Karim Khan

List of Publications by Year
in descending order

88 papers	5,092 citations	136740 32 h-index	91712 69 g-index
91 all docs	91 docs citations	91 times ranked	4987 citing authors

#	Article	IF	Citations
1	Are family medicine residents trained to counsel patients on physical activity? The Canadian experience and a call to action. Postgraduate Medical Journal, 2023, 99, 207-210.	0.9	2
2	Two-dimensional selenium and its composites for device applications. Nano Research, 2022, 15, 104-122.	5.8	26
3	Two-dimensional materials toward Terahertz optoelectronic device applications. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2022, 51, 100473.	5.6	36
4	Recent Advances in Oxidation Stable Chemistry of 2D MXenes. Advanced Materials, 2022, 34, e2107554.	11.1	163
5	Recent development in emerging phosphorene based novel materials: Progress, challenges, prospects and their fascinating sensing applications. Progress in Solid State Chemistry, 2022, 65, 100336.	3.9	18
6	Novel Porphyrinâ€“Perylene diimide for ultrafast high-performance resistive memory devices. Organic Electronics, 2022, 103, 106453.	1.4	7
7	The rise of 2D materials/ferroelectrics for next generation photonics and optoelectronics devices. APL Materials, 2022, 10, .	2.2	23
8	Mid-Infrared Optoelectronic Devices Based on Two-Dimensional Materials beyond Graphene: Status and Trends. Nanomaterials, 2022, 12, 2260.	1.9	16
9	Confinement in two-dimensional materials: Major advances and challenges in the emerging renewable energy conversion and other applications. Progress in Solid State Chemistry, 2021, 61, 100294.	3.9	24
10	Recent progress, challenges, and prospects in emerging group-VIA Xenes: synthesis, properties and novel applications. Nanoscale, 2021, 13, 510-552.	2.8	23
11	Sensing Applications of Atomically Thin Group IV Carbon Siblings Xenes: Progress, Challenges, and Prospects. Advanced Functional Materials, 2021, 31, 2005957.	7.8	37
12	Broadband Nonlinear Photonics in Fewâ€Layer Borophene. Small, 2021, 17, e2006891.	5.2	42
13	Evolution of low-dimensional material-based field-effect transistors. Nanoscale, 2021, 13, 5162-5186.	2.8	39
14	Novel synthesis, properties and applications of emerging group VA two-dimensional monoelemental materials (2D-Xenes). Materials Chemistry Frontiers, 2021, 5, 6333-6391.	3.2	18
15	Nonlinear optical properties and ultrafast photonics of 2D BP/Ti3C2 heterostructures. Optical Materials, 2021, 112, 110809.	1.7	25
16	Nanoscale CuTe electrocatalyst immobilized at conductor surface for remarkable hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 18729-18739.	3.8	27
17	A first principle study: Effect of tin substitution on magnetic properties of bismuth ferrite nanoparticles prepared by sol-gel synthesis method. Inorganic Chemistry Communication, 2021, 127, 108483.	1.8	16
18	Advanced Devices for Tumor Diagnosis and Therapy. Small, 2021, 17, 2100003.	5.2	14

