

# Chang Hyuck Choi

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/3463987/chang-hyuck-choi-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69  
papers

4,945  
citations

32  
h-index

70  
g-index

75  
ext. papers

5,907  
ext. citations

11.5  
avg, IF

5.96  
L-index

#	Paper	IF	Citations
69	Binary and ternary doping of nitrogen, boron, and phosphorus into carbon for enhancing electrochemical oxygen reduction activity. <i>ACS Nano</i> , <b>2012</b> , 6, 7084-91	16.7	701
68	Tuning selectivity of electrochemical reactions by atomically dispersed platinum catalyst. <i>Nature Communications</i> , <b>2016</b> , 7, 10922	17.4	509
67	B, N- and P, N-doped graphene as highly active catalysts for oxygen reduction reactions in acidic media. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 3694	13	355
66	Long-range electron transfer over graphene-based catalyst for high-performing oxygen reduction reactions: importance of size, N-doping, and metallic impurities. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 9070-7	16.4	256
65	Stability of Fe-N-C Catalysts in Acidic Medium Studied by Operando Spectroscopy. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 12753-7	16.4	231
64	The Achilles Heel of iron-based catalysts during oxygen reduction in an acidic medium. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 3176-3182	35.4	208
63	Rational Design of a Hierarchical Tin Dendrite Electrode for Efficient Electrochemical Reduction of CO <sub>2</sub> . <i>ChemSusChem</i> , <b>2015</b> , 8, 3092-8	8.3	204
62	Phosphorus/Nitrogen dual doped carbon as an effective catalyst for oxygen reduction reaction in acidic media: effects of the amount of P-doping on the physical and electrochemical properties of carbon. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 12107		191
61	Heteroatom doped carbons prepared by the pyrolysis of bio-derived amino acids as highly active catalysts for oxygen electro-reduction reactions. <i>Green Chemistry</i> , <b>2011</b> , 13, 406-412	10	167
60	Hydrogen Peroxide Synthesis via Enhanced Two-Electron Oxygen Reduction Pathway on Carbon-Coated Pt Surface. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 30063-30070	3.8	161
59	Minimizing Operando Demetallation of Fe-N-C Electrocatalysts in Acidic Medium. <i>ACS Catalysis</i> , <b>2016</b> , 6, 3136-3146	13.1	151
58	Additional doping of phosphorus and/or sulfur into nitrogen-doped carbon for efficient oxygen reduction reaction in acidic media. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 1802-5	3.6	150
57	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Fe-N-C Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 8809-8812	16.4	144
56	Nitrogen-doped graphene/carbon nanotube self-assembly for efficient oxygen reduction reaction in acid media. <i>Applied Catalysis B: Environmental</i> , <b>2014</b> , 144, 760-766	21.8	86
55	Designed synthesis of well-defined Pd@Pt core-shell nanoparticles with controlled shell thickness as efficient oxygen reduction electrocatalysts. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 8190-8	4.8	85
54	Highly active N-doped-CNTs grafted on Fe/C prepared by pyrolysis of dicyandiamide on Fe <sub>2</sub> O <sub>3</sub> /C for electrochemical oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , <b>2011</b> , 103, 362-368	21.8	76
53	Electrocatalytic synthesis of hydrogen peroxide on Au-Pd nanoparticles: From fundamentals to continuous production. <i>Chemical Physics Letters</i> , <b>2017</b> , 683, 436-442	2.5	73

