

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
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90
all docs

90
docs citations

90
times ranked

2421
citing authors

#	ARTICLE	IF	CITATIONS
1	Adsorbent/catalyst bi-functional Fe-ZSM-5 prepared by a simple CVD process for exhaust gas treatment. Applied Surface Science, 2022, 574, 151565.	6.1	9
2	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
3	Engineering Interface on a 3D Co ₃ Ni(OH) ₂ @MoS ₂ Hollow Heterostructure for Robust Electrocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2022, 14, 9116-9125.	8.0	17
4	Unveiling a Three Phase Mixed Heterojunction via Phase-Selective Anchoring of Polymer for Efficient Photocatalysis. Advanced Energy Materials, 2022, 12, .	19.5	11
5	Fe-oxide/Al ₂ O ₃ for the enhanced activity of H ₂ S decomposition under realistic conditions: Mechanistic studies by in-situ DRIFTS and XPS. Chemical Engineering Journal, 2022, 443, 136459.	12.7	18
6	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
7	Surface Structures of Fe-TiO ₂ Photocatalysts for NO Oxidation. ACS Applied Materials & Interfaces, 2022, 14, 24028-24038.	8.0	5
8	Impact of humidity on the removal of volatile organic compounds over Fe loaded TiO ₂ under visible light irradiation: Insight into photocatalysis mechanism by operando DRIFTS. Materials Today Communications, 2021, 26, 102119.	1.9	10
9	Revealing the Synergy of Cation and Anion Vacancies on Improving Overall Water Splitting Kinetics. Advanced Functional Materials, 2021, 31, 2010718.	14.9	48
10	Facile Mechanochemical Synthesis of Malleable Biomass-Derived Network Polyurethanes and Their Shape-Memory Applications. ACS Sustainable Chemistry and Engineering, 2021, 9, 6952-6961.	6.7	31
11	Photocatalytic activity of Fe-loaded TiO ₂ particles towards NO oxidation: Influence of the intrinsic structures, operating conditions, and synergic effects of the surface hardening agent. Construction and Building Materials, 2021, 296, 123763.	7.2	14
12	Enhanced removal efficiency of toluene over activated carbon under visible light. Journal of Hazardous Materials, 2021, 418, 126317.	12.4	9
13	Annealing Temperature-Dependent Effects of Fe-Loading on the Visible Light-Driven Photocatalytic Activity of Rutile TiO ₂ Nanoparticles and Their Applicability for Air Purification. Catalysts, 2020, 10, 739.	3.5	8
14	Reduction of NO by CO catalyzed by Fe-oxide/Al ₂ O ₃ : Strong catalyst-support interaction for enhanced catalytic activity. Applied Surface Science, 2020, 509, 145300.	6.1	11
15	Kinetic study of azobenzene E/Z isomerization using ion mobility-mass spectrometry and liquid chromatography-UV detection. Analyst, The, 2020, 145, 4012-4020.	3.5	4
16	Ion mobility resolved photo-fragmentation to discriminate protomers. Rapid Communications in Mass Spectrometry, 2019, 33, 28-34.	1.5	6
17	TOF-SIMS Analysis Using Bi ₃ ⁺ as Primary Ions on Au Nanoparticles Supported by SiO ₂ /Si: Providing Insight into Metal-Support Interactions. ACS Omega, 2019, 4, 13100-13105.	3.5	5
18	Core-Shell Structured Cobalt Sulfide/Cobalt Aluminum Hydroxide Nanosheet Arrays for Pseudocapacitor Application. Chemistry - an Asian Journal, 2019, 14, 446-453.	3.3	15

