Chong Min Koo

List of Publications by Year
in descending order

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90 papers	10,841 citations	81839 39 h-index	49868 87 g-index
97 all docs	97 docs citations	97 times ranked	9724 citing authors

#	Article	IF	Citations
1	Electromagnetic interference shielding with 2D transition metal carbides (MXenes). Science, 2016, 353, 1137-1140.	6.0	3,688
2	Anomalous absorption of electromagnetic waves by 2D transition metal carbonitride Ti ₃ CNT _x (MXene). Science, 2020, 369, 446-450.	6.0	844
3	Beyond Ti₃C₂T_x: MXenes for Electromagnetic Interference Shielding. ACS Nano, 2020, 14, 5008-5016.	7.3	489
4	2D MXenes for Electromagnetic Shielding: A Review. Advanced Functional Materials, 2020, 30, 2000883.	7.8	443
5	Electromagnetic Shielding of Monolayer MXene Assemblies. Advanced Materials, 2020, 32, e1906769.	11.1	410
6	Large-area reduced graphene oxide thin film with excellent thermal conductivity and electromagnetic interference shielding effectiveness. Carbon, 2015, 94, 494-500.	5.4	386
7	Ultralight and Mechanically Robust Ti₃C₂T_x Hybrid Aerogel Reinforced by Carbon Nanotubes for Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2019, 11, 38046-38054.	4.0	283
8	Anisotropic MXene Aerogels with a Mechanically Tunable Ratio of Electromagnetic Wave Reflection to Absorption. Advanced Optical Materials, 2019, 7, 1900267.	3.6	245
9	Mussel Inspired Highly Aligned Ti₃C₂T_x MXene Film with Synergistic Enhancement of Mechanical Strength and Ambient Stability. ACS Nano, 2020, 14, 11722-11732.	7.3	212
10	Ultrahigh electrically and thermally conductive self-aligned graphene/polymer composites using large-area reduced graphene oxides. Carbon, 2016, 101, 120-128.	5.4	208
11	2D Transition Metal Carbides (MXenes): Applications as an Electrically Conducting Material. Advanced Materials, 2020, 32, e2002159.	11.1	201
12	Improving oxidation stability of 2D MXenes: synthesis, storage media, and conditions. Nano Convergence, 2021, 8, 9.	6.3	194
13	Musselâ€Inspired Block Copolymer Lithography for Low Surface Energy Materials of Teflon, Graphene, and Gold. Advanced Materials, 2011, 23, 5618-5622.	11.1	188
14	Shape-Adaptable 2D Titanium Carbide (MXene) Heater. ACS Nano, 2019, 13, 6835-6844.	7.3	162
15	High Through-Plane Thermal Conduction of Graphene Nanoflake Filled Polymer Composites Melt-Processed in an L-Shape Kinked Tube. ACS Applied Materials & Interfaces, 2015, 7, 15256-15262.	4.0	161
16	Enhanced Terahertz Shielding of MXenes with Nanoâ€Metamaterials. Advanced Optical Materials, 2018, 6, 1701076.	3.6	157
17	Nonpolar Organic Dispersion of 2D Ti₃C₂T_x MXene Flakes via Simultaneous Interfacial Chemical Grafting and Phase Transfer Method. ACS Nano, 2019, 13, 13818-13828.	7.3	131
18	Biomass-Derived Thermally Annealed Interconnected Sulfur-Doped Graphene as a Shield against Electromagnetic Interference. ACS Applied Materials & Interfaces, 2016, 8, 9361-9369.	4.0	124

