Rahul Kumar

List of Publications by Year
in descending order

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33	1,676	471509 17	477307 29
papers	citations	h-index	g-index

33	33	33	1900
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coupled excitonic quasiparticle-electronâ€“phonon and interlayer coupling in vertically and horizontally aligned MoS₂. Journal of Materials Chemistry C, 2022, 10, 5684-5692.	5.5	4
2	Electron-phonon coupling, thermal expansion coefficient, resonance effect, and phonon dynamics in high-quality CVD-grown monolayer and bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoSe</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2022, 105, .	3.2	5
3	Conducting polymer-based nanostructures for gas sensors. Coordination Chemistry Reviews, 2022, 462, 214517.	18.8	88
4	Plasmonic Au Nanoparticles Sensitized MoSâ„ for Bifunctional NOâ„ and Light Sensing. IEEE Sensors Journal, 2021, 21, 4190-4197.	4.7	12
5	Two-dimensional transition metal dichalcogenides and their composites for lab-based sensing applications: Recent progress and future outlook. Sensors and Actuators A: Physical, 2021, 318, 112517.	4.1	21
6	Davydov Splitting, Resonance Effect and Phonon Dynamics in Chemical Vapor Deposition Grown Layered MoS₂. Nanotechnology, 2021, 32, 285705.	2.6	12
7	MoS₂-PVP Nanocomposites Decorated ZnO Microsheets for Efficient Hydrogen Detection. IEEE Sensors Journal, 2021, 21, 8878-8885.	4.7	15
8	Visualization of band offsets at few-layer MoS₂/Ge heterojunction. Nanotechnology, 2021, 32, 375711.	2.6	8
9	Gas sensing materials roadmap. Journal of Physics Condensed Matter, 2021, 33, 303001.	1.8	49
10	Single-atom catalysts boosted ultrathin film sensors. Rare Metals, 2020, 39, 1110-1112.	7.1	15
11	Room-Temperature Gas Sensors Under Photoactivation: From Metal Oxides to 2D Materials. Nano-Micro Letters, 2020, 12, 164.	27.0	201
12	Efficient NO₂ sensing performance of a low-cost nanostructured sensor derived from molybdenite concentrate. Green Chemistry, 2020, 22, 6981-6991.	9.0	10
13	Anisotropic electronâ€“photonâ€“phonon coupling in layered MoS₂. Journal of Physics Condensed Matter, 2020, 32, 415702.	1.8	6
14	MoS₂â€Based Nanomaterials for Roomâ€Temperature Gas Sensors. Advanced Materials Technologies, 2020, 5, 1901062.	5.8	138
15	Transition metal dichalcogenides-based flexible gas sensors. Sensors and Actuators A: Physical, 2020, 303, 111875.	4.1	125
16	Boosting Sensing Performance of Vacancy-Containing Vertically Aligned MoS₂ Using rGO Particles. IEEE Sensors Journal, 2019, 19, 10214-10220.	4.7	18
17	Ultraviolet photodetector based on chemical vapor deposition grown MoO3 microplates. , 2019, , .		1
18	A high-performance hydrogen sensor based on a reverse-biased MoS₂/GaN heterojunction. Nanotechnology, 2019, 30, 314001.	2.6	42

#	Article	IF	Citations
19	Growth of Large-Scale Î±-MoO3 on SiO2 and Its Uses for Efficient Hydrogen Sensing Application. , 2019, , .		0
20	Scalable Growth of High-Quality MoS2 Film by Magnetron Sputtering: Application for NO2 Gas Sensing. , 2019, , .		1
21	Growth of MoS₂â€“MoO₃ Hybrid Microflowers via Controlled Vapor Transport Process for Efficient Gas Sensing at Room Temperature. Advanced Materials Interfaces, 2018, 5, 1800071.	3.7	93
22	Enhanced sensing response with complete recovery of MoS2 sensor under photoexcitation. AIP Conference Proceedings, 2018, , .	0.4	4
23	Photoactivated Mixed In-Plane and Edge-Enriched p-Type MoS₂ Flake-Based NO₂ Sensor Working at Room Temperature. ACS Sensors, 2018, 3, 998-1004.	7.8	149
24	High performance NO2 sensor using MoS2 nanowires network. Applied Physics Letters, 2018, 112, .	3.3	87
25	Highly selective and reversible NO₂ gas sensor using vertically aligned MoS₂ flake networks. Nanotechnology, 2018, 29, 464001.	2.6	79
26	High-performance ultraviolet detector employing out-of-plane rGO/MoS₂ PN heterostructure. , 2018, , .		0
27	NO2 sensing at room temperature using vertically aligned MoS2 flakes network. AIP Conference Proceedings, 2018, , .	0.4	1
28	High-performance photodetector based on hybrid of MoS₂ and reduced graphene oxide. Nanotechnology, 2018, 29, 404001.	2.6	25
29	Wafer-scale synthesis of a uniform film of few-layer MoS₂ on GaN for 2D heterojunction ultraviolet photodetector. Journal Physics D: Applied Physics, 2018, 51, 374003.	2.8	49
30	Enhanced Carrier Density in a MoS₂/Si Heterojunction-Based Photodetector by Inverse Auger Process. IEEE Transactions on Electron Devices, 2018, 65, 4149-4154.	3.0	15
31	Determination of band alignment at two-dimensional MoS2/Si van der Waals heterojunction. Journal of Applied Physics, 2018, 123, .	2.5	19
32	UV-Activated MoS₂ Based Fast and Reversible NO₂ Sensor at Room Temperature. ACS Sensors, 2017, 2, 1744-1752.	7.8	346
33	Efficient room temperature hydrogen sensor based on UV-activated ZnO nano-network. Nanotechnology, 2017, 28, 365502.	2.6	38