

Challappally Kesav Sumesh

List of Publications by Year in descending order

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64
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201575

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64
all docs

64
docs citations

64
times ranked

1031
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced photoresponse by plasmon resonance in Ni-WS ₂ /Si photodiode. Materials Research Bulletin, 2022, 145, 111518.	2.7	16
2	Annealing induced phase transformation from amorphous to polycrystalline SnSe ₂ thin film photo detector with enhanced light-matter interaction. Journal of Non-Crystalline Solids, 2022, 578, 121353.	1.5	11
3	Synergistic 2D MoSe ₂ @WSe ₂ nano-hybrid heterostructure toward superior hydrogen evolution and flexible supercapacitor. Nanoscale, 2022, 14, 6636-6647.	2.8	23
4	Photodetector based on liquid phase exfoliated SnSe quantum dots. Optical Materials, 2022, 125, 112110.	1.7	7
5	Large-area binder free synthesis of Cu ₂ CoSnS ₄ on Ag-substrate for electrocatalytic hydrogen evolution. Surfaces and Interfaces, 2022, 29, 101807.	1.5	5
6	MoS ₂ nanosheets on Cu-foil for rapid electrocatalytic hydrogen evolution reaction. Journal of Electroanalytical Chemistry, 2022, 912, 116270.	1.9	15
7	Enhanced electrocatalysis of WSe ₂ nanosheets by partial oxidation for hydrogen generation. International Journal of Energy Research, 2022, 46, 12073-12081.	2.2	29
8	ZnO-WS ₂ Nano-heterojunction/ITO photodetector for detection of visible light. Materials Science in Semiconductor Processing, 2022, 148, 106778.	1.9	11
9	Flexible photodetector based on Graphite/ZnO@WS ₂ nano-hybrids on paper. Journal of Materials Science: Materials in Electronics, 2022, 33, 13771-13781.	1.1	7
10	Self-powered photodetector functionalized by SnS quantum dots. Optical Materials, 2022, 129, 112504.	1.7	11
11	Atomically thin WSe ₂ nanosheets for fabrication of high-performance p-Si/WSe ₂ heterostructure. Optical Materials, 2022, 129, 112537.	1.7	7
12	Highly sensitive and flexible pressure sensor based on two-dimensional MoSe ₂ nanosheets for online wrist pulse monitoring. Journal of Colloid and Interface Science, 2021, 584, 495-504.	5.0	49
13	Plasmon-enhanced photoresponse in Ag-WS ₂ /Si heterojunction. Applied Surface Science, 2021, 538, 148121.	3.1	48
14	Superior electrochemical activity of CdSe thin film by chromium substitutional doping. Journal of Alloys and Compounds, 2021, 862, 158016.	2.8	11
15	Rhenium substitutional doping for enhanced photoresponse of n-SnSe ₂ /p-Si heterojunction based tunable and high-performance visible-light photodetector. Applied Surface Science, 2021, 536, 147739.	3.1	30
16	Photosensitive WS ₂ /ZnO Nano-Heterostructure-Based Electrocatalysts for Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 755-762.	2.5	49
17	Flexible piezo-resistive pressure sensor based on conducting PANI on paper substrate. Synthetic Metals, 2021, 273, 116697.	2.1	38
18	Paper-Based Flexible and Photosensitive Electrodes for Electrochemical Hydrogen Evolution. ACS Applied Energy Materials, 2021, 4, 4815-4822.	2.5	42

