

# Do Hwan Kim

## List of Publications by Year in descending order

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48  
papers

1,608  
citations

394286

19  
h-index

302012

39  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1109  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical Co and Nb dual-doped MoS <sub>2</sub> nanosheets shelled micro-TiO <sub>2</sub> hollow spheres as effective multifunctional electrocatalysts for HER, OER, and ORR. <i>Nano Energy</i> , 2021, 82, 105750.	8.2	220
2	Rational Design of Core@shell Structured Co <sub>x</sub> @Cu <sub>2</sub> MoS <sub>4</sub> Hybridized MoS <sub>2</sub> /N,S-codoped Graphene as Advanced Electrocatalyst for Water Splitting and Zn-Air Battery. <i>Advanced Energy Materials</i> , 2020, 10, 1903289.	10.2	179
3	Rational design of multifunctional electrocatalyst: An approach towards efficient overall water splitting and rechargeable flexible solid-state zinc-air battery. <i>Applied Catalysis B: Environmental</i> , 2022, 300, 120752.	10.8	150
4	Single-Atom Co-Decorated MoS <sub>2</sub> Nanosheets Assembled on Metal Nitride Nanorod Arrays as an Efficient Bifunctional Electrocatalyst for pH-Universal Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2100233.	7.8	108
5	Molybdenum and Phosphorous Dual Doping in Cobalt Monolayer Interfacial Assembled Cobalt Nanowires for Efficient Overall Water Splitting. <i>Advanced Functional Materials</i> , 2020, 30, 2002533.	7.8	107
6	Novel core-shell CuMo-oxynitride@N-doped graphene nano hybrid as multifunctional catalysts for rechargeable zinc-air batteries and water splitting. <i>Nano Energy</i> , 2021, 85, 105987.	8.2	89
7	3D nickel molybdenum oxyselenide (Ni <sub>1-x</sub> Mo <sub>x</sub> OSe) nanoarchitectures as advanced multifunctional catalyst for Zn-air batteries and water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119909.	10.8	72
8	Ruthenium single atoms implanted continuous MoS <sub>2</sub> -Mo <sub>2</sub> C heterostructure for high-performance and stable water splitting. <i>Nano Energy</i> , 2021, 88, 106277.	8.2	68
9	Hierarchical 3D Oxygenated Cobalt Vanadium Selenide Nanosheets as Advanced Electrode for Flexible Zinc-Cobalt and Zinc-Air Batteries. <i>Small</i> , 2020, 16, e2004661.	5.2	54
10	Structural, electronic, and electrocatalytic evaluation of spinel transition metal sulfide supported reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1999-2011.	5.2	51
11	Atomic Heterointerface Engineering of Ni <sub>2</sub> P@NiSe <sub>2</sub> Nanosheets Coupled Zn-Based Arrays for High-Efficiency Solar-Assisted Water Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	49
12	Highly Effective Freshwater and Seawater Electrolysis Enabled by Atomic Rh-Modulated Co-CoO Lateral Heterostructures. <i>Small</i> , 2021, 17, e2103826.	5.2	47
13	Rational Engineering Co <sub>x</sub> O <sub>y</sub> Nanosheets via Phosphorous and Sulfur Dual-Coupling for Enhancing Water Splitting and Zn-Air Battery. <i>Advanced Functional Materials</i> , 2021, 31, 2007822.	7.8	44
14	Activated CuNi@Ni Core@shell structures via oxygen and nitrogen dual coordination assembled on 3D CNTs-graphene hybrid for high-performance water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 294, 120263.	10.8	44
15	Dissociative Chemisorption of Methanol on Ge(100). <i>Journal of Physical Chemistry C</i> , 2007, 111, 15013-15019.	1.5	37
16	Bifunctional Catalyst Derived from Sulfur-Doped VMoO <sub>x</sub> Nanolayer Shelled Co Nanosheets for Efficient Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 42944-42956.	4.0	26
17	Rational construction of Au@Co <sub>2</sub> N <sub>0.67</sub> nanodots-interspersed 3D interconnected N-graphene hollow sphere network for efficient water splitting and Zn-air battery. <i>Nano Energy</i> , 2021, 89, 106420.	8.2	26
18	Bidentate Structures of Acetic Acid on Ge(100): The Role of Carboxyl Oxygen. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5941-5945.	1.5	23

