## Soonchul Kwon

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Silicon carbide-free graphene growth on silicon for lithium-ion battery with high volumetric energy density. Nature Communications, 2015, 6, 7393.	12.8	449
2	Photocatalytic Applications of Micro- and Nano-TiO <sub>2</sub> in Environmental Engineering. Critical Reviews in Environmental Science and Technology, 2008, 38, 197-226.	12.8	182
3	Mechanisms of Na adsorption on graphene and graphene oxide: density functional theory approach. Carbon Letters, 2015, 16, 116-120.	5.9	84
4	Factors affecting the direct mineralization of CO2 with olivine. Journal of Environmental Sciences, 2011, 23, 1233-1239.	6.1	48
5	Active Methanol Oxidation Reaction by Enhanced CO Tolerance on Bimetallic Pt/Ir Electrocatalysts Using Electronic and Bifunctional Effects. ACS Applied Materials & Interfaces, 2018, 10, 39581-39589.	8.0	43
6	Tunable Electronic Properties of Nitrogen and Sulfur Doped Graphene: Density Functional Theory Approach. Nanomaterials, 2019, 9, 268.	4.1	39
7	A density functional theory (DFT) study of CO2 adsorption on Mg-rich minerals by enhanced charge distribution. Computational Materials Science, 2014, 95, 181-186.	3.0	32
8	Enhanced Electrochemical Stability of Quasi-Solid-State Electrolyte Containing SiO <sub>2</sub> Nanoparticles for Li-O <sub>2</sub> Battery Applications. ACS Applied Materials & Interfaces, 2016, 8, 1344-1350.	8.0	32
9	Flexible free-standing air electrode with bimodal pore architecture for long-cycling Li-O2 batteries. Carbon, 2017, 117, 454-461.	10.3	31
10	Reaction Kinetics of CO <sub>2</sub> Carbonation with Mg-Rich Minerals. Journal of Physical Chemistry A, 2011, 115, 7638-7644.	2.5	28
11	Graphene Coating of Silicon Nanoparticles with CO <sub>2</sub> â€Enhanced Chemical Vapor Deposition. Small, 2016, 12, 658-667.	10.0	27
12	Transient color changes in oxidative-stable fluorinated polyimide film for flexible display substrates. RSC Advances, 2015, 5, 57339-57345.	3.6	26
13	Enhanced Electrochemical Stability of a Zwitterionic-Polymer-Functionalized Electrode for Capacitive Deionization. ACS Applied Materials & Interfaces, 2018, 10, 6207-6217.	8.0	26
14	Adsorption mechanisms of lithium oxides (LixO2) on N-doped graphene: a density functional theory study with implications for lithium–air batteries. Theoretical Chemistry Accounts, 2016, 135, 1.	1.4	22
15	Toward enhanced CO2 adsorption on bimodal calcium-based materials with porous truncated architectures. Applied Surface Science, 2020, 505, 144512.	6.1	20
16	<scp>CO<sub>2</sub></scp> Adsorption on <scp>H<sub>2</sub>O</scp> aturated <scp>BaO</scp> (1 0 0) and Induced Barium Surface Dissociation. Bulletin of the Korean Chemical Society, 2015, 36, 11-16.	1.9	15
17	Enhanced competitive adsorption of CO2 and H2 on graphyne: A density functional theory study. AIP Advances, 2017, 7, .	1.3	15
18	Enhanced Selectivity for CO <sub>2</sub> Adsorption on Mesoporous Silica with Alkali Metal Halide Due to Electrostatic Field: A Molecular Simulation Approach. ACS Applied Materials & Interfaces, 2017, 9, 31683-31690.	8.0	14

