

Soonchul Kwon

List of Publications by Year in descending order

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46
papers

1,299
citations

566801

15
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360668

35
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docs citations

46
times ranked

2481
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon carbide-free graphene growth on silicon for lithium-ion battery with high volumetric energy density. <i>Nature Communications</i> , 2015, 6, 7393.	5.8	449
2	Photocatalytic Applications of Micro- and Nano-TiO ₂ in Environmental Engineering. <i>Critical Reviews in Environmental Science and Technology</i> , 2008, 38, 197-226.	6.6	182
3	Mechanisms of Na adsorption on graphene and graphene oxide: density functional theory approach. <i>Carbon Letters</i> , 2015, 16, 116-120.	3.3	84
4	Factors affecting the direct mineralization of CO ₂ with olivine. <i>Journal of Environmental Sciences</i> , 2011, 23, 1233-1239.	3.2	48
5	Active Methanol Oxidation Reaction by Enhanced CO Tolerance on Bimetallic Pt/Ir Electrocatalysts Using Electronic and Bifunctional Effects. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 39581-39589.	4.0	43
6	Tunable Electronic Properties of Nitrogen and Sulfur Doped Graphene: Density Functional Theory Approach. <i>Nanomaterials</i> , 2019, 9, 268.	1.9	39
7	A density functional theory (DFT) study of CO ₂ adsorption on Mg-rich minerals by enhanced charge distribution. <i>Computational Materials Science</i> , 2014, 95, 181-186.	1.4	32
8	Enhanced Electrochemical Stability of Quasi-Solid-State Electrolyte Containing SiO ₂ Nanoparticles for Li-O ₂ Battery Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 1344-1350.	4.0	32
9	Flexible free-standing air electrode with bimodal pore architecture for long-cycling Li-O ₂ batteries. <i>Carbon</i> , 2017, 117, 454-461.	5.4	31
10	Reaction Kinetics of CO ₂ Carbonation with Mg-Rich Minerals. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7638-7644.	1.1	28
11	Graphene Coating of Silicon Nanoparticles with CO ₂ -Enhanced Chemical Vapor Deposition. <i>Small</i> , 2016, 12, 658-667.	5.2	27
12	Transient color changes in oxidative-stable fluorinated polyimide film for flexible display substrates. <i>RSC Advances</i> , 2015, 5, 57339-57345.	1.7	26
13	Enhanced Electrochemical Stability of a Zwitterionic-Polymer-Functionalized Electrode for Capacitive Deionization. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6207-6217.	4.0	26
14	Adsorption mechanisms of lithium oxides (Li ₂ O) on N-doped graphene: a density functional theory study with implications for lithium-air batteries. <i>Theoretical Chemistry Accounts</i> , 2016, 135, 1.	0.5	22
15	Toward enhanced CO ₂ adsorption on bimodal calcium-based materials with porous truncated architectures. <i>Applied Surface Science</i> , 2020, 505, 144512.	3.1	20
16	CO ₂ Adsorption on H ₂ O-Saturated BaO (100) and Induced Barium Surface Dissociation. <i>Bulletin of the Korean Chemical Society</i> , 2015, 36, 11-16.	1.0	15
17	Enhanced competitive adsorption of CO ₂ and H ₂ on graphyne: A density functional theory study. <i>AIP Advances</i> , 2017, 7, .	0.6	15
18	Enhanced Selectivity for CO ₂ Adsorption on Mesoporous Silica with Alkali Metal Halide Due to Electrostatic Field: A Molecular Simulation Approach. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31683-31690.	4.0	14

