

Nikolay Kornienko

List of Publications by Year in descending order

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Conductive Metal-Organic Frameworks Bearing M^{IV} Active Sites as Highly Active Biomass Valorization Electrocatalysts. <i>ChemSusChem</i> , 2022, 15, .	3.6	4
2	Electrocatalytic carbon dioxide reduction in acid. <i>Chem Catalysis</i> , 2022, 2, 29-38.	2.9	23
3	A super basic strategy. <i>Joule</i> , 2022, 6, 32-34.	11.7	0
4	Electrochemically driven C-N bond formation from CO_2 and ammonia at the triple-phase boundary. <i>Chemical Science</i> , 2022, 13, 3957-3964.	3.7	38
5	Linker-Modulated Peroxide Electrosynthesis Using Metal-Organic Nanosheets**. <i>ChemElectroChem</i> , 2022, 9, .	1.7	3
6	Highly efficient water oxidation via a bimolecular reaction mechanism on rutile structured mixed-metal oxyfluorides. <i>Chem Catalysis</i> , 2022, 2, 1114-1127.	2.9	5
7	C-N triple bond cleavage via transmembrane hydrogenation. <i>Chem Catalysis</i> , 2022, 2, 499-507.	2.9	10
8	Construction of C-N bonds from small-molecule precursors through heterogeneous electrocatalysis. <i>Nature Reviews Chemistry</i> , 2022, 6, 303-319.	13.8	108
9	Emerging opportunities with metal-organic framework electrocatalytic platforms. <i>Chemical Physics Reviews</i> , 2022, 3, .	2.6	3
10	<i>Operando</i> spectroscopy of nanoscopic metal/covalent organic framework electrocatalysts. <i>Nanoscale</i> , 2021, 13, 1507-1514.	2.8	20
11	Towards atomic precision in HMF and methane oxidation electrocatalysts. <i>Chemical Communications</i> , 2021, 57, 4230-4238.	2.2	7
12	Amorphous Iron-Manganese Oxyfluorides, Promising Catalysts for Oxygen Evolution Reaction under Acidic Media. <i>ACS Applied Energy Materials</i> , 2021, 4, 1173-1181.	2.5	25
13	Rational incorporation of defects within metal-organic frameworks generates highly active electrocatalytic sites. <i>Chemical Science</i> , 2021, 12, 7324-7333.	3.7	50
14	Pushing the methodological envelope in understanding the photo/electrosynthetic materials-microorganism interface. <i>iScience</i> , 2021, 24, 103049.	1.9	3
15	Adaptive framework CO_2 catalysis. <i>CheM</i> , 2021, 7, 2554-2555.	5.8	6
16	Probing electrocatalytic reactions with furfural on copper surfaces. <i>Chemical Communications</i> , 2021, 57, 5127-5130.	2.2	20
17	Strategies for heterogeneous small-molecule electrocatalysis. <i>Cell Reports Physical Science</i> , 2021, 2, 100682.	2.8	6
18	Host-Guest Chemistry Meets Electrocatalysis: Cucurbit[6]uril on a Au Surface as a Hybrid System in CO_2 Reduction. <i>ACS Catalysis</i> , 2020, 10, 751-761.	5.5	43

