

# Peng Chen

## List of Publications by Citations

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

78  
papers

6,091  
citations

40  
h-index

78  
g-index

90  
ext. papers

6,778  
ext. citations

14.4  
avg, IF

5.81  
L-index

#	Paper	IF	Citations
78	Oxygen Binding, Activation, and Reduction to Water by Copper Proteins. <i>Angewandte Chemie - International Edition</i> , <b>2001</b> , 40, 4570-4590	16.4	691
77	Size-dependent catalytic activity and dynamics of gold nanoparticles at the single-molecule level. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 138-46	16.4	422
76	Single-molecule nanocatalysis reveals heterogeneous reaction pathways and catalytic dynamics. <i>Nature Materials</i> , <b>2008</b> , 7, 992-6	27	351
75	Strategies for enhancing the sensitivity of plasmonic nanosensors. <i>Nano Today</i> , <b>2015</b> , 10, 213-239	17.9	283
74	A general strategy to convert the MerR family proteins into highly sensitive and selective fluorescent biosensors for metal ions. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 728-9	16.4	263
73	Sub-particle reaction and photocurrent mapping to optimize catalyst-modified photoanodes. <i>Nature</i> , <b>2016</b> , 530, 77-80	50.4	241
72	Oxygen activation by the noncoupled binuclear copper site in peptidylglycine alpha-hydroxylating monooxygenase. Reaction mechanism and role of the noncoupled nature of the active site. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 4991-5000	16.4	236
71	Quantitative super-resolution imaging uncovers reactivity patterns on single nanocatalysts. <i>Nature Nanotechnology</i> , <b>2012</b> , 7, 237-41	28.7	219
70	Single-molecule catalysis mapping quantifies site-specific activity and uncovers radial activity gradient on single 2D nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 1845-52	16.4	160
69	Spectroscopic and electronic structure studies of the diamagnetic side-on Cu(I)-superoxo complex Cu(O <sub>2</sub> )[HB(3-R-5-iPrpz) <sub>3</sub> ]: antiferromagnetic coupling versus covalent delocalization. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 466-74	16.4	147
68	Controlled photonic manipulation of proteins and other nanomaterials. <i>Nano Letters</i> , <b>2012</b> , 12, 1633-7	11.5	142
67	Observation of individual microtubule motor steps in living cells with endocytosed quantum dots. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 24220-4	3.4	142
66	O <sub>2</sub> activation by binuclear Cu sites: noncoupled versus exchange coupled reaction mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 13105-10	11.5	141
65	An exceptionally selective lead(II)-regulatory protein from <i>Ralstonia metallidurans</i> : development of a fluorescent lead(II) probe. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 2715-2719	16.4	137
64	Spectroscopic and Theoretical Studies of Mononuclear Copper(II) Alkyl- and Hydroperoxo Complexes: Electronic Structure Contributions to Reactivity. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 10177-10193	16.4	128
63	Single-molecule fluorescence imaging of nanocatalytic processes. <i>Chemical Society Reviews</i> , <b>2010</b> , 39, 4560-70	58.5	121
62	Approaches to single-nanoparticle catalysis. <i>Annual Review of Physical Chemistry</i> , <b>2014</b> , 65, 395-422	15.7	118