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19	Introduction, production, characterization and applications of defects in graphene. Journal of Materials Science: Materials in Electronics, 2021, 32, 19991-20030.	1.1	15
20	Structural, electronic, optical and thermoelectric analysis of perovskites XRuO3 (X=Ca, Sr). Physica B: Condensed Matter, 2021, 614, 412962.	1.3	8
21	Application of MXenes in Perovskite Solar Cells: A Short Review. Nanomaterials, 2021, 11, 2151.	1.9	29
22	Novel emerging graphdiyne based two dimensional materials: Synthesis, properties and renewable energy applications. Nano Today, 2021, 39, 101207.	6.2	49
23	The Silk, Versatile Material for Biological, Optical, and Electronic Fields: Review. Global Journal of Researches in Engineering, 2021, , 1-30.	0.1	1
24	Graphene foam â€“ polymer based electronic skin for flexible tactile sensor. Sensors and Actuators A: Physical, 2021, 327, 112697.	2.0	26
25	Navigating recent advances in monoelemental materials (Xenes)-fundamental to biomedical applications. Progress in Solid State Chemistry, 2021, 63, 100326.	3.9	20
26	The role of nitrogen in transition-metal nitrides in electrochemical water splitting. Chem Catalysis, 2021, 1, 802-854.	2.9	53
27	Mixed-dimensional niobium disulfide-graphene foam heterostructures as an efficient catalyst for hydrogen production. International Journal of Hydrogen Energy, 2021, 46, 33679-33688.	3.8	10
28	A novel MnOâ€“CrN nanocomposite based non-enzymatic hydrogen peroxide sensor. RSC Advances, 2021, 11, 19316-19322.	1.7	18
29	Application of two-dimensional materials in perovskite solar cells: recent progress, challenges, and prospective solutions. Journal of Materials Chemistry C, 2021, 9, 14065-14092.	2.7	24
30	Recent development in graphdiyne and its derivative materials for novel biomedical applications. Journal of Materials Chemistry B, 2021, 9, 9461-9484.	2.9	19
31	New physical insight into crystal structure, luminescence and optical properties of YPO4:Dy3+âˆ—Eu3+âˆ—Tb3+ single-phase white-light-emitting phosphors. Journal of Alloys and Compounds, 2020, 817, 152687.	2.8	53
32	Going green with batteries and supercapacitor: Two dimensional materials and their nanocomposites based energy storage applications. Progress in Solid State Chemistry, 2020, 58, 100254.	3.9	87
33	Recent developments in emerging two-dimensional materials and their applications. Journal of Materials Chemistry C, 2020, 8, 387-440.	2.7	501
34	Recent advances of low-dimensional materials in Mid- and Far-infrared photonics. Applied Materials Today, 2020, 21, 100800.	2.3	27
35	High performance complementary WS₂ devices with hybrid Gr/Ni contacts. Nanoscale, 2020, 12, 21280-21290.	2.8	27
36	Progress towards High-Efficiency and Stable Tin-Based Perovskite Solar Cells. Energies, 2020, 13, 5092.	1.6	35

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37	Recent Progress, Challenges, and Prospects in Two-Dimensional Photo-Catalyst Materials and Environmental Remediation. Nano-Micro Letters, 2020, 12, 167.	14.4	57
38	Synthesis, properties and novel electrocatalytic applications of the 2D-borophene Xenes. Progress in Solid State Chemistry, 2020, 59, 100283.	3.9	65
39	Enhanced electrical and broad spectral (UV-Vis-NIR) photodetection in a Gr/ReSe₂/Gr heterojunction. Dalton Transactions, 2020, 49, 10017-10027.	1.6	36
40	Two dimensional nanomaterials-enabled smart light regulation technologies: Recent advances and developments. Optik, 2020, 220, 165191.	1.4	18
41	Recent advances in doping engineering of black phosphorus. Journal of Materials Chemistry A, 2020, 8, 5421-5441.	5.2	93
42	Facile synthesis of Î±-Fe2O3/Nb2O5 heterostructure for advanced Li-Ion batteries. Journal of Alloys and Compounds, 2020, 837, 155294.	2.8	33
43	Two-Dimensional Tellurium: Progress, Challenges, and Prospects. Nano-Micro Letters, 2020, 12, 99.	14.4	139
44	Unusual magnetotransport properties in graphene fibers. Physical Chemistry Chemical Physics, 2020, 22, 25712-25719.	1.3	3
45	High-capability micro-optical buffer based on coupled hexagonal cavity in photonic crystal waveguide. Applied Nanoscience (Switzerland), 2019, 9, 1963-1970.	1.6	20
46	Radiation-direction steerable nanoantennae. SN Applied Sciences, 2019, 1, 1.	1.5	9
47	Enhancement of mechanical and electrical properties forin-situcompatibilization of immiscible polypropylene/polystyrene blends. Materials Research Express, 2019, 6, 105301.	0.8	11
48	Recent Advances in Emerging 2D Materialâ€Based Gas Sensors: Potential in Disease Diagnosis. Advanced Materials Interfaces, 2019, 6, 1901329.	1.9	169
49	A comprehensive review on synthesis of pristine and doped inorganic room temperature stable mayenite electride, [Ca24Al28O64]4+(eâ^)4 and its applications as a catalyst. Progress in Solid State Chemistry, 2019, 54, 1-19.	3.9	63
50	Slow light with high normalized delay-bandwidth product in low-dispersion photonic-crystal coupled-cavity waveguide. Optics Communications, 2019, 439, 181-186.	1.0	25
51	Synthesis and characterization of transition metals doped CuO nanostructure and their application in hybrid bulk heterojunction solar cells. SN Applied Sciences, 2019, 1, 1.	1.5	42
52	Nickelâ€Based Transition Metal Nitride Electrocatalysts for the Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 3941-3954.	3.6	150
53	New physical insight in structural and electronic properties of InSb nano-sheet being rolled up into single-wall nanotubes. Applied Surface Science, 2019, 487, 550-557.	3.1	9
54	Structural and Magnetoresistance Properties of Transfer-Free Amorphous Carbon Thin Films. Crystals, 2019, 9, 124.	1.0	10