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19	Metal-based nanomaterials for efficient CO ₂ electroreduction: Recent advances in mechanism, material design and selectivity. <i>Nano Energy</i> , 2020, 78, 105311.	8.2	42
20	Shell isolated nanoparticle enhanced Raman spectroscopy for renewable energy electrocatalysis. <i>New Journal of Chemistry</i> , 2020, 44, 19953-19960.	1.4	10
21	Mechanochemical synthesis of cobalt/copper fluorophosphate generates a multifunctional electrocatalyst. <i>Chemical Communications</i> , 2020, 56, 9276-9279.	2.2	5
22	Speeding up Nanoscience and Nanotechnology with Ultrafast Plasmonics. <i>Nano Letters</i> , 2020, 20, 5593-5596.	4.5	8
23	<i>Operando</i> vibrational spectroscopy for electrochemical biomass valorization. <i>Chemical Communications</i> , 2020, 56, 8726-8734.	2.2	28
24	Electrochemically Triggered Dynamics within a Hybrid Metal–Organic Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2020, 142, 12382-12393.	6.6	40
25	Disparity of Cytochrome Utilization in Anodic and Cathodic Extracellular Electron Transfer Pathways of <i>Geobacter sulfurreducens</i> Biofilms. <i>Journal of the American Chemical Society</i> , 2020, 142, 5194-5203.	6.6	59
26	Heterogeneous electrocatalytic reduction of CO ₂ promoted by secondary coordination sphere effects. <i>New Journal of Chemistry</i> , 2020, 44, 4246-4252.	1.4	20
27	Electrochemical biomass valorization on gold-metal oxide nanoscale heterojunctions enables investigation of both catalyst and reaction dynamics with <i>operando</i> surface-enhanced Raman spectroscopy. <i>Chemical Science</i> , 2020, 11, 1798-1806.	3.7	120
28	A One–Pot Route to Faceted FePt–Fe ₃ O ₄ Dumbbells: Probing Morphology–Catalytic Activity Effects in O ₂ Reduction Catalysis. <i>Advanced Functional Materials</i> , 2020, 30, 2002633.	7.8	18
29	Integrating Materials Design and Operando Spectroscopy for the Development of Next Generation CO ₂ Reduction and Biomass Valorization Catalytic Systems. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1513-1513.	0.0	0
30	Probing CO ₂ Conversion Chemistry on Nanostructured Surfaces with Operando Vibrational Spectroscopy. <i>Nano Letters</i> , 2019, 19, 4817-4826.	4.5	86
31	2020 Roadmap on two-dimensional nanomaterials for environmental catalysis. <i>Chinese Chemical Letters</i> , 2019, 30, 2065-2088.	4.8	90
32	Investigation of mixed-metal (oxy)fluorides as a new class of water oxidation electrocatalysts. <i>Chemical Science</i> , 2019, 10, 9209-9218.	3.7	47
33	<i>Operando</i> Raman probing of electrocatalytic biomass oxidation on gold nanoparticle surfaces. <i>Chemical Communications</i> , 2019, 55, 11996-11999.	2.2	23
34	Artificial photosynthesis with metal and covalent organic frameworks (MOFs and COFs): challenges and prospects in fuel-forming electrocatalysis. <i>Physiologia Plantarum</i> , 2019, 166, 460-471.	2.6	31
35	Advancing Techniques for Investigating the Enzyme–Electrode Interface. <i>Accounts of Chemical Research</i> , 2019, 52, 1439-1448.	7.6	59
36	Bioinspired Synthesis of Reduced Graphene Oxide-Wrapped <i>Geobacter sulfurreducens</i> as a Hybrid Electrocatalyst for Efficient Oxygen Evolution Reaction. <i>Chemistry of Materials</i> , 2019, 31, 3686-3693.	3.2	47

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37	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solar-Driven Reduction of Carbon Dioxide. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4601-4605.	7.2	115
38	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solar-Driven Reduction of Carbon Dioxide. <i>Angewandte Chemie</i> , 2019, 131, 4649-4653.	1.6	34
39	Physical Biology of the Materials' Microorganism Interface. <i>Journal of the American Chemical Society</i> , 2018, 140, 1978-1985.	6.6	115
40	Extending the Compositional Space of Mixed Lead Halide Perovskites by Cs, Rb, K, and Na Doping. <i>Journal of Physical Chemistry C</i> , 2018, 122, 13548-13557.	1.5	70
41	Reticular Electronic Tuning of Porphyrin Active Sites in Covalent Organic Frameworks for Electrocatalytic Carbon Dioxide Reduction. <i>Journal of the American Chemical Society</i> , 2018, 140, 1116-1122.	6.6	457
42	Efficient hydrogen peroxide generation using reduced graphene oxide-based oxygen reduction electrocatalysts. <i>Nature Catalysis</i> , 2018, 1, 282-290.	16.1	699
43	Enhancing Catalysis through Substitute-Driven Redox Tuning. <i>Joule</i> , 2018, 2, 207-209.	11.7	20
44	Interfacing nature's catalytic machinery with synthetic materials for semi-artificial photosynthesis. <i>Nature Nanotechnology</i> , 2018, 13, 890-899.	15.6	322
45	Oxygenic Photoreactivity in Photosystem II Studied by Rotating Ring Disk Electrochemistry. <i>Journal of the American Chemical Society</i> , 2018, 140, 17923-17931.	6.6	18
46	Bias-free photoelectrochemical water splitting with photosystem II on a dye-sensitized photoanode wired to hydrogenase. <i>Nature Energy</i> , 2018, 3, 944-951.	19.8	192
47	Catalysis by design: development of a bifunctional water splitting catalyst through an operando measurement directed optimization cycle. <i>Chemical Science</i> , 2018, 9, 5322-5333.	3.7	73
48	Aerobic Conditions Enhance the Photocatalytic Stability of CdS/CdOxQuantum Dots. <i>Chemistry - A European Journal</i> , 2018, 24, 18385-18388.	1.7	11
49	Solar Water Splitting with a Hydrogenase Integrated in Photoelectrochemical Tandem Cells. <i>Angewandte Chemie</i> , 2018, 130, 10755-10759.	1.6	16
50	Solar Water Splitting with a Hydrogenase Integrated in Photoelectrochemical Tandem Cells. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10595-10599.	7.2	93
51	Critical Role of Methylammonium Librational Motion in Methylammonium Lead Iodide (CH ₃ NH ₃ PbI ₃) Perovskite Photochemistry. <i>Nano Letters</i> , 2017, 17, 4151-4157.	4.5	55
52	Cyborgian Material Design for Solar Fuel Production: The Emerging Photosynthetic Biohybrid Systems. <i>Accounts of Chemical Research</i> , 2017, 50, 476-481.	7.6	114
53	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2016, 138, 7236-7239.	6.6	397
54	Growth and Photoelectrochemical Energy Conversion of Wurtzite Indium Phosphide Nanowire Arrays. <i>ACS Nano</i> , 2016, 10, 5525-5535.	7.3	70

