

# Chang Min Choi

## List of Publications by Year in descending order

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87  
papers

1,638  
citations

279798

23  
h-index

377865

34  
g-index

90  
all docs

90  
docs citations

90  
times ranked

2421  
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of additional PCBM layer between ZnO and photoactive layers in inverted bulk-heterojunction solar cells. <i>Scientific Reports</i> , 2014, 4, 4306.	3.3	83
2	Towards fabrication of high-performing organic photovoltaics: new donor-polymer, atomic layer deposited thin buffer layer and plasmonic effects. <i>Energy and Environmental Science</i> , 2012, 5, 9803.	30.8	78
3	Transparent and superhydrophobic films prepared with polydimethylsiloxane-coated silica nanoparticles. <i>RSC Advances</i> , 2013, 3, 12571.	3.6	66
4	Ultrathin TiO <sub>2</sub> Films on ZnO Electron-Collecting Layers of Inverted Organic Solar Cell. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21517-21520.	3.1	65
5	Tandem ion mobility spectrometry coupled to laser excitation. <i>Review of Scientific Instruments</i> , 2015, 86, 094101.	1.3	58
6	CO oxidation catalyzed by NiO supported on mesoporous Al <sub>2</sub> O <sub>3</sub> at room temperature. <i>Chemical Engineering Journal</i> , 2016, 283, 992-998.	12.7	51
7	Revealing the Synergy of Cation and Anion Vacancies on Improving Overall Water Splitting Kinetics. <i>Advanced Functional Materials</i> , 2021, 31, 2010718.	14.9	48
8	Conformational Dynamics in Ion Mobility Data. <i>Analytical Chemistry</i> , 2017, 89, 4230-4237.	6.5	46
9	Low Temperature CO oxidation over Iron Oxide Nanoparticles Decorating Internal Structures of a Mesoporous Alumina. <i>Scientific Reports</i> , 2017, 7, 40497.	3.3	38
10	Influence of surface roughness of aluminum-doped zinc oxide buffer layers on the performance of inverted organic solar cells. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	37
11	Conformational changes in amyloid-beta (12-28) alloforms studied using action-FRET, IMS and molecular dynamics simulations. <i>Chemical Science</i> , 2015, 6, 5040-5047.	7.4	37
12	Oil-Water Separation Using Superhydrophobic PET Membranes Fabricated Via Simple Dip-Coating Of PDMS-SiO <sub>2</sub> Nanoparticles. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1700218.	3.6	37
13	Room temperature CO oxidation catalyzed by NiO particles on mesoporous SiO <sub>2</sub> prepared via atomic layer deposition: Influence of pre-annealing temperature on catalytic activity. <i>Journal of Molecular Catalysis A</i> , 2016, 414, 87-93.	4.8	32
14	Emissive Nanoclusters Based on Subnanometer-Sized Au <sub>38</sub> Cores for Boosting the Performance of Inverted Organic Photovoltaic Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500393.	19.5	31
15	Facile Mechanochemical Synthesis of Malleable Biomass-Derived Network Polyurethanes and Their Shape-Memory Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6952-6961.	6.7	31
16	Quenching of photocatalytic activity and enhancement of photostability of ZnO particles by polydimethylsiloxane coating. <i>Journal of Materials Science</i> , 2012, 47, 5190-5196.	3.7	28
17	Fabrication of conductive, transparent and superhydrophobic thin films consisting of multi-walled carbon nanotubes. <i>RSC Advances</i> , 2014, 4, 30368.	3.6	28
18	Structural Effect of Thioureas on the Detection of Chemical Warfare Agent Simulants. <i>ACS Sensors</i> , 2017, 2, 1146-1151.	7.8	27



