

Kim Kisslinger

List of Publications by Year in descending order

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102
papers

3,798
citations

172457

29
h-index

133252

59
g-index

105
all docs

105
docs citations

105
times ranked

6078
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly selective plasma-activated copper catalysts for carbon dioxide reduction to ethylene. Nature Communications, 2016, 7, 12123.	12.8	896
2	Simultaneously Dual Modification of Ni-Rich Layered Oxide Cathode for High-Energy Lithium-Ion Batteries. Advanced Functional Materials, 2019, 29, 1808825.	14.9	430
3	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. Angewandte Chemie - International Edition, 2017, 56, 11394-11398.	13.8	180
4	Ultrahigh-Rate and Long-Life Zinc-Metal Anodes Enabled by Self-Accelerated Cation Migration. Advanced Energy Materials, 2021, 11, 2100982.	19.5	131
5	Large-Area Growth of Turbostratic Graphene on Ni(111) via Physical Vapor Deposition. Scientific Reports, 2016, 6, 19804.	3.3	103
6	LaTiO ₃ /KTaO ₃ interfaces: A new two-dimensional electron gas system. APL Materials, 2015, 3, .	5.1	94
7	Resolving atomic-scale phase transformation and oxygen loss mechanism in ultrahigh-nickel layered cathodes for cobalt-free lithium-ion batteries. Matter, 2021, 4, 2013-2026.	10.0	69
8	Directed Self-Assembly of Block Copolymers for High Breakdown Strength Polymer Film Capacitors. ACS Applied Materials & Interfaces, 2016, 8, 7966-7976.	8.0	65
9	Enhancing Chemical Stability and Suppressing Ion Migration in CH ₃ NH ₃ Pb ₃ Perovskite Solar Cells via Direct Backbone Attachment of Polyesters on Grain Boundaries. Chemistry of Materials, 2020, 32, 5104-5117.	6.7	64
10	Atomic Structure Evolution of Pt-Co Binary Catalysts: Single Metal Sites versus Intermetallic Nanocrystals. Advanced Materials, 2021, 33, e2106371.	21.0	62
11	Hierarchical nickel valence gradient stabilizes high-nickel content layered cathode materials. Nature Communications, 2021, 12, 2350.	12.8	59
12	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. Angewandte Chemie, 2017, 129, 11552-11556.	2.0	58
13	Image quality and pattern transfer in directed self assembly with block-selective atomic layer deposition. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, .	1.2	52
14	Three-dimensional electroactive ZnO nanomesh directly derived from hierarchically self-assembled block copolymer thin films. Nanoscale, 2019, 11, 9533-9546.	5.6	51
15	Light-matter coupling in large-area van der Waals superlattices. Nature Nanotechnology, 2022, 17, 182-189.	31.5	49
16	Evaluating the accuracy of common γ -Al ₂ O ₃ structure models by selected area electron diffraction from high-quality crystalline γ -Al ₂ O ₃ . Acta Materialia, 2020, 182, 257-266.	7.9	48
17	High-Quality AZO/Au/AZO Sandwich Film with Ultralow Optical Loss and Resistivity for Transparent Flexible Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 16160-16168.	8.0	45
18	Resilient three-dimensional ordered architectures assembled from nanoparticles by DNA. Science Advances, 2021, 7, .	10.3	45