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19	Mesoporous SiO ₂ Particles Combined with Fe Oxide Nanoparticles as a Regenerative Methylene Blue Adsorbent. ACS Omega, 2019, 4, 9745-9755.	3.5	21
20	Atomic Layer Deposition for Preparation of Highly Efficient Catalysts for Dry Reforming of Methane. Catalysts, 2019, 9, 266.	3.5	4
21	Adsorption and Oxidative Desorption of Acetaldehyde over Mesoporous Fe _x O _y /H _z /Al ₂ O ₃ . ACS Omega, 2019, 4, 5382-5391.	3.5	20
22	Binding thiourea derivatives with dimethyl methylphosphonate for sensing nerve agents. RSC Advances, 2019, 9, 10693-10701.	3.6	8
23	Positive Effects of Impregnation of Fe-oxide in Mesoporous Al-Oxides on the Decontamination of Dimethyl Methylphosphonate. Catalysts, 2019, 9, 898.	3.5	5
24	Photo-induced linkage isomerization in the gas phase probed by tandem ion mobility and laser spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 12223-12228.	2.8	5
25	Dynamic secondary ion mass spectroscopy of Au nanoparticles on Si wafer using Bi ³⁺ as primary ion coupled with surface etching by Ar cluster ion beam: The effect of etching conditions on surface structure. Journal of Applied Physics, 2018, 123, 015303.	2.5	5
26	Comparative Studies of Mesoporous Fe ₂ O ₃ /Al ₂ O ₃ and Fe ₂ O ₃ /SiO ₂ Fabricated by Temperature-Regulated Chemical Vapour Deposition as Catalysts for Acetaldehyde Oxidation. Catalysis Letters, 2018, 148, 454-464.	2.6	9
27	Surface Modification of TiO ₂ for Obtaining High Resistance against Poisoning during Photocatalytic Decomposition of Toluene. Catalysts, 2018, 8, 500.	3.5	15
28	Secondary ion mass spectrometry (SIMS) with Bi ³⁺ primary ions as a sensitive probe of surface structures of heterogeneous catalysts. International Journal of Mass Spectrometry, 2018, 433, 47-54.	1.5	6
29	Peptide-Programmable Nanoparticle Superstructures with Tailored Electrocatalytic Activity. ACS Nano, 2018, 12, 6554-6562.	14.6	19
30	Superhydrophobic Fabric Resistant to an Aqueous Surfactant Solution as Well as Pure Water for the Selective Removal of Spill Oil. ACS Applied Nano Materials, 2018, 1, 5158-5168.	5.0	15
31	Extreme size dependence of the oxidation behavior of molybdenum clusters. AIP Conference Proceedings, 2018, , .	0.4	0
32	Conformational Dynamics in Ion Mobility Data. Analytical Chemistry, 2017, 89, 4230-4237.	6.5	46
33	Low Temperature CO oxidation over Iron Oxide Nanoparticles Decorating Internal Structures of a Mesoporous Alumina. Scientific Reports, 2017, 7, 40497.	3.3	38
34	Plasma-Assisted Non-Oxidative Conversion of Methane over Mo/HZSM-5 Catalyst in DBD Reactor. Topics in Catalysis, 2017, 60, 735-742.	2.8	8
35	Gas-Phase Structural and Optical Properties of Homo- and Heterobimetallic Rhombic Dodecahedral Nanoclusters [Ag ₁₄ Cu _n (Câ€¦t/Bu) ₁₂ X] ⁺ (X = Cl, I) ETQq19 0.7843 2017, 121, 10719-10727.	0.7843	0
36	Action-Self Quenching: Dimer-Induced Fluorescence Quenching of Chromophores as a Probe for Biomolecular Structure. Analytical Chemistry, 2017, 89, 4604-4610.	6.5	9

