Sang Uck Lee

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2201215/publications.pdf

Version: 2024-02-01

118 papers	4,310 citations	94433 37 h-index	123424 61 g-index
123 all docs	123 docs citations	123 times ranked	5547 citing authors

#	Article	IF	Citations
1	Strain-induced carrier mobility modulation in organic semiconductors. Journal of Industrial and Engineering Chemistry, 2022, 107, 137-144.	5.8	2
2	Guanidinium-Pseudohalide Perovskite Interfaces Enable Surface Reconstruction of Colloidal Quantum Dots for Efficient and Stable Photovoltaics. ACS Nano, 2022, 16, 1649-1660.	14.6	18
3	Designing a descriptor for the computational screening of argyrodite-based solid-state superionic conductors: uniformity of ion-cage size. Journal of Materials Chemistry A, 2022, 10, 7888-7895.	10.3	7
4	Designing and Tuning the Electronic Structure of Nickelâ€“Vanadium Layered Double Hydroxides for Highly Efficient Oxygen Evolution Electrocatalysis. ACS Catalysis, 2022, 12, 3821-3831.	11.2	58
5	Hybridized heterostructure of CoS and MoS2 nanoparticles for highly-efficient and robust bifunctional water electrolysis. Applied Surface Science, 2022, 592, 153196.	6.1	17
6	Structural and Electronic Modulations of Imidazolium Covalent Organic Framework-Derived Electrocatalysts for Oxygen Redox Reactions in Rechargeable Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2022, 14, 24404-24414.	8.0	12
7	Highâ€Alkaline Waterâ€Splitting Activity of Mesoporous 3D Heterostructures: An Amorphousâ€Shell@Crystallineâ€Core Nanoâ€Assembly of Coâ€Niâ€Phosphate Ultrathinâ€Nanosheets and Vâ€Doped Cobaltâ€Nitride Nanowires. Advanced Science, 2022, 9, .	10.2	41
8	Stable performance of Li-S battery: Engineering of Li2S smart cathode by reduction of multilayer graphene-embedded 2D-MoS2. Journal of Alloys and Compounds, 2021, 862, 158031.	5.5	11
9	Mechanically robust, self-healing graphene like defective SiC: A prospective anode of Li-ion batteries. Applied Surface Science, 2021, 541, 148417.	6.1	25
10	Single-atom oxygen reduction reaction electrocatalysts of Fe, Si, and N co-doped carbon with 3D interconnected mesoporosity. Journal of Materials Chemistry A, 2021, 9, 4297-4309.	10.3	43
11	State of charge dependent ordered and disordered phases in a Li[Ni1/3Co1/3Mn1/3]O2 cathode material. Materials Advances, 2021, 2, 3965-3970.	5.4	2
12	Lowâ€Dimensional Singleâ€Cation Formamidinium Lead Halide Perovskites (FA_m₊₂Pb_mBr₃_m₊₂): From Synthesis to Rewritable Phaseâ€Change Memory Film. Advanced Functional Materials, 2021, 31, 2011093.	14.9	12
13	Phaseâ€Change Memory Films: Lowâ€Dimensional Singleâ€Cation Formamidinium Lead Halide Perovskites (FA_m₊₂Pb_mBr₃_m₊₂): From Synthesis to Rewritable Phaseâ€Change Memory Film (Adv. Funct. Mater. 17/2021). Advanced Functional Materials, 2021, 31, 2170118.	14.9	1
14	Bifunctional Covalent Organic Frameworkâ€Derived Electrocatalysts with Modulated pâ€Band Centers for Rechargeable Znâ€“Air Batteries. Advanced Functional Materials, 2021, 31, 2101727.	14.9	76
15	Ampere-hour-scale zincâ€“air pouch cells. Nature Energy, 2021, 6, 592-604.	39.5	149
16	Nanoporous <scp>Titaniumâ€Oxo</scp> Molecular Cluster for <scp>CO₂</scp> Selective Adsorption. Bulletin of the Korean Chemical Society, 2021, 42, 1014-1019.	1.9	2
17	Efficient organic manganese(<scp>ii</scp>) bromide green-light-emitting diodes enabled by manipulating the hole and electron transport layer. Journal of Materials Chemistry C, 2021, 9, 11314-11323.	5.5	20