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19	Sulfur doped graphene/polystyrene nanocomposites for electromagnetic interference shielding. Composite Structures, 2015, 133, 1267-1275.	3.1	121
20	Nafion-stabilized two-dimensional transition metal carbide (Ti3C2Tx MXene) as a high-performance electrochemical sensor for neurotransmitter. Journal of Industrial and Engineering Chemistry, 2019, 79, 338-344.	2.9	117
21	Density-tunable lightweight polymer composites with dual-functional ability of efficient EMI shielding and heat dissipation. Nanoscale, 2017, 9, 13432-13440.	2.8	112
22	Sulfur-doped graphene laminates for EMI shielding applications. Journal of Materials Chemistry C, 2015, 3, 9802-9810.	2.7	106
23	Binder-less chemical grafting of SiO2 nanoparticles onto polyethylene separators for lithium-ion batteries. Journal of Membrane Science, 2019, 573, 621-627.	4.1	83
24	Highly sensitive electrochemical sensor based on environmentally friendly biomass-derived sulfur-doped graphene for cancer biomarker detection. Sensors and Actuators B: Chemical, 2017, 241, 716-724.	4.0	82
25	Hybrid ionogel electrolytes for high temperature lithium batteries. Journal of Materials Chemistry A, 2015, 3, 2226-2233.	5.2	72
26	Towards Watt-scale hydroelectric energy harvesting by Ti₃C₂T_x-based transpiration-driven electrokinetic power generators. Energy and Environmental Science, 2022, 15, 123-135.	15.6	70
27	Low percolation 3D Cu and Ag shell network composites for EMI shielding and thermal conduction. Composites Science and Technology, 2019, 182, 107778.	3.8	67
28	Precision Interface Engineering of an Atomic Layer in Bulk Bi₂Te₃ Alloys for High Thermoelectric Performance. ACS Nano, 2019, 13, 7146-7154.	7.3	66
29	Mechanism and Kinetics of Oxidation Reaction of Aqueous Ti₃C₂T_x Suspensions at Different pHs and Temperatures. ACS Applied Materials & Interfaces, 2021, 13, 22855-22865.	4.0	64
30	Lithium Dendrite Suppression with UV-Curable Polysilsesquioxane Separator Binders. ACS Applied Materials & Interfaces, 2016, 8, 12852-12858.	4.0	63
31	Polymer-Laminated Ti₃C₂T_X MXene Electrodes for Transparent and Flexible Field-Driven Electronics. ACS Nano, 2021, 15, 8940-8952.	7.3	63
32	Novel polysilsesquioxane hybrid polymer electrolytes for lithium ion batteries. Journal of Materials Chemistry A, 2014, 2, 1277-1283.	5.2	58
33	Electric Actuation of Nanostructured Thermoplastic Elastomer Gels with Ultralarge Electrostriction Coefficients. Advanced Functional Materials, 2011, 21, 3242-3249.	7.8	55
34	Synthesis of Multifunctional Electrically Tunable Fluorine-Doped Reduced Graphene Oxide at Low Temperatures. ACS Applied Materials & Interfaces, 2017, 9, 24179-24189.	4.0	50
35	FeSiAl/metal core shell hybrid composite with high-performance electromagnetic interference shielding. Composites Science and Technology, 2019, 172, 66-73.	3.8	49
36	High-strain air-working soft transducers produced from nanostructured block copolymer ionomer/silicate/ionic liquid nanocomposite membranes. Journal of Materials Chemistry C, 2013, 1, 3784.	2.7	48