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19	Enhanced H2 dissociative phenomena of Pt–Ir electrocatalysts for PEMFCs: an integrated experimental and theoretical study. RSC Advances, 2015, 5, 54941-54946.	3.6	12
20	Wave attenuation prediction of artificial coral reef using machine-learning integrated with hydraulic experiment. Ocean Engineering, 2022, 248, 110324.	4.3	12
21	Film shrinkage inducing strong chain entanglement in fluorinated polyimide. Polymer, 2015, 68, 293-301.	3.8	11
22	Predictive Guide for Collective CO <sub>2</sub> Adsorption Properties of Mgâ^'Al Mixed Oxides. ChemSusChem, 2017, 10, 1701-1709.	6.8	11
23	Correlation of stress and optical properties in highly transparent polyimides for future flexible display. Macromolecular Research, 2017, 25, 971-975.	2.4	11
24	Mgâ€lon Inversion in MgO@MgOâ^'Al <sub>2</sub> O <sub>3</sub> Oxides: The Origin of Basic Sites. ChemSusChem, 2019, 12, 2810-2818.	6.8	11
25	Improved Coastal Erosion Prevention Using a Hybrid Method with an Artificial Coral Reef: Large-Scale 3D Hydraulic Experiment. Water (Switzerland), 2020, 12, 2801.	2.7	11
26	Effect of fluorination on haze reduction in transparent polyimide films for flexible substrates. Journal of Applied Polymer Science, 2017, 134, .	2.6	10
27	Substrate Effect of Platinum-Decorated Carbon on Enhanced Hydrogen Oxidation in PEMFC. ACS Omega, 2020, 5, 26902-26907.	3.5	10
28	Induced Infiltration of Hole-Transporting Polymer into Photocatalyst for Staunch Polymer–Metal Oxide Hybrid Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 25915-25922.	8.0	8
29	Density functional theory approach to CO <sub>2</sub> adsorption on a spinel mineral: determination of binding coordination. RSC Advances, 2016, 6, 28607-28611.	3.6	8
30	Effect of bimodal surface modification of graphyne on enhanced H2 storage: Density functional theory study. AIP Advances, 2018, 8, 115034.	1.3	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. Carbon Letters, 2015, 16, 198-202.	5.9	7
32	Prediction of Wave Transmission Characteristics of Low-Crested Structures with Comprehensive Analysis of Machine Learning. Sensors, 2021, 21, 8192.	3.8	6
33	Lower Tropospheric Aerosol Measurements by MAX-DOAS During Severe Asian Dust Period. Aerosol Science and Technology, 2009, 43, 1208-1217.	3.1	4
34	Development of hydrophilicity on the proton exchange using sulfonic acid on PEEK in the presence of water: a density functional theory study. Theoretical Chemistry Accounts, 2017, 136, 1.	1.4	4
35	Influence of Sulfonic Acid Group on Sulfonated Polyethersulfone Membrane for <scp>PEM</scp> Fuel Cell: A Firstâ€Principles Study. Bulletin of the Korean Chemical Society, 2015, 36, 2116-2119.	1.9	3
36	Bromination effect of polybrominated diphenyl ethers on the graphyne surface on enhanced adsorption characteristics using density functional theory study. AIP Advances, 2020, 10, .	1.3	3

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37	The Enhanced Mitigation of Coastal Erosion Using the Artificial Coral Reefs. Journal of Coastal Research, 2019, 91, 11.	0.3	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.	0.3	3
39	Induced application of biological waste Escherichia coli functionalized with an amine-based polymer for CO <sub>2</sub> capture. RSC Advances, 2016, 6, 77535-77544.	3.6	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.	1.2	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.	1.2	2
42	Intrinsic Kinetics of Platy Hydrated Magnesium Silicate (Talc) for Geological CO2 Sequestration: Determination of Activation Barrier. Industrial & Engineering Chemistry Research, 2014, 53, 16523-16528.	3.7	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	110278431	l4trgBT /Ov
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.	2.7	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.	1.2	1
46	THE STUDY ON THE EFFECT OF COASTAL EROSION MITIGATION USING ARTIFICIAL CORAL REEF — UNDERSTANDING WITH 3 DIMENSIONAL HYDRAULIC EXPERIMENT. , 2019, , .		0