Nikolay Kornienko

List of Publications by Year
in descending order

71	10,258	87888 38	98798 67
papers	citations	h-index	g-index

86	86	86	15330
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conductive Metalâ€Organic Frameworks Bearing Mâˆ’O₄ Active Sites as Highly Active Biomass Valorization Electrocatalysts. ChemSusChem, 2022, 15, .	6.8	4
2	Electrocatalytic carbon dioxide reduction in acid. Chem Catalysis, 2022, 2, 29-38.	6.1	23
3	A super basic strategy. Joule, 2022, 6, 32-34.	24.0	0
4	Electrochemically driven Câ€“N bond formation from CO₂ and ammonia at the triple-phase boundary. Chemical Science, 2022, 13, 3957-3964.	7.4	38
5	Linkerâ€Modulated Peroxide Electrosynthesis Using Metalâ€Organic Nanosheets**. ChemElectroChem, 2022, 9, .	3.4	3
6	Highly efficient water oxidation via a bimolecular reaction mechanism on rutile structured mixed-metal oxyfluorides. Chem Catalysis, 2022, 2, 1114-1127.	6.1	5
7	Câ‰¡N triple bond cleavage via transmembrane hydrogenation. Chem Catalysis, 2022, 2, 499-507.	6.1	10
8	Construction of Câ€“N bonds from small-molecule precursors through heterogeneous electrocatalysis. Nature Reviews Chemistry, 2022, 6, 303-319.	30.2	108
9	Emerging opportunities with metal-organic framework electrosynthetic platforms. Chemical Physics Reviews, 2022, 3, .	5.7	3
10	Operando spectroscopy of nanoscopic metal/covalent organic framework electrocatalysts. Nanoscale, 2021, 13, 1507-1514.	5.6	20
11	Towards atomic precision in HMF and methane oxidation electrocatalysts. Chemical Communications, 2021, 57, 4230-4238.	4.1	7
12	Amorphous Ironâ€“Manganese Oxyfluorides, Promising Catalysts for Oxygen Evolution Reaction under Acidic Media. ACS Applied Energy Materials, 2021, 4, 1173-1181.	5.1	25
13	Rational incorporation of defects within metalâ€“organic frameworks generates highly active electrocatalytic sites. Chemical Science, 2021, 12, 7324-7333.	7.4	50
14	Pushing the methodological envelope in understanding the photo/electrosynthetic materials-microorganism interface. IScience, 2021, 24, 103049.	4.1	3
15	Adaptive framework CO2 catalysis. CheM, 2021, 7, 2554-2555.	11.7	6
16	Probing electrosynthetic reactions with furfural on copper surfaces. Chemical Communications, 2021, 57, 5127-5130.	4.1	20
17	Strategies for heterogeneous small-molecule electrosynthesis. Cell Reports Physical Science, 2021, 2, 100682.	5.6	6
18	Hostâ€“Guest Chemistry Meets Electrocatalysis: Cucurbit[6]uril on a Au Surface as a Hybrid System in CO₂ Reduction. ACS Catalysis, 2020, 10, 751-761.	11.2	43