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37	Highly anisotropic Cu oblate ellipsoids incorporated polymer composites with excellent performance for broadband electromagnetic interference shielding. Composites Science and Technology, 2017, 144, 57-62.	3.8	47
38	Multidimensional Ti₃C₂T_xMXene ArchitecturesviaInterfacial Electrochemical Self-Assembly. ACS Nano, 2021, 15, 10058-10066.	7.3	46
39	Novel sulfonated styrenic pentablock copolymer/silicate nanocomposite membranes with controlled ion channels and their IPMC transducers. Sensors and Actuators B: Chemical, 2012, 162, 369-376.	4.0	42
40	Highly enhanced electromechanical properties of PVDF-TrFE/SWCNT nanocomposites using an efficient polymer compatibilizer. Composites Science and Technology, 2018, 157, 21-29.	3.8	41
41	Enhanced absorption of electromagnetic waves in Ti3C2T MXene films with segregated polymer inclusions. Composites Science and Technology, 2021, 213, 108878.	3.8	41
42	Facilitated Ion Transport in Smectic Ordered Ionic Liquid Crystals. Advanced Materials, 2016, 28, 9301-9307.	11.1	36
43	Engineering Aggregationâ€Resistant MXene Nanosheets As Highly Conductive and Stable Inks for Allâ€Printed Electronics. Advanced Functional Materials, 2021, 31, 2010897.	7.8	35
44	Lithium ion capacitors fabricated with polyethylene oxide-functionalized polysilsesquioxane hybrid ionogel electrolytes. Electrochimica Acta, 2016, 188, 582-588.	2.6	34
45	Segregated reduced graphene oxide polymer composite as a high performance electromagnetic interference shield. Research on Chemical Intermediates, 2018, 44, 4707-4719.	1.3	33
46	High-voltage ionic liquid electrolytes based on ether functionalized pyrrolidinium for electric double-layer capacitors. Electrochimica Acta, 2016, 222, 1847-1852.	2.6	31
47	Multifunctional Mesoporous Ionic Gels and Scaffolds Derived from Polyhedral Oligomeric Silsesquioxanes. ACS Applied Materials & Interfaces, 2017, 9, 3616-3623.	4.0	31
48	Hybrid ionogel electrolytes with POSS epoxy networks for high temperature lithium ion capacitors. Solid State Ionics, 2017, 309, 27-32.	1.3	31
49	Alternatingâ€Current MXene Polymer Lightâ€Emitting Diodes. Advanced Functional Materials, 2020, 30, 2001224.	7.8	30
50	Enhanced stability of Ti3C2Tx MXene enabled by continuous ZIF-8 coating. Carbon, 2022, 191, 593-599.	5.4	30
51	Reduction of Electrochemically Exfoliated Graphene Films for High-Performance Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2021, 13, 15827-15836.	4.0	27
52	Metal-Ion-Intercalated MXene Nanosheet Films for NH₃ Gas Detection. ACS Applied Nano Materials, 2021, 4, 14249-14257.	2.4	26
53	Ionic polymer actuator based on anion-conducting methylated ether-linked polybenzimidazole. Sensors and Actuators B: Chemical, 2015, 214, 43-49.	4.0	24
54	Flexible and Transparent Electrode of Hybrid Ti₃C₂T_X MXeneâ€“Silver Nanowires for High-Performance Quantum Dot Light-Emitting Diodes. ACS Nano, 2022, 16, 9203-9213.	7.3	22

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55	Continuous supercritical decrosslinking extrusion process for recycling of crosslinked polyethylene waste. Journal of Applied Polymer Science, 2015, 132, .	1.3	21
56	Boronic ionogel electrolytes to improve lithium transport for Li-ion batteries. Electrochimica Acta, 2016, 215, 36-41.	2.6	19
57	Blue membranes: Sulfonated copper(II) phthalocyanine tetrasulfonic acid based composite membranes for DMFC and low relative humidity PEMFC. Journal of Membrane Science, 2016, 502, 1-10.	4.1	19
58	Nonlinear Frameworks for Reversible and Pluripotent Wetting on Topographic Surfaces. Advanced Materials, 2017, 29, 1605078.	11.1	18
59	Understanding the enhanced electrochemical performance of TEMPO derivatives in non-aqueous lithium ion redox flow batteries. Journal of Industrial and Engineering Chemistry, 2019, 80, 545-550.	2.9	18
60	Control of hard block segments of methacrylate-based triblock copolymers for enhanced electromechanical performance. Polymer Chemistry, 2016, 7, 7391-7399.	1.9	17
61	Hybrid ionogels derived from polycationic polysilsesquioxanes for lithium ion batteries. Polymer, 2017, 117, 160-166.	1.8	16
62	Electromagnetic Interference Shielding: Electromagnetic Shielding of Monolayer MXene Assemblies (Adv. Mater. 9/2020). Advanced Materials, 2020, 32, 2070064.	11.1	16
63	Ion conduction behaviour in chemically crosslinked hybrid ionogels: effect of free-dangling oligoethyleneoxides. RSC Advances, 2015, 5, 94241-94247.	1.7	15
64	Kinetically controlled low-temperature solution-processed mesoporous rutile TiO2 for high performance lithium-ion batteries. Journal of Industrial and Engineering Chemistry, 2019, 80, 667-676.	2.9	15
65	Tunable polymer actuators via a simple and versatile blending approach. Sensors and Actuators B: Chemical, 2012, 174, 547-554.	4.0	14
66	Multispectral electromagnetic shielding using ultra-thin metal-metal oxide decorated hybrid nanofiber membranes. Communications Materials, 2021, 2, .	2.9	13
67	Electromagnetic shielding of Optically-Transparent and Electrically-Insulating ionic solutions. Chemical Engineering Journal, 2022, 438, 135564.	6.6	12
68	Optimum compatibilization for the nonflammability of thermoplasticized crosslinked polyethylene/metal hydroxides composites with a compatibilizer. Journal of Applied Polymer Science, 2012, 124, 2814-2823.	1.3	11
69	Flame retardancy and mechanical properties of polyamide 6 with melamine polyphosphate and ionic liquid surfactantâ€treated montmorillonite. Journal of Applied Polymer Science, 2014, 131, .	1.3	11
70	High-performance polymer ionomerâ€“ionic liquid membrane IPMC actuator. Research on Chemical Intermediates, 2014, 40, 41-48.	1.3	11
71	Styrenic block copolymer/sulfonated graphene oxide composite membranes for highly bendable ionic polymer actuators with large ion concentration gradient. Composites Science and Technology, 2018, 163, 63-70.	3.8	11
72	Sulfonated Copper Phthalocyanine/Sulfonated Polysulfone Composite Membrane for Ionic Polymer Actuators with High Power Density and Fast Response Time. ACS Applied Materials & Interfaces, 2017, 9, 29063-29070.	4.0	9