61	Spatiotemporal catalytic dynamics within single nanocatalysts revealed by single-molecule microscopy. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 1107-17	58.5	110
60	Heterogeneous integration of single-crystalline complex-oxide membranes. <i>Nature</i> , <b>2020</b> , 578, 75-81	50.4	107
59	N <sub>2</sub> O reduction by the $\mu_4$ -sulfide-bridged tetranuclear Cu <sub>2</sub> Z cluster active site. <i>Angewandte Chemie - International Edition</i> , <b>2004</b> , 43, 4132-40	16.4	97
58	Single-molecule electrocatalysis by single-walled carbon nanotubes. <i>Nano Letters</i> , <b>2009</b> , 9, 3968-73	11.5	92
57	Activation of N <sub>2</sub> O reduction by the fully reduced $\mu_4$ -sulfide bridged tetranuclear Cu <sub>2</sub> Z cluster in nitrous oxide reductase. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 15708-9	16.4	91
56	How does a single Pt nanocatalyst behave in two different reactions? A single-molecule study. <i>Nano Letters</i> , <b>2012</b> , 12, 1253-9	11.5	84
55	Spectroscopic and electronic structure studies of the $\mu_4$ -sulfide bridged tetranuclear Cu <sub>2</sub> Z cluster in N <sub>2</sub> O reductase: molecular insight into the catalytic mechanism. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 10497-507	16.4	83
54	Single-Molecule Kinetic Theory of Heterogeneous and Enzyme Catalysis. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 2393-2404	3.8	74
53	Reaction of elemental sulfur with a copper(I) complex forming a trans- $\mu_2$ -1,2 end-on disulfide complex: new directions in copper-sulfur chemistry. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 1160-1	16.4	74
52	Probing the catalytic activity and heterogeneity of Au-nanoparticles at the single-molecule level. <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 2767-78	3.6	73
51	Oxygen activation by the noncoupled binuclear copper site in peptidylglycine $\alpha$ -hydroxylating monooxygenase. Spectroscopic definition of the resting sites and the putative Cu <sub>2</sub> IM-OOH intermediate. <i>Biochemistry</i> , <b>2004</b> , 43, 5735-47	3.2	72
50	Electronic structure description of the $\mu_4$ -sulfide bridged tetranuclear Cu <sub>2</sub> Z center in N <sub>2</sub> O reductase. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 744-5	16.4	70
49	Concentration- and chromosome-organization-dependent regulator unbinding from DNA for transcription regulation in living cells. <i>Nature Communications</i> , <b>2015</b> , 6, 7445	17.4	61
48	Cooperative communication within and between single nanocatalysts. <i>Nature Chemistry</i> , <b>2018</b> , 10, 607-614	14.6	56
47	Imaging Catalytic Hotspots on Single Plasmonic Nanostructures via Correlated Super-Resolution and Electron Microscopy. <i>ACS Nano</i> , <b>2018</b> , 12, 5570-5579	16.7	56
46	Direct substitution and assisted dissociation pathways for turning off transcription by a MerR-family metalloregulator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 15121-6	11.5	55
45	Scalable Parallel Screening of Catalyst Activity at the Single-Particle Level and Subdiffraction Resolution. <i>ACS Catalysis</i> , <b>2013</b> , 3, 1448-1453	13.1	53
44	Single-nanoparticle catalysis at single-turnover resolution. <i>Chemical Physics Letters</i> , <b>2009</b> , 470, 151-157	2.5	53

43	Probing transient copper chaperone-Wilson disease protein interactions at the single-molecule level with nanovesicle trapping. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 2446-7	16.4	49
42	Bimetallic Effect of Single Nanocatalysts Visualized by Super-Resolution Catalysis Imaging. <i>ACS Central Science</i> , <b>2017</b> , 3, 1189-1197	16.8	47
41	Single polymer growth dynamics. <i>Science</i> , <b>2017</b> , 358, 352-355	33.3	42
40	Single-Molecule Kinetics Reveals a Hidden Surface Reaction Intermediate in Single-Nanoparticle Catalysis. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 26902-26911	3.8	41
39	Spectroscopy and bonding in side-on and end-on Cu <sub>2</sub> (S <sub>2</sub> ) cores: comparison to peroxide analogues. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 6394-408	16.4	40
38	Single-molecule kinetics of nanoparticle catalysis. <i>Nano Research</i> , <b>2009</b> , 2, 911-922	10	39
37	Distinguishing Direct and Indirect Photoelectrocatalytic Oxidation Mechanisms Using Quantitative Single-Molecule Reaction Imaging and Photocurrent Measurements. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 20668-20676	3.8	37
36	Super-resolution imaging of non-fluorescent reactions via competition. <i>Nature Chemistry</i> , <b>2019</b> , 11, 687-694	6.4	37
35	Charge Carrier Activity on Single-Particle Photo(electro)catalysts: Toward Function in Solar Energy Conversion. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 6729-6740	16.4	35
34	Single-molecule nanoscale electrocatalysis. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 6555-63	3.6	34
33	Graphene-assisted spontaneous relaxation towards dislocation-free heteroepitaxy. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 272-276	28.7	32
32	Facilitated Unbinding via Multivalency-Enabled Ternary Complexes: New Paradigm for Protein-DNA Interactions. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 860-868	24.3	27
31	Dynamic multibody protein interactions suggest versatile pathways for copper trafficking. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 8934-43	16.4	24
30	Metalloregulator CueR biases RNA polymerase's kinetic sampling of dead-end or open complex to repress or activate transcription. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 13467-72	11.5	21
29	Single-molecule study of metalloregulator CueR-DNA interactions using engineered Holliday junctions. <i>Biophysical Journal</i> , <b>2009</b> , 97, 844-52	2.9	20
28	Adaptor protein mediates dynamic pump assembly for bacterial metal efflux. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 6694-6699	11.5	19
27	Analogy between Enzyme and Nanoparticle Catalysis: A Single-Molecule Perspective. <i>ACS Catalysis</i> , <b>2019</b> , 9, 1985-1992	13.1	19
26	Nanovesicle trapping for studying weak protein interactions by single-molecule FRET. <i>Methods in Enzymology</i> , <b>2010</b> , 472, 41-60	1.7	19