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37	Studies of degradation behaviors of poly (3-hexylthiophene) layers by X-ray photoelectron spectroscopy. <i>Surface and Interface Analysis</i> , 2014, 46, 544-549.	1.8	17
38	Charge, Color, and Conformation: Spectroscopy on Isomer-Selected Peptide Ions. <i>Journal of Physical Chemistry B</i> , 2016, 120, 709-714.	2.6	17
39	Engineering Interface on a 3D Co <sub>2</sub> Ni(OH) <sub>2</sub> @MoS <sub>2</sub> Hollow Heterostructure for Robust Electrocatalytic Hydrogen Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 9116-9125.	8.0	17
40	Temperature regulated-chemical vapor deposition for incorporating NiO nanoparticles into mesoporous media. <i>Applied Surface Science</i> , 2016, 385, 597-604.	6.1	16
41	Action-FRET of a Gaseous Protein. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 38-49.	2.8	16
42	Excited States of Xanthene Analogues: Photofragmentation and Calculations by CC2 and Time-Dependent Density Functional Theory. <i>ChemPhysChem</i> , 2016, 17, 3129-3138.	2.1	15
43	Surface Modification of TiO <sub>2</sub> for Obtaining High Resistance against Poisoning during Photocatalytic Decomposition of Toluene. <i>Catalysts</i> , 2018, 8, 500.	3.5	15
44	Superhydrophobic Fabric Resistant to an Aqueous Surfactant Solution as Well as Pure Water for the Selective Removal of Spill Oil. <i>ACS Applied Nano Materials</i> , 2018, 1, 5158-5168.	5.0	15
45	Core-Shell Structured Cobalt Sulfide/Cobalt Aluminum Hydroxide Nanosheet Arrays for Pseudocapacitor Application. <i>Chemistry - an Asian Journal</i> , 2019, 14, 446-453.	3.3	15
46	Organic photovoltaics with high stability sustained for 100 days without encapsulation fabricated using atomic layer deposition. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 196-198.	2.4	14
47	Ultrathin polydimethylsiloxane-coated carbonyl iron particles and their magnetorheological characteristics. <i>Colloid and Polymer Science</i> , 2012, 290, 1093-1098.	2.1	14
48	Reactivity and Stability of Ni Nanoparticles Supported by Mesoporous SiO <sub>2</sub> and TiO <sub>2</sub> /SiO <sub>2</sub> for CO <sub>2</sub> Reforming of CH <sub>4</sub> . <i>Catalysis Letters</i> , 2014, 144, 56-61.	2.6	14
49	Initial Stage of Photoinduced Oxidation of Poly(3-hexylthiophene-2,5-diyl) Layers on ZnO under Dry and Humid Air. <i>Journal of Physical Chemistry C</i> , 2014, 118, 3483-3489.	3.1	14
50	Photocatalytic activity of Fe-loaded TiO <sub>2</sub> particles towards NO oxidation: Influence of the intrinsic structures, operating conditions, and synergic effects of the surface hardening agent. <i>Construction and Building Materials</i> , 2021, 296, 123763.	7.2	14
51	Fabrication of superhydrophobic surfaces using structured colloids. <i>Korean Journal of Chemical Engineering</i> , 2013, 30, 1142-1152.	2.7	13
52	The structure of chromophore-grafted amyloid-β <sub>12</sub> dimers in the gas-phase: FRET-experiment guided modelling. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9061-9069.	2.8	12
53	Superhydrophobic, flexible and gas-permeable membrane prepared by a simple one-step vapor deposition. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1743-1748.	2.7	11
54	Reduction of NO by CO catalyzed by Fe-oxide/Al <sub>2</sub> O <sub>3</sub> : Strong catalyst-support interaction for enhanced catalytic activity. <i>Applied Surface Science</i> , 2020, 509, 145300.	6.1	11

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55	Unveiling a Three Phase Mixed Heterojunction via Phase-Selective Anchoring of Polymer for Efficient Photocatalysis. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	11
56	Peptide-based bimetallic nanostructures with tailored surface compositions and their oxygen electroreduction activities. <i>CrystEngComm</i> , 2016, 18, 6024-6028.	2.6	10
57	Impact of humidity on the removal of volatile organic compounds over Fe loaded TiO <sub>2</sub> under visible light irradiation: Insight into photocatalysis mechanism by operando DRIFTS. <i>Materials Today Communications</i> , 2021, 26, 102119.	1.9	10
58	Action-Self Quenching: Dimer-Induced Fluorescence Quenching of Chromophores as a Probe for Biomolecular Structure. <i>Analytical Chemistry</i> , 2017, 89, 4604-4610.	6.5	9
59	Comparative Studies of Mesoporous Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> and Fe <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> Fabricated by Temperature-Regulated Chemical Vapour Deposition as Catalysts for Acetaldehyde Oxidation. <i>Catalysis Letters</i> , 2018, 148, 454-464.	2.6	9
60	Enhanced removal efficiency of toluene over activated carbon under visible light. <i>Journal of Hazardous Materials</i> , 2021, 418, 126317.	12.4	9
61	Adsorbent/catalyst bi-functional Fe-ZSM-5 prepared by a simple CVD process for exhaust gas treatment. <i>Applied Surface Science</i> , 2022, 574, 151565.	6.1	9
62	Influence of electron-beam treatment of TiO <sub>2</sub> /Ti on properties of deposited Pt films. <i>Surface and Interface Analysis</i> , 2010, 42, 927-930.	1.8	8
63	Plasma-Assisted Non-Oxidative Conversion of Methane over Mo/HZSM-5 Catalyst in DBD Reactor. <i>Topics in Catalysis</i> , 2017, 60, 735-742.	2.8	8
64	Binding thiourea derivatives with dimethyl methylphosphonate for sensing nerve agents. <i>RSC Advances</i> , 2019, 9, 10693-10701.	3.6	8
65	Annealing Temperature-Dependent Effects of Fe-Loading on the Visible Light-Driven Photocatalytic Activity of Rutile TiO <sub>2</sub> Nanoparticles and Their Applicability for Air Purification. <i>Catalysts</i> , 2020, 10, 739.	3.5	8
66	Visible-Light-Induced Oxidation of Poly(3-hexylthiophene-2,5-diyl) Thin Films on ZnO Surfaces under Humid Conditions: Study of Light Wavelength Dependence. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19942-19950.	3.1	7
67	Unveiling the Complexity of the Degradation Mechanism of Semiconducting Organic Polymers: Visible-Light-Induced Oxidation of P3HT Films on ZnO/ITO under Atmospheric Conditions. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18692-18701.	3.1	6
68	Secondary ion mass spectrometry (SIMS) with Bi <sup>3+</sup> primary ions as a sensitive probe of surface structures of heterogeneous catalysts. <i>International Journal of Mass Spectrometry</i> , 2018, 433, 47-54.	1.5	6
69	Ion mobility resolved photo-fragmentation to discriminate protomers. <i>Rapid Communications in Mass Spectrometry</i> , 2019, 33, 28-34.	1.5	6
70	Preparation of ZnO/Al <sub>2</sub> O <sub>3</sub> catalysts by using atomic layer deposition for plasma-assisted non-oxidative methane coupling. <i>Journal of the Korean Physical Society</i> , 2016, 68, 1221-1227.	0.7	5
71	Photo-induced linkage isomerization in the gas phase probed by tandem ion mobility and laser spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 12223-12228.	2.8	5
72	Dynamic secondary ion mass spectroscopy of Au nanoparticles on Si wafer using Bi <sup>3+</sup> as primary ion coupled with surface etching by Ar cluster ion beam: The effect of etching conditions on surface structure. <i>Journal of Applied Physics</i> , 2018, 123, 015303.	2.5	5

