Hyo Jae Yoon

List of Publications by Year
in descending order

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86 papers	3,634 citations	159585 30 h-index	144013 57 g-index
91 all docs	91 docs citations	91 times ranked	3083 citing authors

#	Article	IF	Citations
1	Allosteric Supramolecular Triple-Layer Catalysts. Science, 2010, 330, 66-69.	12.6	290
2	Defining the Value of Injection Current and Effective Electrical Contact Area for EGaIn-Based Molecular Tunneling Junctions. Journal of the American Chemical Society, 2013, 135, 18131-18144.	13.7	229
3	Formation of Triboelectric Series via Atomic-Level Surface Functionalization for Triboelectric Energy Harvesting. ACS Nano, 2017, 11, 6131-6138.	14.6	172
4	Omniphobic â€œR^F Paperâ€•Produced by Silanization of Paper with Fluoroalkyltrichlorosilanes. Advanced Functional Materials, 2014, 24, 60-70.	14.9	169
5	Selfâ€Assembled Monolayers as Interface Engineering Nanomaterials in Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2002606.	19.5	156
6	Gaâ€Based Liquid Metal Micro/Nanoparticles: Recent Advances and Applications. Small, 2020, 16, e1903391.	10.0	140
7	PCR-like Cascade Reactions in the Context of an Allosteric Enzyme Mimic. Journal of the American Chemical Society, 2008, 130, 11590-11591.	13.7	117
8	The Rate of Charge Tunneling Is Insensitive to Polar Terminal Groups in Self-Assembled Monolayers in Ag^{TS}S(CH₂)_nM(CH₂)_mT//Ga₂O₃</su Junctions. Journal of the American Chemical Society, 2014, 136, 16-19.	13.7	113
9	The Rate of Charge Tunneling through Selfâ€Assembled Monolayers Is Insensitive to Many Functional Group Substitutions. Angewandte Chemie - International Edition, 2012, 51, 4658-4661.	13.8	108
10	Rectification in Tunneling Junctions: 2,2â€²-Bipyridyl-Terminated n-Alkanethiolates. Journal of the American Chemical Society, 2014, 136, 17155-17162.	13.7	105
11	New Approach for Large-Area Thermoelectric Junctions with a Liquid Eutectic Galliumâ€“Indium Electrode. Nano Letters, 2018, 18, 7715-7718.	9.1	86
12	Allosteric Regulation of Phosphate Diester Transesterification Based upon a Dinuclear Zinc Catalyst Assembled via the Weak-Link Approach. Journal of the American Chemical Society, 2007, 129, 14182-14183.	13.7	82
13	Structureâ€“thermopower relationships in molecular thermoelectrics. Journal of Materials Chemistry A, 2019, 7, 14419-14446.	10.3	72
14	Replacing â^'CH₂CH₂â€“ with â^'CONHâ€“ Does Not Significantly Change Rates of Charge Transport through Ag^{TS}-SAM//Ga₂O₃/EGaIn Junctions. Journal of the American Chemical Society, 2012, 134, 10876-10884.	13.7	71
15	Gradients of Rectification: Tuning Molecular Electronic Devices by the Controlled Use of Differentâ€Sized Diluents in Heterogeneous Selfâ€Assembled Monolayers. Angewandte Chemie - International Edition, 2016, 55, 10307-10311.	13.8	70
16	Mixed Molecular Electronics: Tunneling Behaviors and Applications of Mixed Selfâ€Assembled Monolayers. Advanced Electronic Materials, 2020, 6, 1901157.	5.1	63
17	Elucidating the Role of Moleculeâ€“Electrode Interfacial Defects in Charge Tunneling Characteristics of Large-Area Junctions. Journal of the American Chemical Society, 2018, 140, 12303-12307.	13.7	59
18	Modulating the Local Coordination Environment of Singleâ€Atom Catalysts for Enhanced Catalytic Performance in Hydrogen/Oxygen Evolution Reaction. Small, 2022, 18, e2105680.	10.0	56