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37	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
38	Oil- H_2O Separation Using Superhydrophobic PET Membranes Fabricated Via Simple Dip-Coating Of PDMS- SiO_2 Nanoparticles. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1700218.	3.6	37
39	Structural Effect of Thioureas on the Detection of Chemical Warfare Agent Simulants. <i>ACS Sensors</i> , 2017, 2, 1146-1151.	7.8	27
40	Photo-catalytic activity of hydrophilic-modified TiO_2 for the decomposition of methylene blue and phenol. <i>Current Applied Physics</i> , 2017, 17, 1557-1563.	2.4	18
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	The nano-fractal structured tungsten oxides films with high thermal stability prepared by the deposition of size-selected W clusters. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	2.3	5
43	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
44	Peptide-based bimetallic nanostructures with tailored surface compositions and their oxygen electroreduction activities. <i>CrystEngComm</i> , 2016, 18, 6024-6028.	2.6	10
45	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
46	Excited States of Xanthene Analogues: Photofragmentation and Calculations by CC2 and Time-Dependent Density Functional Theory. <i>ChemPhysChem</i> , 2016, 17, 2951-2951.	2.1	0
47	Temperature regulated-chemical vapor deposition for incorporating NiO nanoparticles into mesoporous media. <i>Applied Surface Science</i> , 2016, 385, 597-604.	6.1	16
48	Preparation of ZnO/Al $_2$ O $_3$ 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
49	Oxidized Ni Nanostructures Supported by Mesoporous Al $_2$ O $_3$: Relationship between the Structure and Reactivity for CO Oxidation Studied via Photoemission Spectroscopy. <i>Bulletin of the Korean Chemical Society</i> , 2016, 37, 674-679.	1.9	4
50	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
51	The structure of chromophore-grafted amyloid- β dimers in the gas-phase: FRET-experiment guided modelling. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9061-9069.	2.8	12
52	Room temperature CO oxidation catalyzed by NiO particles on mesoporous SiO $_2$ 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
53	Charge, Color, and Conformation: Spectroscopy on Isomer-Selected Peptide Ions. <i>Journal of Physical Chemistry B</i> , 2016, 120, 709-714.	2.6	17
54	CO oxidation catalyzed by NiO supported on mesoporous Al $_2$ O $_3$ at room temperature. <i>Chemical Engineering Journal</i> , 2016, 283, 992-998.	12.7	51

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55	Tandem ion mobility spectrometry coupled to laser excitation. Review of Scientific Instruments, 2015, 86, 094101.	1.3	58
56	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
57	Conformational changes in amyloid-beta (12-28) alloforms studied using action-FRET, IMS and molecular dynamics simulations. Chemical Science, 2015, 6, 5040-5047.	7.4	37
58	Fabrication of superhydrophobic thin films on various substrates using SiO ₂ nanoparticles coated with polydimethylsiloxane: towards the development of shielding layers for gas sensors. RSC Advances, 2015, 5, 40595-40602.	3.6	24
59	Emissive Nanoclusters Based on Subnanometer-Sized Au ₃₈ Cores for Boosting the Performance of Inverted Organic Photovoltaic Cells. Advanced Energy Materials, 2015, 5, 1500393.	19.5	31
60	Reactivity and Stability of Ni Nanoparticles Supported by Mesoporous SiO ₂ and TiO ₂ /SiO ₂ for CO ₂ Reforming of CH ₄ . Catalysis Letters, 2014, 144, 56-61.	2.6	14
61	Initial Stage of Photoinduced Oxidation of Poly(3-hexylthiophene-2,5-diyl) Layers on ZnO under Dry and Humid Air. Journal of Physical Chemistry C, 2014, 118, 3483-3489.	3.1	14
62	Fabrication of conductive, transparent and superhydrophobic thin films consisting of multi-walled carbon nanotubes. RSC Advances, 2014, 4, 30368.	3.6	28
63	Studies of degradation behaviors of poly(3-hexylthiophene) layers by X-ray photoelectron spectroscopy. Surface and Interface Analysis, 2014, 46, 544-549.	1.8	17
64	Role of additional PCBM layer between ZnO and photoactive layers in inverted bulk-heterojunction solar cells. Scientific Reports, 2014, 4, 4306.	3.3	83
65	Adsorption and desorption of toluene on nanoporous TiO ₂ /SiO ₂ prepared by atomic layer deposition (ALD): influence of TiO ₂ thin film thickness and humidity. Adsorption, 2013, 19, 1181-1187.	3.0	19
66	Fabrication of superhydrophobic surfaces using structured colloids. Korean Journal of Chemical Engineering, 2013, 30, 1142-1152.	2.7	13
67	Redox-buffer effect of Fe ²⁺ ions on the selective olefin/paraffin separation and hydrogen tolerance of a Cu ⁺ -based mesoporous adsorbent. Journal of Materials Chemistry A, 2013, 1, 6653.	10.3	22
68	Transparent and superhydrophobic films prepared with polydimethylsiloxane-coated silica nanoparticles. RSC Advances, 2013, 3, 12571.	3.6	66
69	Towards fabrication of high-performing organic photovoltaics: new donor-polymer, atomic layer deposited thin buffer layer and plasmonic effects. Energy and Environmental Science, 2012, 5, 9803.	30.8	78
70	Organic Solar Cells Fabricated by One-Step Deposition of a Bulk Heterojunction Mixture and TiO ₂ /NiO Hole-Collecting Agents. Journal of Physical Chemistry C, 2012, 116, 15348-15352.	3.1	21
71	Organic photovoltaics with high stability sustained for 100 days without encapsulation fabricated using atomic layer deposition. Physica Status Solidi - Rapid Research Letters, 2012, 6, 196-198.	2.4	14
72	Ultrathin polydimethylsiloxane-coated carbonyl iron particles and their magnetorheological characteristics. Colloid and Polymer Science, 2012, 290, 1093-1098.	2.1	14