18	Unveiling the effect of the crystalline phases of iron oxyhydroxide for highly sensitive and selective detection of dopamine. Dalton Transactions, 2021, 50, 13497-13504.	3.3	5

#	Article	IF	Citations
19	Experimental and Theoretical Insights into the Borohydride-Based Reduction-Induced Metal Interdiffusion in Fe-Oxide@NiCo₂O₄ for Enhanced Oxygen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 53725-53735.	8.0	32
20	Experimental and Theoretical Insights into Transition-Metal (Mo, Fe) Codoping in a Bifunctional Nickel Phosphide Microsphere Catalyst for Enhanced Overall Water Splitting. ACS Applied Energy Materials, 2021, 4, 14169-14179.	5.1	39
21	Temperature-dependent lithium diffusion in phographene: Insights from molecular dynamics simulation. Journal of Industrial and Engineering Chemistry, 2020, 81, 287-293.	5.8	10
22	Rational design of a PC3 monolayer: A high-capacity, rapidly charging anode material for sodium-ion batteries. Carbon, 2020, 157, 420-426.	10.3	49
23	Role of Transition Metals in Layered Double Hydroxides for Differentiating the Oxygen Evolution and Nonenzymatic Glucose Sensing. ACS Applied Materials & Interfaces, 2020, 12, 6193-6204.	8.0	48
24	Donorâ€“Acceptor-Appended Triarylboron Lewis Acids: Ratiometric or Time-Resolved Turn-On Fluorescence Response toward Fluoride Binding. Inorganic Chemistry, 2020, 59, 1414-1423.	4.0	11
25	A Robust Nonprecious CuFe Composite as a Highly Efficient Bifunctional Catalyst for Overall Electrochemical Water Splitting. Small, 2020, 16, e1905884.	10.0	63
26	Enhancing the thermally activated delayed fluorescence of nido-carborane-appended triarylboranes by steric modification of the phenylene linker. Inorganic Chemistry Frontiers, 2020, 7, 3456-3464.	6.0	13
27	Strain induced structural transformation, mechanical and phonon stability in silicene derived 2D-SiB. Journal of Industrial and Engineering Chemistry, 2020, 90, 399-406.	5.8	5
28	Frustrated Lewis pairs with thermally activated delayed fluorescence properties: activation of formaldehyde. Dalton Transactions, 2020, 49, 13198-13201.	3.3	1
29	Hybridisation of perovskite nanocrystals with organic molecules for highly efficient liquid scintillators. Light: Science and Applications, 2020, 9, 156.	16.6	85
30	Strain-induced work function in h-BN and BCN monolayers. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 123, 114180.	2.7	42
31	Tuning d-band centers by coupling PdO nanoclusters to WO₃ nanosheets to promote the oxygen reduction reaction. Journal of Materials Chemistry A, 2020, 8, 13490-13500.	10.3	33
32	Complementary Hybrid Semiconducting Superlattices with Multiple Channels and Mutual Stabilization. Nano Letters, 2020, 20, 4864-4871.	9.1	13
33	Molecular engineering of nanostructures and activities on bifunctional oxygen electrocatalysts for Zinc-air batteries. Applied Catalysis B: Environmental, 2020, 270, 118869.	20.2	34
34	Densely colonized isolated Cu-N single sites for efficient bifunctional electrocatalysts and rechargeable advanced Zn-air batteries. Applied Catalysis B: Environmental, 2020, 268, 118746.	20.2	110
35	Designing a high-performance nitrogen-doped titanium dioxide anode material for lithium-ion batteries by unravelling the nitrogen doping effect. Nano Energy, 2020, 74, 104829.	16.0	38
36	Bias-Dependent Multichannel Transport in Grapheneâ€“Boron Nitride Heterojunction Nanoribbons. ACS Applied Electronic Materials, 2020, 2, 1449-1458.	4.3	1