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73	TOF-SIMS Analysis Using Bi <sup>3+</sup> as Primary Ions on Au Nanoparticles Supported by SiO <sub>2</sub> /Si: Providing Insight into Metal-Support Interactions. ACS Omega, 2019, 4, 13100-13105.	3.5	5
74	Positive Effects of Impregnation of Fe-oxide in Mesoporous Al-Oxides on the Decontamination of Dimethyl Methylphosphonate. Catalysts, 2019, 9, 898.	3.5	5
75	The nano-fractal structured tungsten oxides films with high thermal stability prepared by the deposition of size-selected W clusters. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	5
76	Surface Structures of Fe-TiO <sub>2</sub> Photocatalysts for NO Oxidation. ACS Applied Materials & Interfaces, 2022, 14, 24028-24038.	8.0	5
77	Synthesis of ZnO nanoparticles by spray-pyrolysis method and their photocatalytic effect. , 2010, , .		4
78	Porous Silica Particles as Oil Absorbents: Comparison of Meso-, Macro-, and Meso/Macro-Structures. Bulletin of the Korean Chemical Society, 2015, 36, 1751-1757.	1.9	4
79	Oxidized Ni Nanostructures Supported by Mesoporous Al <sub>2</sub> O <sub>3</sub> : Relationship between the Structure and Reactivity for CO Oxidation Studied via Photoemission Spectroscopy. Bulletin of the Korean Chemical Society, 2016, 37, 674-679.	1.9	4
80	Atomic Layer Deposition for Preparation of Highly Efficient Catalysts for Dry Reforming of Methane. Catalysts, 2019, 9, 266.	3.5	4
81	Kinetic study of azobenzene <i>E/Z</i> isomerization using ion mobility-mass spectrometry and liquid chromatography-UV detection. Analyst, The, 2020, 145, 4012-4020.	3.5	4
82	Surface Modulation of 3D Porous CoNiP Nanoarrays In Situ Grown on Nickel Foams for Robust Overall Water Splitting. International Journal of Molecular Sciences, 2022, 23, 5290.	4.1	2
83	Study on the changes of surface property of grown C-TiO <sub>2</sub> films by O <sub>2</sub> plasma treatment. , 2010, , .		0
84	Changes in the surface structure of Pd/Ta <sub>2</sub> O <sub>5</sub> by oxygen and CO studied using X-ray Photoelectron Spectroscopy (XPS). Surface and Interface Analysis, 2011, 43, 1371-1376.	1.8	0
85	Excited States of Xanthene Analogues: Photofragmentation and Calculations by CC2 and Time-Dependent Density Functional Theory. ChemPhysChem, 2016, 17, 2951-2951.	2.1	0
86	Extreme size dependence of the oxidation behavior of molybdenum clusters. AIP Conference Proceedings, 2018, , .	0.4	0
87	Ga-ion beam surface modification of glass using a custom-built liquid metal ion beam. Journal of Applied Physics, 2022, 131, 014901.	2.5	0