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73	Quenching of photocatalytic activity and enhancement of photostability of ZnO particles by polydimethylsiloxane coating. Journal of Materials Science, 2012, 47, 5190-5196.	3.7	28
74	Superhydrophobic carbon fiber surfaces prepared by growth of carbon nanostructures and polydimethylsiloxane coating. Macromolecular Research, 2012, 20, 216-219.	2.4	25
75	Oxidation of Toluene on Bare and TiO ₂ -Covered NiO-Ni(OH) ₂ Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 22954-22959.	3.1	24
76	Ultrathin TiO ₂ Films on ZnO Electron-Collecting Layers of Inverted Organic Solar Cell. Journal of Physical Chemistry C, 2011, 115, 21517-21520.	3.1	65
77	TiO ₂ /Ni Inverse-Catalysts Prepared by Atomic Layer Deposition (ALD). Catalysis Letters, 2011, 141, 854-859.	2.6	24
78	Changes in the surface structure of Pd/Ta ₂ O ₅ by oxygen and CO studied using X-ray Photoelectron Spectroscopy (XPS). Surface and Interface Analysis, 2011, 43, 1371-1376.	1.8	0
79	Controlling the self-doping of epitaxial graphene on SiC via Ar ion treatment. Physical Review B, 2011, 84, .	3.2	23
80	Influence of surface roughness of aluminum-doped zinc oxide buffer layers on the performance of inverted organic solar cells. Applied Physics Letters, 2011, 98, .	3.3	37
81	CO Oxidation of Au-Pt Nanostructures: Enhancement of Catalytic Activity of Pt Nanoparticles by Au. Catalysis Letters, 2010, 134, 45-50.	2.6	23
82	Enhancement of Photocatalytic Activity of TiO ₂ by High-Energy Electron-Beam Treatment Under Atmospheric Pressure. Catalysis Letters, 2010, 135, 57-61.	2.6	20
83	Adsorption and Photocatalytic Decomposition of Toluene on TiO ₂ Surfaces. Catalysis Letters, 2010, 138, 76-81.	2.6	17
84	Influence of electron-beam treatment of TiO ₂ /Ti on properties of deposited Pt films. Surface and Interface Analysis, 2010, 42, 927-930.	1.8	8
85	Synthesis of ZnO nanoparticles by spray-pyrolysis method and their photocatalytic effect. , 2010, , .		4
86	Study on the changes of surface property of grown C-TiO ₂ films by O ₂ plasma treatment. , 2010, , .		0
87	Pentacene as protection layers of graphene on SiC surfaces. Applied Physics Letters, 2009, 95, 093107.	3.3	19