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19	Enhanced H ₂ dissociative phenomena of Pt-Ir electrocatalysts for PEMFCs: an integrated experimental and theoretical study. <i>RSC Advances</i> , 2015, 5, 54941-54946.	1.7	12
20	Wave attenuation prediction of artificial coral reef using machine-learning integrated with hydraulic experiment. <i>Ocean Engineering</i> , 2022, 248, 110324.	1.9	12
21	Film shrinkage inducing strong chain entanglement in fluorinated polyimide. <i>Polymer</i> , 2015, 68, 293-301.	1.8	11
22	Predictive Guide for Collective CO ₂ Adsorption Properties of Mg-Al Mixed Oxides. <i>ChemSusChem</i> , 2017, 10, 1701-1709.	3.6	11
23	Correlation of stress and optical properties in highly transparent polyimides for future flexible display. <i>Macromolecular Research</i> , 2017, 25, 971-975.	1.0	11
24	Mg Ion Inversion in MgO@MgO-Al ₂ O ₃ Oxides: The Origin of Basic Sites. <i>ChemSusChem</i> , 2019, 12, 2810-2818.	3.6	11
25	Improved Coastal Erosion Prevention Using a Hybrid Method with an Artificial Coral Reef: Large-Scale 3D Hydraulic Experiment. <i>Water (Switzerland)</i> , 2020, 12, 2801.	1.2	11
26	Effect of fluorination on haze reduction in transparent polyimide films for flexible substrates. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	10
27	Substrate Effect of Platinum-Decorated Carbon on Enhanced Hydrogen Oxidation in PEMFC. <i>ACS Omega</i> , 2020, 5, 26902-26907.	1.6	10
28	Induced Infiltration of Hole-Transporting Polymer into Photocatalyst for Staunch Polymer-Metal Oxide Hybrid Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25915-25922.	4.0	8
29	Density functional theory approach to CO ₂ adsorption on a spinel mineral: determination of binding coordination. <i>RSC Advances</i> , 2016, 6, 28607-28611.	1.7	8
30	Effect of bimodal surface modification of graphyne on enhanced H ₂ storage: Density functional theory study. <i>AIP Advances</i> , 2018, 8, 115034.	0.6	8
31	Influence of defective sites in Pt/C catalysts on the anode of direct methanol fuel cell and their role in CO poisoning: a first-principles study. <i>Carbon Letters</i> , 2015, 16, 198-202.	3.3	7
32	Prediction of Wave Transmission Characteristics of Low-Crested Structures with Comprehensive Analysis of Machine Learning. <i>Sensors</i> , 2021, 21, 8192.	2.1	6
33	Lower Tropospheric Aerosol Measurements by MAX-DOAS During Severe Asian Dust Period. <i>Aerosol Science and Technology</i> , 2009, 43, 1208-1217.	1.5	4
34	Development of hydrophilicity on the proton exchange using sulfonic acid on PEEK in the presence of water: a density functional theory study. <i>Theoretical Chemistry Accounts</i> , 2017, 136, 1.	0.5	4
35	Influence of Sulfonic Acid Group on Sulfonated Polyethersulfone Membrane for PEM Fuel Cell: A First-Principles Study. <i>Bulletin of the Korean Chemical Society</i> , 2015, 36, 2116-2119.	1.0	3
36	Bromination effect of polybrominated diphenyl ethers on the graphyne surface on enhanced adsorption characteristics using density functional theory study. <i>AIP Advances</i> , 2020, 10, .	0.6	3

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37	The Enhanced Mitigation of Coastal Erosion Using the Artificial Coral Reefs. Journal of Coastal Research, 2019, 91, 11.	0.1	3
38	Study on the Permeability and TSS Removal Efficiency of Permeable Pavement Using Constant Head Particle Loading Test. Journal of Coastal Research, 2019, 91, 236.	0.1	3
39	Induced application of biological waste Escherichia coli functionalized with an amine-based polymer for CO ₂ capture. RSC Advances, 2016, 6, 77535-77544.	1.7	2
40	Study on Wave Reduction and Beach sand Capture Performance of Artificial Coral Reefs for In-situ Application. Journal of Ocean Engineering and Technology, 2018, 32, 485-491.	0.5	2
41	A Review on the Building Wind Impact through On-site Monitoring in Haeundae Marine City: 2021 12th Typhoon OMAIS Case Study. Journal of Ocean Engineering and Technology, 2021, 35, 414-425.	0.5	2
42	Intrinsic Kinetics of Platy Hydrated Magnesium Silicate (Talc) for Geological CO ₂ Sequestration: Determination of Activation Barrier. Industrial & Engineering Chemistry Research, 2014, 53, 16523-16528.	1.8	1
43	Application of the Artificial Coral Reef as a Coastal Erosion Prevention Method with Numerical-Physical Combined Analysis (Case study: Cheonjin-Bongpo beach, Kangwon province, South) Tj ETQq1 10.5784314rgBT /O		
44	Planar Installation Characteristics of Crown Depth-Variable Artificial Coral Reef on Improving Coastal Resilience: A 3D Large-Scale Experiment. Water (Switzerland), 2021, 13, 1526.	1.2	1
45	Permeable Coastal Pavement Structure for Shore Protection and Removal of Non-point Source Pollutants. Journal of Ocean Engineering and Technology, 2019, 33, 597-606.	0.5	1
46	THE STUDY ON THE EFFECT OF COASTAL EROSION MITIGATION USING ARTIFICIAL CORAL REEF " UNDERSTANDING WITH 3 DIMENSIONAL HYDRAULIC EXPERIMENT. , 2019, , .		0