

# Hyeonhu Bae

## List of Publications by Year in descending order

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27  
papers

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citations

567144

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526166

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docs citations

28  
times ranked

751  
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical differences in 3D atomic structure of individual ligand-protected nanocrystals in solution. <i>Science</i> , 2020, 368, 60-67.	6.0	103
2	Enhancement in hydrogen storage capacities of light metal functionalized Boronâ€“Graphdiyne nanosheets. <i>Carbon</i> , 2019, 147, 199-205.	5.4	100
3	Sensing of volatile organic compounds on two-dimensional nitrogenated holey graphene, graphdiyne, and their heterostructure. <i>Carbon</i> , 2020, 163, 213-223.	5.4	77
4	Reversible hydrogen storage properties of defect-engineered $C_4N$ nanosheets under ambient conditions. <i>Carbon</i> , 2020, 163, 213-223.	5.4	69
5	Selective decoration of nitrogenated holey graphene (C <sub>2</sub> N) with titanium clusters for enhanced hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 7371-7380.	3.8	63
6	Hydrogen storage capacity of low-lying isomer of $C_{24}$ functionalized with Ti. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 9936-9945.	3.8	50
7	Ultrasensitive N-Channel Graphene Gas Sensors by Nondestructive Molecular Doping. <i>ACS Nano</i> , 2022, 16, 2176-2187.	7.3	42
8	High-throughput screening of metal-porphyrin-like graphenes for selective capture of carbon dioxide. <i>Scientific Reports</i> , 2016, 6, 21788.	1.6	31
9	Wafer-Scale Production of Transition Metal Dichalcogenides and Alloy Monolayers by Nanocrystal Conversion for Large-Scale Ultrathin Flexible Electronics. <i>Nano Letters</i> , 2021, 21, 9153-9163.	4.5	29
10	Two-Dimensional Bismuthene Nanosheets for Selective Detection of Toxic Gases. <i>ACS Applied Nano Materials</i> , 2022, 5, 2984-2993.	2.4	29
11	Highly sensitive and selective sensing properties of modified green phosphorene monolayers towards SF <sub>6</sub> decomposition gases. <i>Applied Surface Science</i> , 2020, 512, 145641.	3.1	28
12	Enhanced Hydrogen-Storage Capacity and Structural Stability of an Organic Clathrate Structure with Fullerene (C <sub>60</sub> ) Guests and Lithium Doping. <i>Chemistry of Materials</i> , 2018, 30, 3028-3039.	3.2	22
13	High-capacity reversible hydrogen storage properties of metal-decorated nitrogenated holey graphenes. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 10654-10664.	3.8	22
14	Capacity enhancement of polyolithiated functionalized boron nitride nanotubes: an efficient hydrogen storage medium. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15675-15682.	1.3	18
15	Density Functional Theory Study of Li-Functionalized Nanoporous R-Graphyneâ€“Metalâ€“Organic Frameworks for Reversible Hydrogen Storage. <i>ACS Applied Nano Materials</i> , 2021, 4, 3949-3957.	2.4	16
16	Calcium-decorated carbon nanostructures for the selective capture of carbon dioxide. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 29086-29091.	1.3	15
17	Tuning Hydrogen Storage Properties of Carbon Eneâ€“Yne Nanosheets through Selected Foreign Metal Functionalization. <i>Journal of Physical Chemistry C</i> , 2020, 124, 16827-16837.	1.5	15
18	Efficient Sensing Properties of Aluminum Nitride Nanosheets toward Toxic Pollutants under Gated Electric Field. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1645-1652.	2.0	15

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19	Competition between Hund's Rule and Jahn-Teller Distortion in Small Carbon Rings: A Quantum Monte Carlo Study. <i>Journal of Physical Chemistry A</i> , 2020, 124, 3636-3640.	1.1	13
20	Theoretical investigation of the vertical dielectric screening dependence on defects for few-layered van der Waals materials. <i>RSC Advances</i> , 2019, 9, 40309-40315.	1.7	12
21	Density Functional Theory Study on Sensing and Dielectric Properties of Arsenic Trisulfide Nanosheets for Detecting Volatile Organic Compounds. <i>ACS Applied Nano Materials</i> , 2021, 4, 5444-5453.	2.4	9
22	Steric effects of CO <sub>2</sub> binding to transition metal-benzene complexes: A first-principles study. <i>Current Applied Physics</i> , 2016, 16, 1124-1129.	1.1	8
23	Boron-Rich Boron Nitride Nanotubes as Highly Selective Adsorbents for Selected Diatomic Air Pollutants: A DFT Study. <i>Advanced Theory and Simulations</i> , 2022, 5, .	1.3	8
24	Control of CO <sub>2</sub> Capture Process on Transition-Metal-Porphyrin-like Graphene with Mechanical Strain. <i>ACS Omega</i> , 2018, 3, 10554-10563.	1.6	7
25	Unidirectional Alignment of AgCN Microwires on Distorted Transition Metal Dichalcogenide Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 8727-8735.	4.0	3
26	Conversion of CO <sub>2</sub> into Formic Acid on Transition Metal-Porphyrin-like Graphene: First Principles Calculations. <i>ACS Omega</i> , 2021, 6, 27045-27051.	1.6	3
27	Physisorption and Chemisorption of SF <sub>6</sub> by Transition Metal-Porphyrin Structure Embedded on Graphene Surface with Different Hapticities. <i>Journal of the Korean Physical Society</i> , 2020, 76, 1001-1004.	0.3	1