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19	Revisiting the "In-clustering" question in InGaN through the use of aberration-corrected electron microscopy below the knock-on threshold. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	43
20	Atomic-Scale Observation of O1 Faulted Phase-Induced Deactivation of LiNiO ₂ at High Voltage. <i>Nano Letters</i> , 2021, 21, 3657-3663.	9.1	43
21	Operando Grazing Incidence Small-Angle X-ray Scattering/X-ray Diffraction of Model Ordered Mesoporous Lithium-Ion Battery Anodes. <i>ACS Nano</i> , 2017, 11, 1443-1454.	14.6	42
22	Magnetic Hydrogels from Alkyne/Cobalt Carbonyl-Functionalized ABA Triblock Copolymers. <i>Journal of the American Chemical Society</i> , 2016, 138, 4616-4625.	13.7	40
23	Microstructure and microchemistry of flash sintered K _{0.5} Na _{0.5} NbO ₃ . <i>Journal of the Ceramic Society of Japan</i> , 2016, 124, 321-328.	1.1	39
24	Ultrahigh Elastic Strain Energy Storage in Metal-Oxide-Infiltrated Patterned Hybrid Polymer Nanocomposites. <i>Nano Letters</i> , 2017, 17, 7416-7423.	9.1	38
25	Chemomechanically Stable Ultrahigh-Ni Single-Crystalline Cathodes with Improved Oxygen Retention and Delayed Phase Degradations. <i>Nano Letters</i> , 2021, 21, 9797-9804.	9.1	38
26	Direct fabrication of high aspect-ratio metal oxide nanopatterns via sequential infiltration synthesis in lithographically defined SU-8 templates. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, 06F201.	1.2	37
27	Ordering Pathway of Block Copolymers under Dynamic Thermal Gradients Studied by <i>in Situ</i> GISAXS. <i>Macromolecules</i> , 2016, 49, 8633-8642.	4.8	34
28	Silicate deposition during decomposition of cyanobacteria may promote export of picophytoplankton to the deep ocean. <i>Nature Communications</i> , 2014, 5, 4143.	12.8	33
29	Electrical and structural properties of ZnO synthesized via infiltration of lithographically defined polymer templates. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	31
30	Interfaces between hexagonal and cubic oxides and their structure alternatives. <i>Nature Communications</i> , 2017, 8, 1474.	12.8	31
31	Microscopic relaxation channels in materials for superconducting qubits. <i>Communications Materials</i> , 2021, 2, .	6.9	31
32	Advancing next generation nanolithography with infiltration synthesis of hybrid nanocomposite resists. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8803-8812.	5.5	30
33	Designing Nanoplatelet Alloy/Nafion Catalytic Interface for Optimization of PEMFCs: Performance, Durability, and CO Resistance. <i>ACS Catalysis</i> , 2019, 9, 1446-1456.	11.2	29
34	Experimental Study of the Detection Limit in Dual-Gate Biosensors Using Ultrathin Silicon Transistors. <i>ACS Nano</i> , 2017, 11, 7142-7147.	14.6	28
35	Suppression of Carbon Monoxide Poisoning in Proton Exchange Membrane Fuel Cells via Gold Nanoparticle/Titania Ultrathin Film Heterogeneous Catalysts. <i>ACS Applied Energy Materials</i> , 2019, 2, 3479-3487.	5.1	28
36	Bi-continuous pattern formation in thin films <i>via</i> solid-state interfacial dealloying studied by multimodal characterization. <i>Materials Horizons</i> , 2019, 6, 1991-2002.	12.2	28