#	Article	IF	Citations
37	Phographene as a High-Performance Anode Material with High Specific Capacity and Fast Li Diffusion: From Structural, Electronic, and Mechanical Properties to LIB Applications. Journal of Physical Chemistry C, 2019, 123, 21345-21352.	3.1	43
38	Unraveling the controversy over a catalytic reaction mechanism using a new theoretical methodology: One probe and non-equilibrium surface Green's function. Nano Energy, 2019, 63, 103863.	16.0	7
39	Enhanced catalytic activity of SO_x-incorporated graphene for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 22615-22620.	10.3	4
40	Atomistic insights into the anisotropic mechanical properties and role of ripples on the thermal expansion of h-BCN monolayers. RSC Advances, 2019, 9, 1238-1246.	3.6	38
41	Unveiling dual-linkage 3D hexaiminobenzene metalâ€“organic frameworks towards long-lasting advanced reversible Znâ€“air batteries. Energy and Environmental Science, 2019, 12, 727-738.	30.8	300
42	B₃S monolayer: prediction of a high-performance anode material for lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 12706-12712.	10.3	59
43	Two-dimensional haeckelite h567: A promising high capacity and fast Li diffusion anode material for lithium-ion batteries. Carbon, 2019, 148, 344-353.	10.3	59
44	Time Transient Electrochemical Monitoring of Tetraalkylammonium Polybromide Solid Particle Formation: Observation of Ionic Liquid-to-Solid Transitions. Analytical Chemistry, 2019, 91, 5850-5857.	6.5	13
45	Metal-Free Oxygen Evolution and Oxygen Reduction Reaction Bifunctional Electrocatalyst in Alkaline Media: From Mechanisms to Structureâ€“Catalytic Activity Relationship. ACS Sustainable Chemistry and Engineering, 2018, 6, 4973-4980.	6.7	62
46	Theoretical investigation on the ground state properties of the hexaamminecobalt(<scp>iii</scp>) and nitroâ€“nitrito linkage isomerism in pentaamminecobalt(<scp>iii</scp>) in vacuo. RSC Advances, 2018, 8, 3328-3342.	3.6	11
47	Three-dimensional evaluation of compositional and structural changes in cycled LiNi1/3Co1/3Mn1/3O2 by atom probe tomography. Journal of Power Sources, 2018, 379, 160-166.	7.8	23
48	Hierarchically Designed 3D Holey C₂N Aerogels as Bifunctional Oxygen Electrodes for Flexible and Rechargeable Zn-Air Batteries. ACS Nano, 2018, 12, 596-608.	14.6	159
49	Adjustable Intermolecular Interactions Allowing 2D Transition Metal Dichalcogenides with Prolonged Scavenging Activity for Reactive Oxygen Species. Small, 2018, 14, e1800026.	10.0	30
50	Molecular layer deposition of charge-transfer complex thin films with visible-light absorption. Organic Electronics, 2018, 52, 237-242.	2.6	4
51	Atomistic Dynamics Investigation of the Thermomechanical Properties and Li Diffusion Kinetics in Ï-Graphene for LIB Anode Material. ACS Applied Materials & Interfaces, 2018, 10, 36240-36248.	8.0	39
52	Rational design of time-resolved turn-on fluorescence sensors: exploiting delayed fluorescence for hydrogen peroxide sensing. Chemical Communications, 2018, 54, 12069-12072.	4.1	25
53	Radical Scavengin: Environmental Stimuliâ€Responsive Longâ€Term Radical Scavenging of 2D Transition Metal Dichalcogenides through Defectâ€Mediated Hydrogen Atom Transfer in Aqueous Media (Adv.) Tj ETQq1 1 0.784314 rgBT /Over	7.8	4
54	Palladiumâ€Catalyzed Carbonylative Coupling Reactions of N,Nâ€Bis(methanesulfonyl)amides through Câ€“N Bond Cleavage. European Journal of Organic Chemistry, 2018, 2018, 5717-5724.	2.4	13