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55	Spectroscopic elucidation of energy transfer in hybrid inorganic–biological organisms for solar-to-chemical production. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11750-11755.	3.3	125
56	Anisotropic phase segregation and migration of Pt in nanocrystals en route to nanoframe catalysts. Nature Materials, 2016, 15, 1188-1194.	13.3	244
57	Atomic Resolution Imaging of Halide Perovskites. Nano Letters, 2016, 16, 7530-7535.	4.5	125
58	Low-Temperature Solution-Phase Growth of Silicon and Silicon-Containing Alloy Nanowires. Journal of Physical Chemistry C, 2016, 120, 20525-20529.	1.5	4
59	Single-nanowire photoelectrochemistry. Nature Nanotechnology, 2016, 11, 609-612.	15.6	111
60	TiO ₂ /BiVO ₄ Nanowire Heterostructure Photoanodes Based on Type II Band Alignment. ACS Central Science, 2016, 2, 80-88.	5.3	263
61	<i>Operando</i> Spectroscopic Analysis of an Amorphous Cobalt Sulfide Hydrogen Evolution Electrocatalyst. Journal of the American Chemical Society, 2015, 137, 7448-7455.	6.6	330
62	Atomic Structure of Pt ₃ Ni Nanoframe Electrocatalysts by <i>In Situ</i> X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2015, 137, 15817-15824.	6.6	197
63	Mesoscopic Constructs of Ordered and Oriented Metal–Organic Frameworks on Plasmonic Silver Nanocrystals. Journal of the American Chemical Society, 2015, 137, 2199-2202.	6.6	141
64	Solution Phase Synthesis of Indium Gallium Phosphide Alloy Nanowires. ACS Nano, 2015, 9, 3951-3960.	7.3	44
65	Atomically thin two-dimensional organic-inorganic hybrid perovskites. Science, 2015, 349, 1518-1521.	6.0	1,159
66	Metal–Organic Frameworks for Electrocatalytic Reduction of Carbon Dioxide. Journal of the American Chemical Society, 2015, 137, 14129-14135.	6.6	966
67	Covalent organic frameworks comprising cobalt porphyrins for catalytic CO ₂ reduction in water. Science, 2015, 349, 1208-1213.	6.0	2,046
68	Visible-Light Photoredox Catalysis: Selective Reduction of Carbon Dioxide to Carbon Monoxide by a Nickel <i>N</i> -Heterocyclic Carbene–Isoquinoline Complex. Journal of the American Chemical Society, 2013, 135, 14413-14424.	6.6	317
69	2-D Array Photonic Crystal Sensing Motif. Journal of the American Chemical Society, 2011, 133, 9152-9155.	6.6	207
70	Expanding the Scope of Electrocatalysis Through Catalyst Design and Operando Spectroscopy. , 0, , .		0
71	Host-guest Chemistry Meets Electrocatalysis: Cucurbit[6]uril on a Au Surface as Hybrid System in CO ₂ Reduction. , 0, , .		0