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55	Controlled synthesis of ammonium manganese tri-fluoride nanoparticles with enhanced electrochemical performance. Materials Research Express, 2019, 6, 075074.	0.8	27
56	Single step synthesis of highly conductive room-temperature stable cation-substituted mayenite electride target and thin film. Scientific Reports, 2019, 9, 4967.	1.6	21
57	Recent advances in two-dimensional materials and their nanocomposites in sustainable energy conversion applications. Nanoscale, 2019, 11, 21622-21678.	2.8	201
58	Novel Two-Dimensional Carbonâ€“Chromium Nitride-Based Composite as an Electrocatalyst for Oxygen Reduction Reaction. Frontiers in Chemistry, 2019, 7, 738.	1.8	34
59	Fe-doped mayenite electride composite with 2D reduced Graphene Oxide: As a non-platinum based, highly durable electrocatalyst for Oxygen Reduction Reaction. Scientific Reports, 2019, 9, 19809.	1.6	38
60	Five-Line Photonic Crystal Waveguide for Optical Buffering and Data Interconnection of Picosecond Pulse. Journal of Lightwave Technology, 2019, 37, 788-798.	2.7	28
61	Graphene oxide coated graphene foam based chemical sensor. Materials Letters, 2019, 235, 66-70.	1.3	41
62	Facile Synthesis of Mayenite Electride Nanoparticles Encapsulated in Graphitic Shells Like Carbon Nano Onions: Non-noble-metal Electrocatalysts for Oxygen Reduction Reaction (ORR). Frontiers in Chemistry, 2019, 7, 934.	1.8	27
63	High-speed amplitude modulator with a high modulation index based on a plasmonic resonant tunable metasurface. Applied Optics, 2019, 58, 2687.	0.9	20
64	Facile synthesis of a cationic-doped [Ca₂₄Al₂₈O₆₄]⁴⁺(4e^{â^’}) composite via a rapid citrate solâ€“gel method. Dalton Transactions, 2018, 47, 3819-3830.	1.6	48
65	Binary Strengthening and Toughening of MXene/Cellulose Nanofiber Composite Paper with Nacre-Inspired Structure and Superior Electromagnetic Interference Shielding Properties. ACS Nano, 2018, 12, 4583-4593.	7.3	942
66	Slow-light transmission with high group index and large normalized delay bandwidth product through successive defect rods on intrinsic photonic crystal waveguide. Optics Communications, 2018, 418, 73-79.	1.0	25
67	Theoretical and Cold-Test Investigation of a Four-Port High-Frequency System for a 0.14-THz Dual-Sheet-Beam Backward-Wave Oscillator. IEEE Transactions on Electron Devices, 2018, 65, 5068-5074.	1.6	7
68	Electrochemical Mechanism and Structure Simulation of 2D Lithiumâ€ion Battery. Advanced Theory and Simulations, 2018, 1, 1800023.	1.3	20
69	Facile metal-free reduction-based synthesis of pristine and cation-doped conductive mayenite. RSC Advances, 2018, 8, 24276-24285.	1.7	43
70	Role of Ni concentration on structural and magnetic properties of inverse spinel Ferrite. Materials Research Bulletin, 2018, 107, 60-65.	2.7	25
71	Ultra-wideband slow light transmission with high normalized delay bandwidth product in W3 photonic crystal waveguide. Superlattices and Microstructures, 2018, 121, 45-54.	1.4	17
72	Facile synthesis of tin-doped mayenite electride composite as a non-noble metal durable electrocatalyst for oxygen reduction reaction (ORR). Dalton Transactions, 2018, 47, 13498-13506.	1.6	56