52	Photoelectrochemical production of formic acid and methanol from carbon dioxide on metal-decorated CuO/Cu <sub>2</sub> O-layered thin films under visible light irradiation. <i>Applied Catalysis B: Environmental</i> , <b>2014</b> , 158-159, 217-223	21.8	70
51	N-doped carbon prepared by pyrolysis of dicyandiamide with various MeCl <sub>2</sub> ·xH <sub>2</sub> O (Me = Co, Fe, and Ni) composites: Effect of type and amount of metal seed on oxygen reduction reactions. <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 119-120, 123-131	21.8	61
50	Theoretical and Experimental Understanding of Hydrogen Evolution Reaction Kinetics in Alkaline Electrolytes with Pt-Based Core-Shell Nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 18256-18263	16.4	58
49	Carbon Monoxide as a Promoter of Atomically Dispersed Platinum Catalyst in Electrochemical Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 16198-16205	16.4	55
48	Accurate Evaluation of Active-Site Density (SD) and Turnover Frequency (TOF) of PGM-Free Metal-Nitrogen-Doped Carbon (MNC) Electrocatalysts using CO Cryo Adsorption. <i>ACS Catalysis</i> , <b>2019</b> , 9, 4841-4852	13.1	49
47	Enhanced hydrogen generation from methanol aqueous solutions over Pt/MoO <sub>3</sub> /TiO <sub>2</sub> under ultraviolet light. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 3582-3587	6.7	49
46	Doping of chalcogens (sulfur and/or selenium) in nitrogen-doped graphene-NT self-assembly for enhanced oxygen reduction activity in acid media. <i>RSC Advances</i> , <b>2013</b> , 3, 12417	3.7	47
45	Pyrolyzed M <sub>n</sub> x catalysts for oxygen reduction reaction: progress and prospects. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 2158-2185	35.4	44
44	Identification of Single-Atom Ni Site Active toward Electrochemical CO Conversion to CO. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 925-933	16.4	39
43	pH Effect on the H <sub>2</sub> O <sub>2</sub> -Induced Deactivation of Fe-N-C Catalysts. <i>ACS Catalysis</i> , <b>2020</b> , 10, 8485-8495	13.1	37
42	Atomistic Insights into the Stability of Pt Single-Atom Electrocatalysts. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 15496-15504	16.4	37
41	Easy and controlled synthesis of nitrogen-doped carbon. <i>Carbon</i> , <b>2013</b> , 55, 98-107	10.4	35
40	Synergism between CdTe semiconductor and pyridine- $\pi$ photoenhanced electrocatalysis for CO <sub>2</sub> reduction to formic acid. <i>RSC Advances</i> , <b>2014</b> , 4, 3016-3019	3.7	34
39	Graphene-derived Fe/Co-N-C catalyst in direct methanol fuel cells: Effects of the methanol concentration and ionomer content on cell performance. <i>Journal of Power Sources</i> , <b>2017</b> , 358, 76-84	8.9	32
38	Highly selective and scalable CO <sub>2</sub> to CO - Electrolysis using coral-nanostructured Ag catalysts in zero-gap configuration. <i>Nano Energy</i> , <b>2020</b> , 76, 105030	17.1	32
37	Effect of Pt introduced on Ru-based electrocatalyst for oxygen evolution activity and stability. <i>Electrochemistry Communications</i> , <b>2019</b> , 104, 106469	5.1	31
36	Combinatorial high-throughput screening for highly active Pd-Ir-Ce based ternary catalysts in electrochemical oxygen reduction reaction. <i>ACS Combinatorial Science</i> , <b>2013</b> , 15, 572-9	3.9	30
35	Enhanced electrochemical oxygen reduction reaction by restacking of N-doped single graphene layers. <i>RSC Advances</i> , <b>2013</b> , 3, 4246	3.7	30

34	Facile growth of N-doped CNTs on Vulcan carbon and the effects of iron content on electrochemical activity for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 4563-4570	6.7	29
33	Stability of Fe-N-C Catalysts in Acidic Medium Studied by Operando Spectroscopy. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 12944-12948	3.6	28
32	Oxygen reduction activity of Pd-Mn <sub>3</sub> O <sub>4</sub> nanoparticles and performance enhancement by voltammetrically accelerated degradation. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 6842-8	3.6	28
31	Carbon-Supported IrCoO nanoparticles as an efficient and stable OER electrocatalyst for practicable CO <sub>2</sub> electrolysis. <i>Applied Catalysis B: Environmental</i> , <b>2020</b> , 269, 118820	21.8	25
30	Selective electrochemical reduction of nitric oxide to hydroxylamine by atomically dispersed iron catalyst. <i>Nature Communications</i> , <b>2021</b> , 12, 1856	17.4	25
29	Catalytic Surface Specificity of Ni(OH) <sub>2</sub> -Decorated Pt Nanocubes for the Hydrogen Evolution Reaction in an Alkaline Electrolyte. <i>ChemSusChem</i> , <b>2019</b> , 12, 4021-4028	8.3	20
28	Dimensionality-dependent oxygen reduction activity on doped graphene: Is graphene a promising substrate for electrocatalysis?. <i>Nano Energy</i> , <b>2015</b> , 11, 526-532	17.1	19
27	Electrochemical Evidence for Two Sub-families of FeN <sub>x</sub> C <sub>y</sub> Moieties with Concentration-Dependent Cyanide Poisoning. <i>ChemElectroChem</i> , <b>2018</b> , 5, 1880-1885	4.3	18
26	Boosting the Role of Ir in Mitigating Corrosion of Carbon Support by Alloying with Pt. <i>ACS Catalysis</i> , <b>2020</b> , 10, 12300-12309	13.1	17
25	High crystallinity design of Ir-based catalysts drives catalytic reversibility for water electrolysis and fuel cells. <i>Nature Communications</i> , <b>2021</b> , 12, 4271	17.4	17
24	Quantification of Active Site Density and Turnover Frequency: From Single-Atom Metal to Nanoparticle Electrocatalysts. <i>JACS Au</i> , <b>2021</b> , 1, 586-597		16
23	Carbon nanofibers as parent materials for a graphene-based Fe-N-C catalyst for the oxygen reduction reaction. <i>Catalysis Today</i> , <b>2017</b> , 295, 125-131	5.3	15
22	Turning Harmful Deposition of Metal Impurities into Activation of Nitrogen-Doped Carbon Catalyst toward Durable Electrochemical CO <sub>2</sub> Reduction. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2343-2350	20.1	15
21	Optimization of catalyst layer composition for PEMFC using graphene-based oxygen reduction reaction catalysts. <i>Journal of Power Sources</i> , <b>2015</b> , 286, 166-174	8.9	15
20	Underestimation of Platinum Electrocatalysis Induced by Carbon Monoxide Evolved from Graphite Counter Electrodes. <i>ACS Catalysis</i> , <b>2020</b> , 10, 10773-10783	13.1	14
19	Oxygen Vacancies Induced NiFe-Hydroxide as a Scalable, Efficient, and Stable Electrode for Alkaline Overall Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 14071-14081	8.3	14
18	Selective H <sub>2</sub> O <sub>2</sub> production on surface-oxidized metal-nitrogen-carbon electrocatalysts. <i>Catalysis Today</i> , <b>2021</b> , 359, 99-105	5.3	14
17	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Fe-N-C Catalysts. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 8935-8938	3.6	13