25	Engineered holliday junctions as single-molecule reporters for protein-DNA interactions with application to a MerR-family regulator. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 12461-7	16.4	19
24	Reduktion von N <sub>2</sub> O an einem $\mu$ -sulfidverbrückten vierkernigen aktiven Cu <sub>2</sub> Z-Zentrum. <i>Angewandte Chemie</i> , <b>2004</b> , 116, 4224-4233	3.6	19
23	Frontier molecular orbital analysis of Cu(n)-O(2) reactivity. <i>Journal of Inorganic Biochemistry</i> , <b>2002</b> , 88, 368-74	4.2	19
22	Relating dynamic protein interactions of metallochaperones with metal transfer at the single-molecule level. <i>Faraday Discussions</i> , <b>2011</b> , 148, 71-82; discussion 97-108	3.6	17
21	Interpreting single turnover catalysis measurements with constrained mean dwell times. <i>Journal of Chemical Physics</i> , <b>2011</b> , 135, 174509	3.9	12
20	Single-molecule dynamics and mechanisms of metalloregulators and metallochaperones. <i>Biochemistry</i> , <b>2013</b> , 52, 7170-83	3.2	11
19	Single-molecule fluorescence studies from a bioinorganic perspective. <i>Inorganica Chimica Acta</i> , <b>2008</b> , 361, 809-819	2.7	11
18	Single Turnover Measurements of Nanoparticle Catalysis Analyzed with Dwell Time Correlation Functions and Constrained Mean Dwell Times. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 19074-19081	3.8	10
17	Tackling metal regulation and transport at the single-molecule level. <i>Natural Product Reports</i> , <b>2010</b> , 27, 757-67	15.1	10
16	Quantifying Multistate Cytoplasmic Molecular Diffusion in Bacterial Cells via Inverse Transform of Confined Displacement Distribution. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 14451-9	3.4	9
15	Mechanical stress compromises multicomponent efflux complexes in bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 25462-25467	11.5	9
14	Quantifying Photocurrent Loss of a Single Particle-Particle Interface in Nanostructured Photoelectrodes. <i>Nano Letters</i> , <b>2019</b> , 19, 958-962	11.5	8
13	Exploring Plasmonic Photocatalysis via Single-Molecule Reaction Imaging. <i>Nano Letters</i> , <b>2020</b> , 20, 2939-2949	11.5	6
12	Single-molecule dynamics of the molecular chaperone trigger factor in living cells. <i>Molecular Microbiology</i> , <b>2016</b> , 102, 992-1003	4.1	6
11	Nanoscale cooperative adsorption for materials control. <i>Nature Communications</i> , <b>2021</b> , 12, 4287	17.4	6
10	Inter-facet junction effects on particulate photoelectrodes.. <i>Nature Materials</i> , <b>2021</b> ,	27	6
9	Correlated Single-Molecule Reaction Imaging and Photocurrent Measurements Reveal Underlying Rate Processes in Photoelectrochemical Water Splitting. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, H3286-H3293	3.9	5
8	Single-chain polymerization dynamics and conformational mechanics of conjugated polymers. <i>Chem</i> , <b>2021</b> , 7, 2175-2189	16.2	4

7	Metal-induced sensor mobilization turns on affinity to activate regulator for metal detoxification in live bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 13248-13255	11.5	2
6	Biphasic unbinding of a metalloregulator from DNA for transcription (de)repression in Live Bacteria. <i>Nucleic Acids Research</i> , <b>2020</b> , 48, 2199-2208	20.1	2
5	Single Molecule Fluorescence Methods in Enzymology <b>2010</b> , 751-769		1
4	Stochastic Kinetics of Nanocatalytic Systems. <i>Physical Review Letters</i> , <b>2021</b> , 126, 126001	7.4	1
3	Scanning Electrochemical and Photoelectrochemical Microscopy on Finder Grids: Toward Correlative Multitechnique Imaging of Surfaces. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 5377-5382	7.8	0
2	Real-Time Single-Polymer Growth towards Single-Monomer Resolution. <i>Trends in Chemistry</i> , <b>2021</b> , 3, 318-331	14.8	0
1	Single Molecule Fluorescence Methods in Enzymology <b>2010</b> , 353-367		