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73	Synthesis and low temperature magnetic measurements of polycrystalline Gadolinium nanowires. Materials Letters, 2018, 228, 266-269.	1.3	11
74	Ultra-high group index slow light with optical buffering performance in photonic crystal waveguide coupled with cavity. , 2018, , .		3
75	Direct fabrication of C12A7 electride target and room temperature deposition of thin films with low work function. Materials Research Express, 2017, 4, 036408.	0.8	32
76	Tunable narrowband antireflection optical filter with a metasurface. Photonics Research, 2017, 5, 500.	3.4	41
77	Plasmonic Spectral Splitting in Ring/Rod Metasurface. Nanomaterials, 2017, 7, 397.	1.9	27
78	Low temperature synthesis of nano porous 12CaOâˆ™7Al2O3 powder by hydrothermal method. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 1201-1205.	0.4	32
79	A subgap density of states modeling for the transient characteristics in oxide-based thin-film transistors. Microelectronics Reliability, 2016, 60, 67-69.	0.9	9
80	Polarimetry based partial least square classification of ex vivo healthy and basal cell carcinoma human skin tissues. Photodiagnosis and Photodynamic Therapy, 2016, 14, 134-141.	1.3	23
81	Physical activity prescription: a critical opportunity to address a modifiable risk factor for the prevention and management of chronic disease: a position statement by the Canadian Academy of Sport and Exercise Medicine: TableÂ1. British Journal of Sports Medicine, 2016, 50, 1109-1114.	3.1	161
82	A Direct Method to Extract Transient Sub-Gap Density of State (DOS) Based on Dual Gate Pulse Spectroscopy. Scientific Reports, 2016, 6, 24096.	1.6	14
83	Biofouling control in a membrane filtration system by a newly isolated novel quorum quenching bacterium, Bacillus methylotrophicus sp. WY. RSC Advances, 2016, 6, 28895-28903.	1.7	20
84	Ex vivocharacterization of normal and adenocarcinoma colon samples by Mueller matrix polarimetry. Journal of Biomedical Optics, 2015, 20, 056012.	1.4	72
85	Structural characteristics of Ni+-implanted AlN thin film. Surface Topography: Metrology and Properties, 2014, 2, 035007.	0.9	10
86	A fuzzy c-means bi-sonar-based Metaheuristic Optimization Algorithm. International Journal of Interactive Multimedia and Artificial Intelligence, 2012, 1, 26.	1.0	19
87	Biochemical Basis of Flour Properties in Bread Wheats. I. Effects of Variation in the Quantity and Size Distribution of Polymeric Protein. Journal of Cereal Science, 1993, 18, 23-41.	1.8	474
88	Two-dimensional Metal Organic Frameworks for photonic applications. Optical Materials Express, 0, , .	1.6	9