2011**, 21, 17688		30
39	Work-function engineering of carbon nanotube transparent conductive films. *Carbon*, **2010**, 48, 520-524	10.4	27
38	Miscibility and rheological properties of poly(vinyl chloride)/styrene–acrylonitrile blends prepared by melt extrusion. *Journal of Applied Polymer Science*, **2007**, 104, 95-101	2.9	26
37	Graphene modified copper current collector for enhanced electrochemical performance of Li-ion battery. *Scripta Materialia*, **2018**, 146, 100-104	5.6	26
36	Facile synthesis of graphene/N-doped carbon nanowire composites as an effective electrocatalyst for the oxygen reduction reaction. *International Journal of Hydrogen Energy*, **2015**, 40, 6827-6834	6.7	24
35	Ultraviolet light sensor based on graphene quantum dots/reduced graphene oxide hybrid film. *Sensors and Actuators A: Physical*, **2015**, 233, 368-373	3.9	22
34	Graphene quantum dots/Ni(OH)2 nanocomposites on carbon cloth as a binder-free electrode for supercapacitors. *Journal of Materials Science and Technology*, **2020**, 58, 73-79	9.1	22
33	One-pot synthesis of highly fluorescent amino-functionalized graphene quantum dots for effective detection of copper ions. *Current Applied Physics*, **2018**, 18, 1255-1260	2.6	21
32	A novel preparation method of maleic anhydride grafted syndiotactic polystyrene and its blend performance with nylon6. *Polymer Bulletin*, **2002**, 48, 397-405	2.4	19
31	Facile fabrication of thermally reduced graphene oxide–platinum nanohybrids and their application in catalytic reduction and dye-sensitized solar cells. *RSC Advances*, **2016**, 6, 1535-1541	3.7	18
30	Thermal actuation properties of bimorph based on PVDF/rGO composites. *Composites Science and Technology*, **2016**, 122, 82-89	8.6	18
29	Influence of Cu crystallographic orientation on electron transport in graphene. *Applied Physics Letters*, **2013**, 102, 163102	3.4	18
28	Novel paper- and fiber optic-based fluorescent sensor for glucose detection using aniline-functionalized graphene quantum dots. *Sensors and Actuators B: Chemical*, **2021**, 329, 129250	8.5	17
27	Cerium-Oxide-Nanoparticle-Decorated Zinc Oxide with Enhanced Photocatalytic Degradation of Methyl Orange. *Applied Sciences (Switzerland)*, **2020**, 10, 1697	2.6	16
26	Carbon-coated silicon/crumpled graphene composite as anode material for lithium-ion batteries. *Current Applied Physics*, **2019**, 19, 1349-1354	2.6	16
25	Gold artichokes for enhanced photocatalysis. *Materials Letters*, **2015**, 160, 92-95	3.3	14
24	Interfacial electronic structures between fullerene and multilayer graphene for n-type organic semiconducting devices. *Carbon*, **2011**, 49, 4936-4939	10.4	13
23	Simple paper-based colorimetric and fluorescent glucose sensor using N-doped carbon dots and metal oxide hybrid structures. *Analytica Chimica Acta*, **2021**, 1147, 187-198	6.6	13

22	Highly sensitive smartphone-integrated colorimetric glucose sensor based on MnFe2O4 graphitic carbon nitride hybrid nanostructure. *Materials Research Bulletin*, **2020**, 129, 110910	5.1	12
21	Effect of diblock copolymers on morphology and mechanical properties for syndiotactic polystyrene/ethylene-propylene copolymer blends. *Journal of Applied Polymer Science*, **2004**, 91, 3618-3626	2.9	12
20	Patterning polymer light-emitting diodes by micromolding in capillary. *Current Applied Physics*, **2006**, 6, 627-631	2.6	11
19	Improved photocatalytic activity of surface charge functionalized ZnO nanoparticles using aniline. *Journal of Materials Science and Technology*, **2021**, 76, 1-10	9.1	11
18	Fabrication of g-C3N4 Quantum Dots/MnCO3 Nanocomposite on Carbon Cloth for Flexible Supercapacitor Electrode. *Applied Sciences (Switzerland)*, **2020**, 10, 7927	2.6	8
17	Polymer electrolyte membrane fuel cell performance degradation by coolant leakage and recovery. *Journal of Power Sources*, **2013**, 226, 320-328	8.9	8
16	Hierarchical hollow urchin-like structured MnO2 microsphere/carbon nanofiber composites as anode materials for Li-ion batteries. *Current Applied Physics*, **2019**, 19, 768-774	2.6	7
15	Growth of high quality ZnO nanowires on graphene. *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 1551-4	1.3	7
14	Template-free synthesis of hierarchical NiO microtubes as high performance anode materials for Li-ion batteries. *Current Applied Physics*, **2019**, 19, 715-720	2.6	6
13	Compressed-carbon dioxide (CO2) assisted nanoimprint lithography using polymeric mold. *Microelectronic Engineering*, **2006**, 83, 1957-1960	2.5	6
12	A double core shell modification of bulk TiO2 microspheres into porous N-doped-graphene carbon nanoflakes/N-doped TiO2 microspheres for lithium-ion battery anodes. *RSC Advances*, **2015**, 5, 38334-38344	3.7	5
11	Simple and rapid fabrication of large-area 2D colloidal crystals for nanopatterning of conducting polymers. *Microelectronic Engineering*, **2013**, 110, 1-5	2.5	5
10	Multicolor Emitting N-Doped Carbon Dots Derived from Ascorbic Acid and Phenylenediamine Precursors. *Nanoscale Research Letters*, **2020**, 15, 222	5	5
9	Solution-Processed Transparent Intermediate Layer for Organic Tandem Solar Cell Using Nitrogen-Doped Graphene Quantum Dots. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 5686-5692	1.3	4
8	Soft-imprint technique for multilevel microstructures using poly(dimethylsiloxane) mold combined with a screen mask. *Applied Physics Letters*, **2004**, 85, 3310-3312	3.4	3
7	Designing an intriguingly fluorescent N, B-doped carbon dots based fluorescent probe for selective detection of NO ions. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 268, 120657	4.4	2
6	Construction and Mechanism Analysis of a Self-Assembled Conductive Network in DGEBA/PEI/HRGO Nanocomposites by Controlling Filler Selective Localization. *Nanomaterials*, **2021**, 11,	5.4	2
5	Preparation and Characterization of Photoluminescent Graphene Quantum Dots from Watermelon Rind Waste for the Detection of Ferric Ions and Cellular Bio-Imaging Applications.. *Nanomaterials*, **2022**, 12,	5.4	2

4	Fabrication of sub-micrometer graphene ribbon using electrospun nanofiber. *Journal of Materials Science*, **2014**, 49, 1240-1245	4.3	1
3	Facile synthesis of g-CN quantum dots/graphene hydrogel nanocomposites for high-performance supercapacitor.. *RSC Advances*, **2022**, 12, 3561-3568	3.7	1
2	Enhanced Electromagnetic Interference Shielding Properties of Immiscible Polyblends with Selective Localization of Reduced Graphene Oxide Networks.. *Polymers*, **2022**, 14,	4.5	1
1	Ultrathin freestanding PDA-Doped rGO/MWCNT composite paper for electromagnetic interference shielding applications. *Chemical Engineering Journal*, **2022**, 430, 132808	14.7	0