

Chong Min Koo

List of Publications by Year in descending order

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90
papers

10,841
citations

81743

39
h-index

49773

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

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19	Sulfur doped graphene/polystyrene nanocomposites for electromagnetic interference shielding. <i>Composite Structures</i> , 2015, 133, 1267-1275.	3.1	121
20	Nafion-stabilized two-dimensional transition metal carbide (Ti ₃ C ₂ T _x MXene) as a high-performance electrochemical sensor for neurotransmitter. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 79, 338-344.	2.9	117
21	Density-tunable lightweight polymer composites with dual-functional ability of efficient EMI shielding and heat dissipation. <i>Nanoscale</i> , 2017, 9, 13432-13440.	2.8	112
22	Sulfur-doped graphene laminates for EMI shielding applications. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9802-9810.	2.7	106
23	Binder-less chemical grafting of SiO ₂ nanoparticles onto polyethylene separators for lithium-ion batteries. <i>Journal of Membrane Science</i> , 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. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 716-724.	4.0	82
25	Hybrid ionogel electrolytes for high temperature lithium batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2226-2233.	5.2	72
26	Towards Watt-scale hydroelectric energy harvesting by Ti ₃ C ₂ T _x -based transpiration-driven electrokinetic power generators. <i>Energy and Environmental Science</i> , 2022, 15, 123-135.	15.6	70
27	Low percolation 3D Cu and Ag shell network composites for EMI shielding and thermal conduction. <i>Composites Science and Technology</i> , 2019, 182, 107778.	3.8	67
28	Precision Interface Engineering of an Atomic Layer in Bulk Bi ₂ Te ₃ Alloys for High Thermoelectric Performance. <i>ACS Nano</i> , 2019, 13, 7146-7154.	7.3	66
29	Mechanism and Kinetics of Oxidation Reaction of Aqueous Ti ₃ C ₂ T _x Suspensions at Different pHs and Temperatures. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 22855-22865.	4.0	64
30	Lithium Dendrite Suppression with UV-Curable Polysilsesquioxane Separator Binders. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12852-12858.	4.0	63
31	Polymer-Laminated Ti ₃ C ₂ T _x MXene Electrodes for Transparent and Flexible Field-Driven Electronics. <i>ACS Nano</i> , 2021, 15, 8940-8952.	7.3	63
32	Novel polysilsesquioxane hybrid polymer electrolytes for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1277-1283.	5.2	58
33	Electric Actuation of Nanostructured Thermoplastic Elastomer Gels with Ultralarge Electrostriction Coefficients. <i>Advanced Functional Materials</i> , 2011, 21, 3242-3249.	7.8	55
34	Synthesis of Multifunctional Electrically Tunable Fluorine-Doped Reduced Graphene Oxide at Low Temperatures. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 24179-24189.	4.0	50
35	FeSiAl/metal core shell hybrid composite with high-performance electromagnetic interference shielding. <i>Composites Science and Technology</i> , 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. <i>Journal of Materials Chemistry C</i> , 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. <i>Composites Science and Technology</i> , 2017, 144, 57-62.	3.8	47
38	Multidimensional Ti ₃ C ₂ T _x MXene Architectures via Interfacial Electrochemical Self-Assembly. <i>ACS Nano</i> , 2021, 15, 10058-10066.	7.3	46
39	Novel sulfonated styrenic pentablock copolymer/silicate nanocomposite membranes with controlled ion channels and their IPMC transducers. <i>Sensors and Actuators B: Chemical</i> , 2012, 162, 369-376.	4.0	42
40	Highly enhanced electromechanical properties of PVDF-TrFE/SWCNT nanocomposites using an efficient polymer compatibilizer. <i>Composites Science and Technology</i> , 2018, 157, 21-29.	3.8	41
41	Enhanced absorption of electromagnetic waves in Ti ₃ C ₂ T _x MXene films with segregated polymer inclusions. <i>Composites Science and Technology</i> , 2021, 213, 108878.	3.8	41
42	Facilitated Ion Transport in Smectic Ordered Ionic Liquid Crystals. <i>Advanced Materials</i> , 2016, 28, 9301-9307.	11.1	36
43	Engineering Aggregation-Resistant MXene Nanosheets As Highly Conductive and Stable Inks for All-Printed Electronics. <i>Advanced Functional Materials</i> , 2021, 31, 2010897.	7.8	35
44	Lithium ion capacitors fabricated with polyethylene oxide-functionalized polysilsesquioxane hybrid ionogel electrolytes. <i>Electrochimica Acta</i> , 2016, 188, 582-588.	2.6	34
45	Segregated reduced graphene oxide polymer composite as a high performance electromagnetic interference shield. <i>Research on Chemical Intermediates</i> , 2018, 44, 4707-4719.	1.3	33
46	High-voltage ionic liquid electrolytes based on ether functionalized pyrrolidinium for electric double-layer capacitors. <i>Electrochimica Acta</i> , 2016, 222, 1847-1852.	2.6	31
47	Multifunctional Mesoporous Ionic Gels and Scaffolds Derived from Polyhedral Oligomeric Silsesquioxanes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3616-3623.	4.0	31
48	Hybrid ionogel electrolytes with POSS epoxy networks for high temperature lithium ion capacitors. <i>Solid State Ionics</i> , 2017, 309, 27-32.	1.3	31
49	Alternating-Current MXene Polymer Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2020, 30, 2001224.	7.8	30
50	Enhanced stability of Ti ₃ C ₂ T _x MXene enabled by continuous ZIF-8 coating. <i>Carbon</i> , 2022, 191, 593-599.	5.4	30
51	Reduction of Electrochemically Exfoliated Graphene Films for High-Performance Electromagnetic Interference Shielding. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 15827-15836.	4.0	27
52	Metal-Ion-Intercalated MXene Nanosheet Films for NH ₃ Gas Detection. <i>ACS Applied Nano Materials</i> , 2021, 4, 14249-14257.	2.4	26
53	Ionic polymer actuator based on anion-conducting methylated ether-linked polybenzimidazole. <i>Sensors and Actuators B: Chemical</i> , 2015, 214, 43-49.	4.0	24
54	Flexible and Transparent Electrode of Hybrid Ti ₃ C ₂ T _x MXene-Silver Nanowires for High-Performance Quantum Dot Light-Emitting Diodes. <i>ACS Nano</i> , 2022, 16, 9203-9213.	7.3	22

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