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37	Multi-electron transfer enabled by topotactic reaction in magnetite. Nature Communications, 2019, 10, 1972.	12.8	28
38	Blue emission of Eu ²⁺ -doped translucent alumina. Journal of Luminescence, 2015, 168, 297-303.	3.1	25
39	Effects of Residual Solvent Molecules Facilitating the Infiltration Synthesis of ZnO in a Nonreactive Polymer. Chemistry of Materials, 2017, 29, 4535-4545.	6.7	24
40	Dissolution of Pt during Oxygen Reduction Reaction Produces Pt Nanoparticles. Analytical Chemistry, 2017, 89, 12618-12621.	6.5	24
41	Enhanced Hybridization and Nanopatterning via Heated Liquid-Phase Infiltration into Self-Assembled Block Copolymer Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 1444-1453.	8.0	23
42	Hybrid Ligand Exchange of Cu(In,Ga)S ₂ Nanoparticles for Carbon Impurity Removal in Solution-Processed Photovoltaics. Chemistry of Materials, 2020, 32, 5091-5103.	6.7	23
43	Applying Configurational Complexity to the 2D Ruddlesden-Popper Crystal Structure. ACS Nano, 2020, 14, 13030-13037.	14.6	21
44	Comparison of Hafnium Dioxide and Zirconium Dioxide Grown by Plasma-Enhanced Atomic Layer Deposition for the Application of Electronic Materials. Crystals, 2020, 10, 136.	2.2	21
45	Photoelectrochemical water splitting with a SrTiO ₃ :Nb/SrTiO ₃ homojunction structure. Physical Chemistry Chemical Physics, 2017, 19, 2760-2767.	2.8	20
46	Environmentally Friendly Zr-Based Conversion Nanocoatings for Corrosion Inhibition of Metal Surfaces Evaluated by Multimodal X-ray Analysis. ACS Applied Nano Materials, 2019, 2, 1920-1929.	5.0	20
47	Effect of Molecular Weight and Layer Thickness on the Dielectric Breakdown Strength of Neat and Homopolymer Swollen Lamellar Block Copolymer Films. ACS Applied Polymer Materials, 2020, 2, 3072-3083.	4.4	20
48	Green phosphorescence of zinc sulfide optical ceramics. Optical Materials Express, 2014, 4, 1140.	3.0	19
49	Transparent Y ₃ Al ₅ O ₁₂ :Li,Ce Ceramics for Thermal Neutron Detection. Journal of the American Ceramic Society. 2013, 96, 1067-1069.	3.8	18
50	Evolution of Wurtzite ZnO Films on Cubic MgO (001) Substrates: A Structural, Optical, and Electronic Investigation of the Misfit Structures. ACS Applied Materials & Interfaces, 2014, 6, 13823-13832.	8.0	18
51	Ultralow Dark Currents in Avalanche Amorphous Selenium Photodetectors Using Solution-Processed Quantum Dot Blocking Layer. ACS Photonics, 2020, 7, 1367-1374.	6.6	18
52	Approaching the Practical Conductivity Limits of Aerosol Jet Printed Silver. ACS Applied Materials & Interfaces, 2020, 12, 29684-29691.	8.0	16
53	Wurtzite ZnO (001) films grown on cubic MgO (001) with bulk-like opto-electronic properties. Applied Physics Letters, 2011, 99, 141917.	3.3	15
54	Emergent flat band electronic structure in a VSe ₂ /Bi ₂ Se ₃ heterostructure. Communications Materials, 2021, 2, .	6.9	15