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19	Influence of Environment on the Measurement of Rates of Charge Transport across Ag^{TS}/SAM//Ga₂O₃/EGaIn Junctions. Chemistry of Materials, 2014, 26, 3938-3947.	6.7	53
20	Fluorination, and Tunneling across Molecular Junctions. Journal of the American Chemical Society, 2015, 137, 3852-3858.	13.7	47
21	Power Factor of One Molecule Thick Films and Length Dependence. ACS Central Science, 2019, 5, 1975-1982.	11.3	47
22	Introducing Ionic and/or Hydrogen Bonds into the SAM//Ga₂O₃ Top-Interface of Ag^{TS}/S(CH₂)_nT//Ga₂O₃/EGaIn Junctions. Nano Letters, 2014, 14, 3521-3526.	9.1	45
23	Facile one-pot polymerization of a fully conjugated donorâ€“acceptor block copolymer and its application in efficient single component polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 21280-21289.	10.3	45
24	Replacing Ag^{TS}SCH₂â€R with Ag^{TS}O₂Câ€R in EGaInâ€Based Tunneling Junctions Does Not Significantly Change Rates of Charge Transport. Angewandte Chemie - International Edition, 2014, 53, 3889-3893.	13.8	44
25	Tunneling and thermoelectric characteristics of N-heterocyclic carbene-based large-area molecular junctions. Chemical Communications, 2019, 55, 8780-8783.	4.1	44
26	Interstitially Mixed Self-Assembled Monolayers Enhance Electrical Stability of Molecular Junctions. Nano Letters, 2021, 21, 3162-3169.	9.1	42
27	Dihydroxylation of 2-vinylaziridine: efficient synthesis ofd-ribo-phytosphingosine. Chemical Communications, 2007, , 79-81.	4.1	41
28	Preparation of 2,3-diaminopropionate from ring opening of aziridine-2-carboxylate. Tetrahedron Letters, 2005, 46, 4407-4409.	1.4	40
29	Rectification in Molecular Tunneling Junctions Based on Alkanethiolates with Bipyridineâ€“Metal Complexes. Journal of the American Chemical Society, 2021, 143, 2156-2163.	13.7	40
30	Molecularly Controlled Stark Effect Induces Significant Rectification in Polycyclic-Aromatic-Hydrocarbon-Terminated n-Alkanethiolates. Nano Letters, 2019, 19, 545-553.	9.1	35
31	Small Molecule Approach to Passivate Undercoordinated Ions in Perovskite Light Emitting Diodes: Progress and Challenges. Advanced Optical Materials, 2022, 10, 2101361.	7.3	34
32	Aziridine in polymers: a strategy to functionalize polymers by ring-opening reaction of aziridine. Polymer Chemistry, 2015, 6, 3387-3391.	3.9	31
33	Influence of Air-Oxidation on Rectification in Thiol-Based Molecular Monolayers. Journal of the Electrochemical Society, 2016, 163, G115-G121.	2.9	30
34	Deconvolution of Tunneling Current in Large-Area Junctions Formed with Mixed Self-Assembled Monolayers. Journal of Physical Chemistry Letters, 2018, 9, 4578-4583.	4.6	30
35	Thermal conductance in single molecules and self-assembled monolayers: physicochemical insights, progress, and challenges. Journal of Materials Chemistry A, 2020, 8, 19746-19767.	10.3	30
36	Conformation, and Charge Tunneling through Molecules in SAMs. Journal of the American Chemical Society, 2021, 143, 3481-3493.	13.7	30