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19	Metal-based nanomaterials for efficient CO2 electroreduction: Recent advances in mechanism, material design and selectivity. Nano Energy, 2020, 78, 105311.	16.0	42
20	Shell isolated nanoparticle enhanced Raman spectroscopy for renewable energy electrocatalysis. New Journal of Chemistry, 2020, 44, 19953-19960.	2.8	10
21	Mechanochemical synthesis of cobalt/copper fluorophosphate generates a multifunctional electrocatalyst. Chemical Communications, 2020, 56, 9276-9279.	4.1	5
22	Speeding up Nanoscience and Nanotechnology with Ultrafast Plasmonics. Nano Letters, 2020, 20, 5593-5596.	9.1	8
23	Operando vibrational spectroscopy for electrochemical biomass valorization. Chemical Communications, 2020, 56, 8726-8734.	4.1	28
24	Electrochemically Triggered Dynamics within a Hybrid Metalâ€“Organic Electrocatalyst. Journal of the American Chemical Society, 2020, 142, 12382-12393.	13.7	40
25	Disparity of Cytochrome Utilization in Anodic and Cathodic Extracellular Electron Transfer Pathways of Geobacter sulfurreducens Biofilms. Journal of the American Chemical Society, 2020, 142, 5194-5203.	13.7	59
26	Heterogeneous electrocatalytic reduction of CO₂ promoted by secondary coordination sphere effects. New Journal of Chemistry, 2020, 44, 4246-4252.	2.8	20
27	Electrochemical biomass valorization on gold-metal oxide nanoscale heterojunctions enables investigation of both catalyst and reaction dynamics with operando surface-enhanced Raman spectroscopy. Chemical Science, 2020, 11, 1798-1806.	7.4	120
28	A Oneâ€Pot Route to Faceted FePtâ€Fe₃O₄ Dumbbells: Probing Morphologyâ€“Catalytic Activity Effects in O₂ Reduction Catalysis. Advanced Functional Materials, 2020, 30, 2002633.	14.9	18
29	Integrating Materials Design and Operando Spectroscopy for the Development of Next Generation CO2 Reduction and Biomass Valorization Catalytic Systems. ECS Meeting Abstracts, 2020, MA2020-01, 1513-1513.	0.0	0
30	Probing CO₂ Conversion Chemistry on Nanostructured Surfaces with Operando Vibrational Spectroscopy. Nano Letters, 2019, 19, 4817-4826.	9.1	86
31	2020 Roadmap on two-dimensional nanomaterials for environmental catalysis. Chinese Chemical Letters, 2019, 30, 2065-2088.	9.0	90
32	Investigation of mixed-metal (oxy)fluorides as a new class of water oxidation electrocatalysts. Chemical Science, 2019, 10, 9209-9218.	7.4	47
33	Operando Raman probing of electrocatalytic biomass oxidation on gold nanoparticle surfaces. Chemical Communications, 2019, 55, 11996-11999.	4.1	23
34	Artificial photosynthesis with metal and covalent organic frameworks (MOFs and COFs): challenges and prospects in fuelâ€forming electrocatalysis. Physiologia Plantarum, 2019, 166, 460-471.	5.2	31
35	Advancing Techniques for Investigating the Enzymeâ€“Electrode Interface. Accounts of Chemical Research, 2019, 52, 1439-1448.	15.6	59
36	Bioinspired Synthesis of Reduced Graphene Oxide-Wrapped Geobacter sulfurreducens as a Hybrid Electrocatalyst for Efficient Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 3686-3693.	6.7	47

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37	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solarâ€Driven Reduction of Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, 4601-4605.	13.8	115
38	Interfacing Formate Dehydrogenase with Metal Oxides for the Reversible Electrocatalysis and Solarâ€Driven Reduction of Carbon Dioxide. Angewandte Chemie, 2019, 131, 4649-4653.	2.0	34
39	Physical Biology of the Materialsâ€“Microorganism Interface. Journal of the American Chemical Society, 2018, 140, 1978-1985.	13.7	115
40	Extending the Compositional Space of Mixed Lead Halide Perovskites by Cs, Rb, K, and Na Doping. Journal of Physical Chemistry C, 2018, 122, 13548-13557.	3.1	70
41	Reticular Electronic Tuning of Porphyrin Active Sites in Covalent Organic Frameworks for Electrocatalytic Carbon Dioxide Reduction. Journal of the American Chemical Society, 2018, 140, 1116-1122.	13.7	457
42	Efficient hydrogen peroxide generation using reduced graphene oxide-based oxygen reduction electrocatalysts. Nature Catalysis, 2018, 1, 282-290.	34.4	699
43	Enhancing Catalysis through Substitute-Driven Redox Tuning. Joule, 2018, 2, 207-209.	24.0	20
44	Interfacing natureâ€™s catalytic machinery with synthetic materials for semi-artificial photosynthesis. Nature Nanotechnology, 2018, 13, 890-899.	31.5	322
45	Oxygenic Photoreactivity in Photosystem II Studied by Rotating Ring Disk Electrochemistry. Journal of the American Chemical Society, 2018, 140, 17923-17931.	13.7	18
46	Bias-free photoelectrochemical water splitting with photosystem II on a dye-sensitized photoanode wired to hydrogenase. Nature Energy, 2018, 3, 944-951.	39.5	192
47	Catalysis by design: development of a bifunctional water splitting catalyst through an operando measurement directed optimization cycle. Chemical Science, 2018, 9, 5322-5333.	7.4	73
48	Aerobic Conditions Enhance the Photocatalytic Stability of CdS/CdOxQuantum Dots. Chemistry - A European Journal, 2018, 24, 18385-18388.	3.3	11
49	Solar Water Splitting with a Hydrogenase Integrated in Photoelectrochemical Tandem Cells. Angewandte Chemie, 2018, 130, 10755-10759.	2.0	16
50	Solar Water Splitting with a Hydrogenase Integrated in Photoelectrochemical Tandem Cells. Angewandte Chemie - International Edition, 2018, 57, 10595-10599.	13.8	93
51	Critical Role of Methylammonium Librational Motion in Methylammonium Lead Iodide (CH₃NH₃PbI₃) Perovskite Photochemistry. Nano Letters, 2017, 17, 4151-4157.	9.1	55
52	Cyborgian Material Design for Solar Fuel Production: The Emerging Photosynthetic Biohybrid Systems. Accounts of Chemical Research, 2017, 50, 476-481.	15.6	114
53	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. Journal of the American Chemical Society, 2016, 138, 7236-7239.	13.7	397
54	Growth and Photoelectrochemical Energy Conversion of Wurtzite Indium Phosphide Nanowire Arrays. ACS Nano, 2016, 10, 5525-5535.	14.6	70