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55	Phase Behavior of Alkyne-Functionalized Styrenic Block Copolymer/Cobalt Carbonyl Adducts and <i>in Situ</i> Formation of Magnetic Nanoparticles by Thermolysis. <i>Macromolecules</i> , 2016, 49, 853-865.	4.8	14
56	Large Metallic Vanadium Disulfide Ultrathin Flakes for Spintronic Circuits and Quantum Computing Devices. <i>ACS Applied Nano Materials</i> , 2019, 2, 3684-3694.	5.0	14
57	Growth of epitaxial CdTe thin films on amorphous substrates using single crystal graphene buffer. <i>Carbon</i> , 2019, 144, 519-524.	10.3	14
58	Resolving Triblock Terpolymer Morphologies by Vapor-Phase Infiltration. <i>Chemistry of Materials</i> , 2020, 32, 5309-5316.	6.7	14
59	Tunable surface acoustic wave device using semiconducting MgZnO and piezoelectric NiZnO dual-layer structure on glass. <i>Smart Materials and Structures</i> , 2018, 27, 085025.	3.5	12
60	Light-Activated Hybrid Nanocomposite Film for Water and Oxygen Sensing. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 31745-31754.	8.0	12
61	Water as the Solvent in the Stober Process for Forming Ultrafine Silica Shells on Magnetite Nanoparticles. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15578-15584.	6.7	12
62	Nano-engineering the material structure of preferentially oriented nano-graphitic carbon for making high-performance electrochemical micro-sensors. <i>Scientific Reports</i> , 2020, 10, 9444.	3.3	11
63	Oriental domains in metalorganic chemical vapor deposited CdTe(111) film on cube-textured Ni. <i>Thin Solid Films</i> , 2013, 531, 217-221.	1.8	10
64	Origin and Suppression of Beam Damage-Induced Oxygen-K Edge Artifact from γ -Al ₂ O ₃ using Cryo-EELS. <i>Ultramicroscopy</i> , 2020, 219, 113127.	1.9	10
65	Fluorinated Iron and Cobalt Phthalocyanine Nanowire Chemiresistors for Environmental Gas Monitoring at Parts-per-Billion Levels. <i>ACS Applied Nano Materials</i> , 2022, 5, 4688-4699.	5.0	10
66	Solution Processed Fabrication of SeTe Alloy Thin Films for Application in PV Devices. <i>ACS Applied Energy Materials</i> , 2022, 5, 3275-3281.	5.1	10
67	Radiation damage by light- and heavy-ion bombardment of single-crystal LiNbO ₃ . <i>Optical Materials Express</i> , 2015, 5, 1071.	3.0	9
68	Design nanoporous metal thin films <i>via</i> solid state interfacial dealloying. <i>Nanoscale</i> , 2021, 13, 17725-17736.	5.6	9
69	In Situ Growth of Crystalline and Polymer-Incorporated Amorphous ZIFs in Polybenzimidazole Achieving Hierarchical Nanostructures for Carbon Capture. <i>Small</i> , 2022, 18, e2201982.	10.0	9
70	Highly Active and Stable Carbon Nanosheets Supported Iron Oxide for Fischer-Tropsch to Olefins Synthesis. <i>ChemCatChem</i> , 2019, 11, 1625-1632.	3.7	8
71	Conformal Coating of Freestanding Particles by Vapor-Phase Infiltration. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001323.	3.7	8
72	Reusing Face Covering Masks: Probing the Impact of Heat Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13545-13558.	6.7	8

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73	Enabling fine-grain free 2-micron thick CIGSe/CIGSe film fabrication via a non-hydrazine based solution processing route. <i>Materials Advances</i> , 2022, 3, 3293-3302.	5.4	8
74	Interface structures of inclined ZnO thin film on (001)-MgO substrate with bulk-like optical properties. <i>Applied Surface Science</i> , 2020, 509, 144781.	6.1	7
75	Unraveling the Formation Mechanism of a Hybrid Zr-Based Chemical Conversion Coating with Organic and Copper Compounds for Corrosion Inhibition. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 5518-5528.	8.0	7
76	Field-assisted sintering and phase transition of ZnS-CaLa ₂ S ₄ composite ceramics. <i>Journal of the European Ceramic Society</i> , 2017, 37, 4741-4749.	5.7	6
77	Templated Mesoporous Silica Outer Shell for Controlled Silver Release of a Magnetically Recoverable and Reusable Nanocomposite for Water Disinfection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47972-47986.	8.0	6
78	Dry heat sterilization as a method to recycle N95 respirator masks: The importance of fit. <i>PLoS ONE</i> , 2022, 17, e0257963.	2.5	6
79	Selective sequential infiltration synthesis of ZnO in the liquid crystalline phase of silicon-containing rod-coil block copolymers. <i>Nanoscale</i> , 2022, 14, 1807-1813.	5.6	6
80	Mechanisms of Interface Cleaning in Heterostructures Made from Polymer-Contaminated Graphene. <i>Small</i> , 2022, 18, e2201248.	10.0	6
81	Nanocomposite liposomes for pH-controlled porphyrin release into human prostate cancer cells. <i>RSC Advances</i> , 2020, 10, 17094-17100.	3.6	5
82	Solution Phase Growth and Ion Exchange in Microassemblies of Lead Chalcogenide Nanoparticles. <i>ACS Omega</i> , 2021, 6, 21350-21358.	3.5	5
83	Reduced Stochastic Resistive Switching in Organic-Inorganic Hybrid Memristors by Vapor Phase Infiltration. <i>Advanced Electronic Materials</i> , 2022, 8, .	5.1	5
84	Characterization of V-shaped Defects in 4H-SiC Homoepitaxial Layers. <i>Journal of Electronic Materials</i> , 2015, 44, 1293-1299.	2.2	4
85	Magnetically Recoverable and Reusable Titanium Dioxide Nanocomposite for Water Disinfection. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 943.	2.6	4
86	Characterization of Materials Used as Face Coverings for Respiratory Protection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47996-48008.	8.0	4
87	Electron-beam-evaporated thin films of hafnium dioxide for fabricating electronic devices. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, 042001.	1.2	3
88	Characterization of selective etching and patterning by sequential light- and heavy-ion irradiation of LiNbO ₃ . <i>Optical Materials</i> , 2015, 46, 1-5.	3.6	3
89	Interface and optical properties of Zn _{1-x} Mg _x O films with Mg content of more than 70% grown on the (110)-ZnO substrates. <i>AIP Advances</i> , 2021, 11, .	1.3	3
90	Thin-film synthesis of superconductor-on-insulator A15 vanadium silicide. <i>Scientific Reports</i> , 2021, 11, 2358.	3.3	3