#	Article	IF	Citations
55	Environmental Stimuliâ€Responsive Longâ€Term Radical Scavenging of 2D Transition Metal Dichalcogenides through Defectâ€Mediated Hydrogen Atom Transfer in Aqueous Media. Advanced Functional Materials, 2018, 28, 1802737.	14.9	9
56	2D transition metal dichalcogenides with glucan multivalency for antibody-free pathogen recognition. Nature Communications, 2018, 9, 2549.	12.8	44
57	Solidâ€State Rechargeable Zincâ€“Air Battery with Long Shelf Life Based on Nanoengineered Polymer Electrolyte. ChemSusChem, 2018, 11, 3215-3224.	6.8	55
58	Assessment of the mechanical properties of monolayer graphene using the energy and strain-fluctuation methods. RSC Advances, 2018, 8, 27283-27292.	3.6	42
59	Nidoâ€Carboranes: Donors for Thermally Activated Delayed Fluorescence. Angewandte Chemie - International Edition, 2018, 57, 12483-12488.	13.8	70
60	Nidoâ€Carboranes: Donors for Thermally Activated Delayed Fluorescence. Angewandte Chemie, 2018, 130, 12663-12668.	2.0	24
61	Efficiency Tuning of UVA/UVB Absorbance through Control over the Intramolecular Hydrogen Bonding of Triazine Derivatives. Bulletin of the Korean Chemical Society, 2018, 39, 858-863.	1.9	1
62	p- and n-type Doping Effects on the Electrical and Ionic Conductivities of Li4Ti5O12 Anode Materials. Journal of Physical Chemistry C, 2018, 122, 15155-15162.	3.1	10
63	Quantitative Correlation between Carrier Mobility and Intermolecular Center-to-Center Distance in Organic Single Crystals. Chemistry of Materials, 2017, 29, 4072-4079.	6.7	12
64	Scalable 3-D Carbon Nitride Sponge as an Efficient Metal-Free Bifunctional Oxygen Electrocatalyst for Rechargeable Znâ€“Air Batteries. ACS Nano, 2017, 11, 347-357.	14.6	369
65	Theoretical evaluation of the structureâ€“activity relationship in graphene-based electrocatalysts for hydrogen evolution reactions. RSC Advances, 2017, 7, 27033-27039.	3.6	21
66	Deciphering the Electrocatalytic Activity of Nitrogen-Doped Carbon Embedded with Cobalt Nanoparticles and the Reaction Mechanism of Triiodide Reduction in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2017, 121, 27332-27343.	3.1	18
67	Controlled Growth of Rubrene Nanowires by Eutectic Melt Crystallization. Scientific Reports, 2016, 6, 23108.	3.3	11
68	Exploring Interfacial Events in Gold-Nanocluster-Sensitized Solar Cells: Insights into the Effects of the Cluster Size and Electrolyte on Solar Cell Performance. Journal of the American Chemical Society, 2016, 138, 390-401.	13.7	137
69	Aromatic cages B0/+42: unprecedented existence of octagonal holes in boron clusters. Physical Chemistry Chemical Physics, 2016, 18, 11620-11623.	2.8	16
70	Behavior of maltose-neopentyl glycol-3 (MNG-3) at the air/aqueous interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 484, 184-189.	4.7	0
71	Two Dimensional Aggregation Behaviors of Quinoxaline Dendrimers. Journal of Nanoscience and Nanotechnology, 2015, 15, 1511-1514.	0.9	1
72	Manipulation of Phosphorescence Efficiency of Cyclometalated Iridium Complexes by Substituted oâ€Carboranes. Chemistry - A European Journal, 2015, 21, 2052-2061.	3.3	70

#	Article	IF	Citations
73	o-Carboranylâ€“Phosphine as a New Class of Strong-Field Ancillary Ligand in Cyclometalated Iridium(III) Complexes: Toward Blue Phosphorescence. Organometallics, 2015, 34, 3455-3458.	2.3	38
74	Iridium Cyclometalates with Tethered o-Carboranes: Impact of Restricted Rotation of o-Carborane on Phosphorescence Efficiency. Journal of the American Chemical Society, 2015, 137, 8018-8021.	13.7	103