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73	Foaming of recycled crosslinked polyethylenes via supercritical decrosslinking reaction. Journal of Applied Polymer Science, 2012, 126, E21.	1.3	8
74	Shaping micro-clusters via inverse jamming and topographic close-packing of microbombs. Nature Communications, 2017, 8, 721.	5.8	8
75	Evolution of Ionâ€“Ion Interactions and Structures in Smectic Ionic Liquid Crystals. Journal of Physical Chemistry C, 2019, 123, 20547-20557.	1.5	8
76	Electromagnetic Interference Shielding: 2D MXenes for Electromagnetic Shielding: A Review (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.8	8
77	Thermal Annealing Effects on the Physical Properties of Styrenic Pentablock Ionomers and Their Electromechanical Responses. Journal of Nanoscience and Nanotechnology, 2013, 13, 3606-3610.	0.9	7
78	Mechanical, dielectric, and electromechanical properties of silicone dielectric elastomer actuators. Journal of Applied Polymer Science, 2014, 131, .	1.3	7
79	Core-shell architecture of Ni-Co MOF wrapped by a heterogeneous FeBTC@PPy layer for high-performance EMI shielding. Synthetic Metals, 2021, 281, 116929.	2.1	7
80	Enhanced Electrical Properties of PVDF-TrFE Nanocomposite for Actuator Application. Key Engineering Materials, 0, 605, 335-339.	0.4	5
81	UV-curable antibacterial ionic polysilsesquioxanes: Structure-property relationships investigating the effect of various cations and anions. European Polymer Journal, 2017, 95, 323-334.	2.6	5
82	Electroactive nanostructured polymer actuators fabricated using sulfonated styrenic pentablock copolymer/montmorillonite/ionic liquid nanocomposite membranes. Japanese Journal of Applied Physics, 2014, 53, 08NC03.	0.8	3
83	Binary hybrid filler composite formulations of surface modified Feâ€“Siâ€“Al alloys for multifunctional EMI shielding and thermal conduction. Materials Chemistry and Physics, 2022, 284, 126024.	2.0	3
84	Hybrid Ionogel Electrolytes Derived from Polyhedral Oligomeric Silsesquioxane for Lithium Ion Batteries. Journal of Nanoscience and Nanotechnology, 2017, 17, 3101-3104.	0.9	2
85	Liquid Crystals: Facilitated Ion Transport in Smectic Ordered Ionic Liquid Crystals (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock 1	11.1	1
86	Polyethylene Glycol-Functionalized Siloxane Hybrid Gel Polymer Electrolytes for Lithium Ion Batteries. Journal of Nanoscience and Nanotechnology, 2017, 17, 3016-3020.	0.9	1
87	Electromagnetic Interference Shielding Using MXenes and Their Composites. , 2019, , 399-416.		1
88	Electromechanical Properties of P(VDF-TrFE)/CNT and P(VDF-TrFE)/Gr Composites. Molecular Crystals and Liquid Crystals, 2012, 566, 141-146.	0.4	0
89	Electromechanical Strain Responses of SEBS/CB and SEBS/SWCNT Composites. Molecular Crystals and Liquid Crystals, 2012, 566, 135-140.	0.4	0
90	Reducing the environmental load of triacetyl cellulose film production using wood pulp. Journal of Applied Polymer Science, 2015, 132, .	1.3	0