

Thanayut Kaewmaraya

List of Publications by Year in descending order

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39
papers

982
citations

394421

19
h-index

454955

30
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all docs

39
docs citations

39
times ranked

1236
citing authors

#	ARTICLE	IF	CITATIONS
1	Defect and Substitution-Induced Silicene Sensor to Probe Toxic Gases. <i>Journal of Physical Chemistry C</i> , 2016, 120, 25256-25262.	3.1	81
2	Novel green phosphorene as a superior chemical gas sensing material. <i>Journal of Hazardous Materials</i> , 2021, 401, 123340.	12.4	71
3	Drastic Improvement in Gas-Sensing Characteristics of Phosphorene Nanosheets under Vacancy Defects and Elemental Functionalization. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20186-20193.	3.1	60
4	Adsorption characteristics of DNA nucleobases, aromatic amino acids and heterocyclic molecules on silicene and germanene monolayers. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 2713-2720.	7.8	56
5	A manganese hexacyanoferrate framework with enlarged ion tunnels and two-species redox reaction for aqueous Al-ion batteries. <i>Nano Energy</i> , 2021, 84, 105945.	16.0	54
6	Defected and Functionalized Germanene-based Nanosensors under Sulfur Comprising Gas Exposure. <i>ACS Sensors</i> , 2018, 3, 867-874.	7.8	53
7	The study of structural, morphological and optical properties of (Al, Ga)-doped ZnO: DFT and experimental approaches. <i>Applied Surface Science</i> , 2019, 480, 621-635.	6.1	48
8	Functionalization of hydrogenated silicene with alkali and alkaline earth metals for efficient hydrogen storage. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 18900.	2.8	45
9	Binder-free trimetallic phosphate nanosheets as an electrode: Theoretical and experimental investigation. <i>Journal of Power Sources</i> , 2021, 513, 230556.	7.8	45
10	Crystal Phase Effects in Si Nanowire Polytypes and Their Homojunctions. <i>Nano Letters</i> , 2016, 16, 5694-5700.	9.1	38
11	Graphitic carbon nitride nano sheets functionalized with selected transition metal dopants: an efficient way to store CO ₂ . <i>Nanotechnology</i> , 2018, 29, 415502.	2.6	30
12	Enhanced thermoelectric properties of N-doped ZnO and SrTiO ₃ : A first-principles study. <i>Applied Surface Science</i> , 2018, 446, 47-58.	6.1	26
13	Revealing an unusual transparent phase of superhard iron tetraboride under high pressure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17050-17053.	7.1	23
14	Electronic structure and ionic diffusion of green battery cathode material: Mg ₂ Mo ₆ S ₈ . <i>Solid State Ionics</i> , 2014, 261, 17-20.	2.7	23
15	The ideal commensurate value of Sc and the superconducting phase under high pressure. <i>Journal of Applied Physics</i> , 2018, 124, 225901.	2.5	23
16	Strain-induced tunability of optical and photocatalytic properties of ZnO mono-layer nanosheet. <i>Computational Materials Science</i> , 2014, 91, 38-42.	3.0	22
17	Accurate Estimation of Band Offsets in Group IV Polytype Junctions: A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5820-5828.	3.1	22
18	Functionalized carbon nitride (g-CN) monolayer as a promising energy storage material: A density functional theory study. <i>Applied Surface Science</i> , 2017, 419, 708-712.	6.1	22

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19	Efficient suppression of the shuttle effect in Na ⁺ S batteries with an As ₂ S ₃ anchoring monolayer. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 27300-27307.	2.8	20
20	Structural Phase Transitions, Electronic Properties, and Hardness of RuB ₄ under High Pressure in Comparison with FeB ₄ and OsB ₄ . <i>Journal of Physical Chemistry C</i> , 2020, 124, 14804-14810.	3.1	20
21	Elucidating Synergistic Mechanisms of Adsorption and Electrocatalysis of Polysulfides on Double-Transition Metal MXenes for Na ⁺ S Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 10298-10307.	8.0	18
22	Improved sensing characteristics of methane over ZnO nano sheets upon implanting defects and foreign atoms substitution. <i>Nanotechnology</i> , 2017, 28, 415502.	2.6	17
23	Dynamic compression of dense oxide (Gd ₃ Ga ₅ O ₁₂) from 0.4 to 2.6%TPa: Universal Hugoniot of fluid metals. <i>Scientific Reports</i> , 2016, 6, 26000.	3.3	16
24	Water adsorption on ZnO(101̄,0): The role of intrinsic defects. <i>Europhysics Letters</i> , 2012, 97, 17014.	2.0	15
25	Electronic Properties of <i>h</i> -BCN ⁺ Blue Phosphorene van der Waals Heterostructures. <i>ChemPhysChem</i> , 2018, 19, 612-618.	2.1	14
26	Theoretical investigation of xenon-hydrogen solids under pressure using <i>ab initio</i> DFT and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:mi} \text{G} \langle \text{mml:mi} \text{W} \langle \text{mml:math} \rangle \text{calculations.} \rangle \rangle \rangle$ Physical Review B, 2011, 84, .	3.2	13
27	Hybrid density functional study of electronic and optical properties of phase change memory material: Ge ₂ Sb ₂ Te ₅ . <i>Journal of Applied Physics</i> , 2013, 113, 033510.	2.5	13
28	Novel BCN-phosphorene bilayer: Dependence of carbon doping on band offsets for potential photovoltaic applications. <i>Applied Surface Science</i> , 2020, 504, 144327.	6.1	13
29	Room temperature NO ₂ sensing performance of a-C-decorated TeO ₂ nanowires. <i>Sensors and Actuators B: Chemical</i> , 2022, 363, 131853.	7.8	12
30	Molecular dynamics study of amorphous Ga-doped In ₂ O ₃ : A promising material for phase change memory devices. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	11
31	Structural and Vibrational Properties of Layered Data Storage Material: Ge ₂ Sb ₂ Te ₅ . <i>Science of Advanced Materials</i> , 2013, 5, 1493-1497.	0.7	10
32	Two-dimensional titanium carbide (Ti ₃ C ₂ T _x) MXenes to inhibit the shuttle effect in sodium sulfur batteries. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4187-4195.	2.8	10
33	Scavenging properties of yttrium nitride monolayer towards toxic sulfur gases. <i>Applied Surface Science</i> , 2021, 537, 147711.	6.1	8
34	The quantum confined Stark effect in N-doped ZnO/ZnO/N-doped ZnO nanostructures for infrared and terahertz applications. <i>Nanotechnology</i> , 2020, 31, 445207.	2.6	8
35	A new, layered monoclinic phase of Co ₃ O ₄ at high pressure. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19957-19961.	2.8	6
36	Atomistic study of promising catalyst and electrode material for memory capacitors: Platinum oxides. <i>Computational Materials Science</i> , 2013, 79, 804-810.	3.0	5

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37	Extrinsic Doping in Group IV Hexagonal-Diamond-Type Crystals. Journal of Physical Chemistry C, 2020, 124, 17290-17298.	3.1	5
38	Electronic structures and optical properties of nanoporous complex oxide $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$ (C12A7) under high pressure. Computational Materials Science, 2021, 194, 110456.	3.0	3
39	Conversion of CO_2 into Formic Acid on Transition Metal-Porphyrin-like Graphene: First Principles Calculations. ACS Omega, 2021, 6, 27045-27051.	3.5	3