75	Selective Synthesis of Ruthenium(II) Metalla[2]Catenane via Solvent and Guest-Dependent Self-Assembly. Journal of the American Chemical Society, 2015, 137, 4674-4677.	13.7	97
76	Strain Energy and Structural Property of Methyl Substituted Imogolite. Molecular Crystals and Liquid Crystals, 2014, 599, 68-71.	0.9	3
77	Doubling the Capacity of Lithium Manganese Oxide Spinel by a Flexible Skinny Graphitic Layer. Angewandte Chemie - International Edition, 2014, 53, 5059-5063.	13.8	25
78	Terpyridineâ€“Triarylborane Conjugates for the Dual Complexation of Zinc(II) Cation and Fluoride Anion. Organometallics, 2014, 33, 753-762.	2.3	35
79	Synthesis and characterization of an ester-terminated organic semiconductor for ethanol vapor detection. Organic Electronics, 2014, 15, 2277-2284.	2.6	6
80	Thermodynamic Control of Diameter-Modulated Aluminosilicate Nanotubes. Journal of Physical Chemistry C, 2014, 118, 8148-8152.	3.1	16
81	Experimental and theoretical investigation of fluorine substituted LiFe0.4Mn0.6PO4 as cathode material for lithium rechargeable batteries. Solid State Ionics, 2014, 260, 2-7.	2.7	27
82	Synthesis and Characteristics of a Biobased High-T_g Terpolyester of Isosorbide, Ethylene Glycol, and 1,4-Cyclohexane Dimethanol: Effect of Ethylene Glycol as a Chain Linker on Polymerization. Macromolecules, 2013, 46, 7219-7231.	4.8	113
83	Preparation of an imogolite/poly(acrylic acid) hybrid gel. Journal of Colloid and Interface Science, 2013, 406, 165-171.	9.4	21
84	Opening and blocking the inner-pores of halloysite. Chemical Communications, 2013, 49, 4519.	4.1	74
85	ENANTIOMER SEPARATION OF N-t-BOC AND N-CBZ Î±-AMINO ACIDS AND THEIR ESTERS ON POLYSACCHARIDE DERIVED CHIRAL STATIONARY PHASES. Journal of Liquid Chromatography and Related Technologies, 2013, 36, 1899-1914.	1.0	1
86	Temperature Effect on the Synthesis of Gibbsite and Boehmite. Chemistry Letters, 2013, 42, 1463-1465.	1.3	3
87	Influence of Exchange-Correlation Functional in the Calculations of Vertical Excitation Energies of Halogenated Copper Phthalocyanines using Time-Dependent Density Functional Theory (TD-DFT). Bulletin of the Korean Chemical Society, 2013, 34, 2276-2280.	1.9	9
88	Chiral Recognition of Nâ€Phthaloyl, Nâ€Tetrachlorophthaloyl, and Nâ€Naphthaloyl Î±â€Amino Acids and Their Esters on Polysaccharideâ€Derived Chiral Stationary Phases. Chirality, 2012, 24, 1037-1046.	2.6	19
89	Aggregation and Stabilization of Carboxylic Acid Functionalized Halloysite Nanotubes (HNT-COOH). Journal of Physical Chemistry C, 2012, 116, 18230-18235.	3.1	97
90	Origin of the Strain Energy Minimum in Imogolite Nanotubes. Journal of Physical Chemistry C, 2011, 115, 5226-5231.	3.1	30

#	Article	IF	Citations
91	Metal Ion Coordination with an Asymmetric Fan-Shaped Dendrimer at the Airâ€“Water Interface. Langmuir, 2011, 27, 8898-8904.	3.5	8
92	Electron transport characteristics of organic molecule encapsulated carbon nanotubes. Nanoscale, 2011, 3, 1773.	5.6	10
93	The Origin of the Halogen Effect on the Phthalocyanine Green Pigments. Chemistry - an Asian Journal, 2010, 5, 1341-1346.	3.3	4
94	Carbon Nanotubes Oscillation under Electric Field. Japanese Journal of Applied Physics, 2010, 49, 115103.	1.5	2
95	Electron transport characteristics of one-dimensional heterojunctions with multi-nitrogen-doped capped carbon nanotubes. Nanoscale, 2010, 2, 2758.	5.6	8
96	Rigid adamantane tripod linkage for well-defined conductance of a single-molecule junction. Physical Chemistry Chemical Physics, 2010, 12, 11763.	2.8	12