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19	Atomic and electronic structure of methanol on Ge(100). Surface Science, 2010, 604, 129-135.	0.8	22
20	Atomic and electronic structure of acetic acid on Ge(100). Surface Science, 2006, 600, 3629-3632.	0.8	19
21	Atomic and Electronic Structure of Pyrrole on Ge(100). Journal of Physical Chemistry C, 2008, 112, 7412-7419.	1.5	17
22	Hydrogen-Bonded Amino Acid Network of Histidine on Ge(100). Journal of Physical Chemistry C, 2011, 115, 4636-4641.	1.5	15
23	Chemical Reactions and Adsorption Geometries of Pyrrole on Ge(100). Journal of Physical Chemistry B, 2006, 110, 7938-7943.	1.2	13
24	Adsorption Structure and Reaction Mechanism of Purine on Ge(100) Studied by Scanning Tunneling Microscopy and Theoretical Calculations. Journal of Physical Chemistry C, 2012, 116, 6953-6959.	1.5	12
25	A single atom Ir doped heterophase of a NiMoP-NiMoP <sub>x</sub> O <sub>y</sub> ultrathin layer assembled on CNTs-graphene for high-performance water splitting. Journal of Materials Chemistry A, 2022, 10, 14604-14612.	5.2	12
26	Discrimination of Chiral Adsorption Configurations: Styrene on Germanium(100). Journal of Physical Chemistry C, 2009, 113, 1426-1432.	1.5	10
27	Dissociative adsorption of guanine on Ge(100). Chemical Communications, 2015, 51, 12815-12818.	2.2	10
28	Chromium-rich Cr <sub>x</sub> Ir <sub>1-x</sub> O <sub>2</sub> wire-in-tube alloys for boosted water oxidation with long standing electrocatalytic activity. Journal of Materials Chemistry A, 2022, 10, 13803-13813.	5.2	10
29	Creation and annihilation of single atom vacancy during subsurface diffusion. Physical Review B, 2010, 82, .	1.1	8
30	Subsurface Incorporation of Co Atoms into Si(100). Journal of Physical Chemistry C, 2011, 115, 15467-15470.	1.5	7
31	Functional Group-Selective Adsorption Using Scanning Tunneling Microscopy. ACS Nano, 2012, 6, 3597-3603.	7.3	6
32	Molecular tuning of amino acids to form two-dimensional molecular networks driven by conformational preorganization. Chemical Communications, 2016, 52, 14055-14058.	2.2	5
33	Chemical Reaction of Benzoic Acid with Ge(100): Effect of a Phenyl Substituent. Journal of Physical Chemistry C, 2016, 120, 14742-14748.	1.5	5
34	A first-principles study on the adsorption of ethylenediamine on Ge(100). Physical Chemistry Chemical Physics, 2017, 19, 16881-16887.	1.3	4
35	Chemisorption of Ethanol on Ge(100) Surface. Journal of Physical Chemistry C, 2018, 122, 15352-15358.	1.5	4
36	Atomic and electronic structure of styrene on Ge(100). Surface Science, 2011, 605, 1438-1444.	0.8	3

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37	Chemisorption of cis-2-butene-1,4-diol on Si(100): A theoretical investigation. <i>Surface Science</i> , 2012, 606, 1268-1273.	0.8	3
38	Adsorption Structures of Acetic Acid on Ge(100) at High Coverage. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18584-18592.	1.5	3
39	Dissociative adsorption of a multifunctional compound on a semiconductor surface: a theoretical study of the adsorption of hydroxylamine on Ge(100). <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15335-15343.	1.3	3
40	Reduction of Transition-Metal Columbite-Tantalite as a Highly Efficient Electrocatalyst for Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 15090-15102.	4.0	3
41	Structure of Pyrrole on Ge(100). <i>Japanese Journal of Applied Physics</i> , 2006, 45, 2148-2150.	0.8	2
42	Structural Properties of Norbornene Monolayers on Ge(100). <i>Journal of Physical Chemistry C</i> , 2009, 113, 14311-14315.	1.5	2
43	Functionalization of Ge(100) surface by adsorption of phenylthiol. <i>Applied Surface Science</i> , 2018, 456, 908-914.	3.1	2
44	Competing Reactions of Vinyl and Hydroxyl Groups of Vinyl Alcohol on Ge(100): Effects of Vinyl Substituent on Dissociative Adsorption. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17319-17327.	1.5	1
45	Temperature Dependence of the Reaction $\text{HCl} + \text{OH}^+ \rightarrow \text{Cl} + \text{H}_2\text{O}$ between 140 and 1100 K. <i>Bulletin of Chemical Society</i> , 2019, 40, 93-101.	1.0	1
46	Density Functional Theory Calculations of the Adsorption of Cytosine on Si(100). <i>Bulletin of the Korean Chemical Society</i> , 2020, 41, 1060-1067.	1.0	1
47	Nitrogen Atom Abstraction of Nitrogen Chemisorbed on W(100) Surface. <i>Bulletin of the Korean Chemical Society</i> , 2018, 39, 231-238.	1.0	0
48	Theoretical study of ethyl alcohol adsorbed on a germanium (100) surface. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 1585.	1.0	0