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55	Spectroscopic elucidation of energy transfer in hybrid inorganicâ€“biological organisms for solar-to-chemical production. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11750-11755.	7.1	125
56	Anisotropic phase segregation and migration of Pt in nanocrystals en route to nanoframe catalysts. Nature Materials, 2016, 15, 1188-1194.	27.5	244
57	Atomic Resolution Imaging of Halide Perovskites. Nano Letters, 2016, 16, 7530-7535.	9.1	125
58	Low-Temperature Solution-Phase Growth of Silicon and Silicon-Containing Alloy Nanowires. Journal of Physical Chemistry C, 2016, 120, 20525-20529.	3.1	4
59	Single-nanowire photoelectrochemistry. Nature Nanotechnology, 2016, 11, 609-612.	31.5	111
60	TiO₂/BiVO₄ Nanowire Heterostructure Photoanodes Based on Type II Band Alignment. ACS Central Science, 2016, 2, 80-88.	11.3	263
61	Operando Spectroscopic Analysis of an Amorphous Cobalt Sulfide Hydrogen Evolution Electrocatalyst. Journal of the American Chemical Society, 2015, 137, 7448-7455.	13.7	330
62	Atomic Structure of Pt₃Ni Nanoframe Electrocatalysts by in Situ X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2015, 137, 15817-15824.	13.7	197
63	Mesoscopic Constructs of Ordered and Oriented Metalâ€“Organic Frameworks on Plasmonic Silver Nanocrystals. Journal of the American Chemical Society, 2015, 137, 2199-2202.	13.7	141
64	Solution Phase Synthesis of Indium Gallium Phosphide Alloy Nanowires. ACS Nano, 2015, 9, 3951-3960.	14.6	44
65	Atomically thin two-dimensional organic-inorganic hybrid perovskites. Science, 2015, 349, 1518-1521.	12.6	1,159
66	Metalâ€“Organic Frameworks for Electrocatalytic Reduction of Carbon Dioxide. Journal of the American Chemical Society, 2015, 137, 14129-14135.	13.7	966
67	Covalent organic frameworks comprising cobalt porphyrins for catalytic CO ₂ reduction in water. Science, 2015, 349, 1208-1213.	12.6	2,046
68	Visible-Light Photoredox Catalysis: Selective Reduction of Carbon Dioxide to Carbon Monoxide by a Nickel N-Heterocyclic Carbeneâ€“Isoquinoline Complex. Journal of the American Chemical Society, 2013, 135, 14413-14424.	13.7	317
69	2-D Array Photonic Crystal Sensing Motif. Journal of the American Chemical Society, 2011, 133, 9152-9155.	13.7	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 CO2 Reduction. , 0, , .		0