16	On the importance of the electric double layer structure in aqueous electrocatalysis.. <i>Nature Communications</i> , <b>2022</b> , 13, 174	17.4	13
15	Overestimation of Photoelectrochemical Hydrogen Evolution Reactivity Induced by Noble Metal Impurities Dissolved from Counter/Reference Electrodes. <i>ACS Catalysis</i> , <b>2020</b> , 10, 3381-3389	13.1	12
14	Single-Atom Catalysts: A Perspective toward Application in Electrochemical Energy Conversion. <i>Jacs Au</i> , <b>2021</b> , 1, 1086-1100		12
13	Operando Stability of Platinum Electrocatalysts in Ammonia Oxidation Reactions. <i>ACS Catalysis</i> , <b>2020</b> , 10, 11674-11684	13.1	10
12	Highly selective and stackable electrode design for gaseous CO <sub>2</sub> electroreduction to ethylene in a zero-gap configuration. <i>Nano Energy</i> , <b>2021</b> , 84, 105859	17.1	7
11	Real-time monitoring of electrochemical carbon corrosion in alkaline media. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 19834-19839	13	7
10	NO -induced deactivation of Pt electrocatalysis towards the ammonia oxidation reaction. <i>Electrochemistry Communications</i> , <b>2018</b> , 94, 31-35	5.1	5
9	Dimensional tailoring of nitrogen-doped graphene for high performance supercapacitors. <i>RSC Advances</i> , <b>2016</b> , 6, 55577-55583	3.7	4
8	Aerosol-assisted controlled packing of silica nanocolloids: templateless synthesis of mesoporous silicates with structural tunability and complexity. <i>Langmuir</i> , <b>2015</b> , 31, 542-50	4	4
7	Understanding the Grain Boundary Behavior of Bimetallic Platinum-Cobalt Alloy Nanowires toward Oxygen Electro-Reduction. <i>ACS Catalysis</i> , <b>2022</b> , 12, 3516-3523	13.1	3
6	Does the Encapsulation Strategy of Pt Nanoparticles with Carbon Layers Really Ensure Both Highly Active and Durable Electrocatalysis in Fuel Cells?. <i>ACS Catalysis</i> , <b>2021</b> , 11, 7317-7325	13.1	3
5	Fluorophore Metal-Organic Complexes: High-Throughput Optical Screening for Aprotic Electrochemical Systems. <i>ACS Combinatorial Science</i> , <b>2017</b> , 19, 81-84	3.9	1
4	Bendable BiVO <sub>4</sub> -Based Photoanodes on a Metal Substrate Realized through Template Engineering for Photoelectrochemical Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 16478-16484	9.5	1
3	Deactivation of Fe-N-C catalysts during catalyst ink preparation process. <i>Catalysis Today</i> , <b>2021</b> , 359, 9-15	5.3	1
2	The basics of electrode material evaluation in (photo)electrochemical system. <i>Ceramist</i> , <b>2020</b> , 23, 339-349	4.3	
1	Unraveling the role of introduced W in oxidation tolerance for Pt-based catalysts via on-line inductive coupled plasma-mass spectrometry. <i>Electrochemistry Communications</i> , <b>2022</b> , 139, 107301	5.1	