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91	Exploring the Spatial Control of Topotactic Phase Transitions Using Vertically Oriented Epitaxial Interfaces. Nano-Micro Letters, 2022, 14, 2.	27.0	3
92	A method to determine fault vectors in 4H-SiC from stacking sequences observed on high resolution transmission electron microscopy images. Journal of Applied Physics, 2014, 116, 104905.	2.5	2
93	Stacking Fault Formation via 2D Nucleation in PVT Grown 4H-SiC. Materials Science Forum, 0, 821-823, 85-89.	0.3	2
94	Cathodoluminescence as an effective probe of carrier transport and deep level defects in droop-mitigating InGaN/GaN quantum well heterostructures. Applied Physics Express, 2019, 12, 034003.	2.4	2
95	Atomic Layer Deposition of Nanolayered Carbon Films. Journal of Carbon Research, 2021, 7, 67.	2.7	2
96	Electrically pumped epitaxially regrown GaSb-based type-II quantum well surface emitting lasers with buried high-index-contrast photonic crystal layer.. Physica Status Solidi - Rapid Research Letters, 0, , 2100425.	2.4	2
97	Fabrication of field-effect transistors with transfer-free nanostructured carbon as the semiconducting channel material. Nanotechnology, 2020, 31, 485203.	2.6	2
98	Pb ₂ Nanocrystal Growth by Atomic Layer Deposition from Pb(tmhd) ₂ and HI. Chemistry of Materials, 2022, 34, 2553-2561.	6.7	2
99	Characterization of Hazy Morphology on AlInP/GaAs Epitaxial Wafers Grown by Organometallic Vapor-Phase Epitaxy. Journal of Electronic Materials, 2021, 50, 3006-3012.	2.2	1
100	Investigating the Potential of Amine-Thiol Solvent System for High-Efficiency CuInSe ₂ Devices. , 2020, , .		1
101	Solution-Processed Ceria Interface Layer for Enhancing Performance of Avalanche Amorphous-Selenium Photodetectors. , 2020, , .		1
102	Study of Defect Structures in 6H-SiC a/m-Plane Pseudofiber Crystals Grown by Hot-Wall CVD Epitaxy. Journal of Electronic Materials, 2016, 45, 2078-2086.	2.2	0