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37	Diaziridyl Ether of Bisphenol A. Macromolecules, 2018, 51, 4068-4076.	4.8	29
38	Electronic Mechanism of In Situ Inversion of Rectification Polarity in Supramolecular Engineered Monolayer. Journal of the American Chemical Society, 2022, 144, 7966-7971.	13.7	29
39	Charging of Multiple Interacting Particles by Contact Electrification. Journal of the American Chemical Society, 2014, 136, 13348-13354.	13.7	28
40	Influence of halogen substitutions on rates of charge tunneling across SAM-based large-area junctions. Physical Chemistry Chemical Physics, 2015, 17, 13804-13807.	2.8	27
41	Maskless Arbitrary Writing of Molecular Tunnel Junctions. ACS Applied Materials & Interfaces, 2017, 9, 40556-40563.	8.0	27
42	Two Different Length-Dependent Regimes in Thermoelectric Large-Area Junctions of n-Alkanethiolates. Chemistry of Materials, 2019, 31, 5973-5980.	6.7	27
43	Interplay of Fermi Level Pinning, Marcus Inverted Transport, and Orbital Gating in Molecular Tunneling Junctions. Journal of Physical Chemistry Letters, 2020, 11, 8597-8603.	4.6	27
44	Understanding Keesom Interactions in Monolayer-Based Large-Area Tunneling Junctions. Journal of Physical Chemistry Letters, 2018, 9, 5078-5085.	4.6	26
45	Aziridine-based polyaddition, post-modification, and crosslinking: can aziridine rival epoxide in polymer chemistry?. Polymer Chemistry, 2019, 10, 4506-4512.	3.9	25
46	Rational design of a main chain conjugated copolymer having donorâ€“acceptor heterojunctions and its application in indoor photovoltaic cells. Journal of Materials Chemistry A, 2020, 8, 20091-20100.	10.3	25
47	Mechanical Force Induces Ylideâ€Free Cycloaddition of Nonscissible Aziridines. Angewandte Chemie - International Edition, 2020, 59, 4883-4887.	13.8	23
48	<scp>Nâ€Heterocyclic</scp> Carbene Anchors in Electronics Applications. Bulletin of the Korean Chemical Society, 2021, 42, 712-723.	1.9	23
49	Case Studies on Structureâ€“Property Relations in Perovskite Light-Emitting Diodes via Interfacial Engineering with Self-Assembled Monolayers. ACS Applied Materials & Interfaces, 2021, 13, 31236-31247.	8.0	23
50	Pseudo-allosteric regulation of the anion binding affinity of a macrocyclic coordination complex. Chemical Communications, 2009, , 4557.	4.1	22
51	One for Many: A Universal Reagent for Acylation Processes. Advanced Synthesis and Catalysis, 2016, 358, 1725-1730.	4.3	22
52	Aziridine-functionalized polydimethylsiloxanes for tailorable polymeric scaffolds: aziridine as a clickable moiety for structural modification of materials. Polymer Chemistry, 2017, 8, 2287-2291.	3.9	22
53	Validating the Mott Formula with Self-Assembled Monolayer (SAM)-Based Large-Area Junctions: Effect of Length, Backbone, Spacer, Substituent, and Electrode on the Thermopower of SAMs. Journal of Physical Chemistry C, 2021, 125, 20035-20047.	3.1	22
54	Achieving Ultralow, Zero, and Inverted Tunneling Attenuation Coefficients in Molecular Wires with Extended Conjugation. Small, 2021, 17, e2005711.	10.0	19

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55	Direct synthesis of pyrazoles from esters using tert-butoxide-assisted Câ€“(Cî€O) coupling. Chemical Communications, 2015, 51, 9201-9204.	4.1	18
56	Facile Synthesis of Benzo[d]azol-2(3H)-ones Using 2-Phenoxycarbonyl-4,5-dichloropyridazin-3(2H)-one as Green CO Source. Synlett, 2015, 26, 1985-1990.	1.8	18
57	Enhanced Thermopower of Saturated Molecules by Noncovalent Anchorâ€Induced Electron Doping of Singleâ€Layer Graphene Electrode. Advanced Materials, 2021, 33, e2103177.	21.0	17
58	Recent Progress in the Chemistry of Pyridazinones for Functional Group Transformations. Journal of Organic Chemistry, 2018, 83, 1-11.	3.2	16
59	Toward Printed Molecular Electronics: Direct Printing of Liquid Metal Microelectrode on Selfâ€Assembled Monolayers. Advanced Electronic Materials, 2021, 7, 2000829.	5.1	16
60	Comparative study of structural order, thermal desorption behavior, and work function change of self-assembled monolayers of pentafluorobenzenethiols and tetrafluorobenzenethiols on Au(1 1 1). Applied Surface Science, 2021, 555, 149671.	6.1	15
61	Solid State Dilution Controls Marcus Inverted Transport in Rectifying Molecular Junctions. Journal of Physical Chemistry Letters, 2021, 12, 982-988.	4.6	15
62	Thermopower of Molecular Junction in Harsh Thermal Environments. Nano Letters, 2022, 22, 3953-3960.	9.1	15
63	Superexchange Coupling-Induced Enhancements of Thermoelectric Performance in Saturated Molecules. Nano Letters, 2021, 21, 360-366.	9.1	14
64	Nonhalogenated Solvent-Processed High-Performance Indoor Photovoltaics Made of New Conjugated Terpolymers with Optimized Monomer Compositions. ACS Applied Materials & Interfaces, 2021, 13, 13487-13498.	8.0	14
65	Mechanical Force for the Transformation of Aziridine into Imine. Angewandte Chemie - International Edition, 2021, 60, 23564-23568.	13.8	12
66	Thermally Controlled Phase Transition of Low-Melting Electrode for Wetting-Based Spontaneous Top Contact in Molecular Tunnel Junction. ACS Applied Materials & Interfaces, 2018, 10, 34758-34764.	8.0	11
67	Improved Stability of All-Polymer Solar Cells Using Crosslinkable Donor and Acceptor Polymers Bearing Vinyl Moieties in the Side-Chains. ACS Applied Materials & Interfaces, 2021, 13, 16754-16765.	8.0	11
68	Thermal and Thermoelectric Properties of SAM-Based Molecular Junctions. ACS Applied Materials & Interfaces, 2022, 14, 22818-22825.	8.0	11
69	Characterizing Chelation at Surfaces by Charge Tunneling. Journal of the American Chemical Society, 2021, 143, 5967-5977.	13.7	10
70	Comparison of the mechanical properties of polymer blend and main-chain conjugated copolymer films with donorâ€“acceptor heterojunctions. Chemical Engineering Journal, 2021, 415, 128952.	12.7	8
71	Improved Photovoltaic Performance of Ternary All-Polymer Solar Cells by Incorporating a New Y6-based Polymer Acceptor and PC61BM. Macromolecular Research, 2022, 30, 587-596.	2.4	8
72	EGaIn Microelectrode for Electrical Characterization of ITO-Based van der Waals Interface and Airborne Molecular Contamination of ITO Surface. Journal of the Electrochemical Society, 2015, 162, H703-H712.	2.9	7