97	Designing Nanogadgetry for Nanoelectronic Devices with Nitrogenâ€Doped Capped Carbon Nanotubes. Small, 2009, 5, 1769-1775.	10.0	176
98	The Role of Aromaticity and the Ï€â€Conjugated Framework in Multiporphyrinic Systems as Singleâ€Molecule Switches. Small, 2008, 4, 962-969.	10.0	26
99	Electron transport through carbon nanotube intramolecular heterojunctions with peptide linkages. Physical Chemistry Chemical Physics, 2008, 10, 5225.	2.8	16
100	Designing Nanogadgets by Interconnecting Carbon Nanotubes with Zinc Layers. ACS Nano, 2008, 2, 939-943.	14.6	20
101	Structural Dependence of Magnetic Shielding Properties in Al₄Li₄ Clusters. Materials Transactions, 2008, 49, 2429-2436.	1.2	1
102	Transport Properties of Nanoscale Materials for Molecular Wire Applications: A Case Study of Ferrocene Dimers. Journal of the Korean Physical Society, 2008, 52, 1197-1201.	0.7	10
103	Computational Design of a Rectifying Diode Made by Interconnecting Carbon Nanotubes with Peptide Linkages. Journal of Physical Chemistry C, 2007, 111, 12175-12180.	3.1	24
104	Control of Electron Transport by Manipulating the Conjugated Framework. Journal of Physical Chemistry C, 2007, 111, 15397-15403.	3.1	22
105	Interpreting STM image and tunneling-current-induced rotation of cis-2-butene on a Pd(110) surface. Chemical Physics Letters, 2007, 435, 90-95.	2.6	3
106	Thermal cisâ€“trans isomerization of triazo-benzene. Current Applied Physics, 2007, 7, 513-516.	2.4	2
107	Molecular dynamics study of the ionic conductivity of 1-n-butyl-3-methylimidazolium salts as ionic liquids. Chemical Physics Letters, 2005, 406, 332-340.	2.6	88
108	Density Functional Studies of Ring-Opening Reactions of Li⁺-(ethylene carbonate) and Li⁺-(vinylene carbonate). Bulletin of the Korean Chemical Society, 2005, 26, 43-46.	1.9	7

#	Article	IF	Citations
109	Structure and stability of the defect fullerene clusters of C60: C59, C58, and C57. Journal of Chemical Physics, 2004, 121, 3941-3942.	3.0	31
110	Performance of density functionals for calculation of reductive ring-opening reaction energies of Li + -EC and Li + -VC. Theoretical Chemistry Accounts, 2004, 112, 106-112.	1.4	31
111	Density functional calculations on the ionization potentials of (CuPc)n (n=1â€“6). Computational and Theoretical Chemistry, 2004, 672, 231-234.	1.5	8
112	Two-dimensional packing patterns of amino acid surfactant and higher alcohols in an aqueous phase and their associated packing parameters. Journal of Colloid and Interface Science, 2004, 273, 596-603.	9.4	11
113	Time-dependent density-functional calculations of S[sub 0]â€“S[sub 1] transition energies of poly(p-phenylene vinylene). Journal of Chemical Physics, 2004, 121, 609.	3.0	19
114	New catalyst design for polymerization of norbornene esters by reducing intramolecular interaction. Journal of Molecular Modeling, 2003, 9, 304-307.	1.8	4
115	Enantiomeric discrimination of pyrethroic acid esters on polysaccharide derived chiral stationary phases. Chirality, 2003, 15, 276-283.	2.6	15
116	Theoretical studies of the solvent decomposition by lithium atoms in lithium-ion battery electrolyte. Chemical Physics Letters, 2002, 360, 359-366.	2.6	44
117	Molecular orbital study on the ground and excited states of methyl substituted tris(8-hydroxyquinoline) aluminum(III). Chemical Physics Letters, 2002, 366, 9-16.	2.6	44
118	Theoretical Basis of Electrocatalysis. , 0, , .		5