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73	Synthesis of Benzoxaphosphole 1-Oxide Heterocycles via a Three-Component Coupling Reaction Involving Arynes, Phosphites, and Ketones. Organic Letters, 2022, 24, 2192-2196.	4.6	7
74	Li-Ion Intercalation, Rectification, and Solid Electrolyte Interphase in Molecular Tunnel Junctions. Nano Letters, 2022, 22, 4956-4962.	9.1	7
75	New Encoding Schemes with Infofuses. Advanced Materials, 2011, 23, 4851-4856.	21.0	5
76	Facile Esterification of Alcohols with 2-Acyl-4,5-dichloropyridazin-3(2H)-ones under Friedelâ€“Crafts Conditions. Synlett, 2014, 25, 1909-1915.	1.8	5
77	Gradients of Rectification: Tuning Molecular Electronic Devices by the Controlled Use of Differentâ€Sized Diluents in Heterogeneous Selfâ€Assembled Monolayers. Angewandte Chemie, 2016, 128, 10463-10467.	2.0	5
78	Force-Induced Cycloaddition of Aziridine: Can We Force a New Route?. Synlett, 2020, 31, 1343-1348.	1.8	5
79	Mechanical Force Induces Ylideâ€Free Cycloaddition of Nonscissible Aziridines. Angewandte Chemie, 2020, 132, 4913-4917.	2.0	5
80	Formation and superlattice of long-range and highly ordered alicyclic selenolate monolayers on Au(1) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	6.1	5
81	Alkyl and Aryl 4,5-Dichloro-6-oxopyridazin-1(6H)-carboxylates: A Practical Alternative to Chloroformates for the Synthesis of Symmetric and Asymmetric Carbonates. Synlett, 2016, 27, 1577-1581.	1.8	4
82	Directing electrochemical asymmetric synthesis at heterogeneous interfaces: Past, present, and challenges. Electrochimica Acta, 2021, 397, 139271.	5.2	4
83	Heterocyclic Mechanophores in Polymer Mechanochemistry. Synlett, 2022, 33, 863-874.	1.8	4
84	Uniform Silver Nanowire Patterned Electrode on Robust PEN Substrate Using Poly(2-hydroxyethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	8.0	3
85	Mechanical Force for the Transformation of Aziridine into Imine. Angewandte Chemie, 2021, 133, 23756.	2.0	2
86	Synthesis of Functionalized Bicyclic Triazoles from Chiral Aziridines. Synlett, 2005, 2005, 2187-2190.	1.8	1