#	ARTICLE	IF	CITATIONS
19	MoS ₂ /WSe ₂ nanohybrids for flexible paper-based photodetectors. Nanotechnology, 2021, 32, 315709.	1.3	35
20	Ultrasonically Exfoliated Nanocrystal-Based Z-Scheme SnSe ₂ /WSe ₂ Heterojunction for a Superior Electrochemical Photoresponse. Journal of Physical Chemistry C, 2021, 125, 14729-14740.	1.5	14
21	Microwave assisted synthesis of SnS nanosheets for fabrication of large area SnS/Si heterojunction. Solar Energy, 2021, 221, 412-417.	2.9	34
22	Electrophoretic Deposition of MoSe ₂ –MoO _x Nanosheets for Enhanced Electrocatalytic Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 7891-7899.	2.5	41
23	WSe ₂ -PANI nanohybrid structure as efficient electrocatalyst for photo-enhanced hydrogen evolution reaction. Journal of Alloys and Compounds, 2021, 876, 160179.	2.8	36
24	Electrical properties of Ag/p-Cu ₂ NiSnS ₄ thin film Schottky diode. Materials Today Communications, 2021, 28, 102697.	0.9	8
25	Photosensitive electrocatalysts based on Ni–WS ₂ nanohybrids for hydrogen evolution reaction. Nanotechnology, 2021, 32, 505407.	1.3	16
26	WSe ₂ crystals on paper: flexible, large area and broadband photodetectors. Nanotechnology, 2021, 32, 505202.	1.3	16
27	Enhanced electrocatalytic hydrogen evolution reaction by injection of photogenerated electrons in Ag/WS ₂ nanohybrids. Applied Surface Science, 2021, 563, 150323.	3.1	37
28	Zinc oxide functionalized molybdenum disulfide heterostructures as efficient electrocatalysts for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 619-628.	3.8	47
29	Self-powered photodetector based on SnSe ₂ /MoSe ₂ heterostructure. Materials Today Energy, 2020, 18, 100550.	2.5	17
30	Enhanced Antifungal Activity of WS ₂ /ZnO Nanohybrid against <i>Candida albicans</i> . ACS Biomaterials Science and Engineering, 2020, 6, 6069-6075.	2.6	16
31	WS ₂ Nanosheet/Graphene Heterostructures for Paper-Based Flexible Photodetectors. ACS Applied Nano Materials, 2020, 3, 6935-6944.	2.4	97
32	Solution-Processed Uniform MoSe ₂ –WSe ₂ Heterojunction Thin Film on Silicon Substrate for Superior and Tunable Photodetection. ACS Sustainable Chemistry and Engineering, 2020, 8, 4809-4817.	3.2	35
33	Large area, broadband and highly sensitive photodetector based on ZnO-WS ₂ /Si heterojunction. Solar Energy, 2020, 206, 974-982.	2.9	53
34	Flexible paper based piezo-resistive sensor functionalised by 2D-WSe ₂ nanosheets. Nanotechnology, 2020, 31, 435503.	1.3	39
35	Visible light enhanced photocatalytic performance of WS ₂ catalyst for the degradation of ternary dye mixture. AIP Conference Proceedings, 2020, , .	0.3	4
36	Transferrable thin film of ultrasonically exfoliated MoSe ₂ nanocrystals for efficient visible-light photodetector. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 119, 114019.	1.3	29

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37	Low cost and flexible photodetector based on WSe ₂ Nanosheets/Graphite heterostructure. Synthetic Metals, 2020, 265, 116400.	2.1	41
38	One-Dimensional/Two-Dimensional/Three-Dimensional Dual Heterostructure Based on MoS ₂ -Modified ZnO-Heterojunction Diode with Silicon. Journal of Physical Chemistry C, 2019, 123, 21941-21949.	1.5	33
39	Two-dimensional semiconductor transition metal based chalcogenide based heterostructures for water splitting applications. Dalton Transactions, 2019, 48, 12772-12802.	1.6	76
40	Growth and application of WSe ₂ single crystal synthesized by DVT in thin film hetero-junction photodetector. European Physical Journal B, 2019, 92, 1.	0.6	16
41	Paper-Based Flexible Photodetector Functionalized by WSe ₂ Nanodots. ACS Applied Nano Materials, 2019, 2, 2758-2766.	2.4	106
42	Fabrication, photoresponse and temperature dependence of n-VO ₂ /n-MoSe ₂ heterojunction diode. Superlattices and Microstructures, 2019, 130, 160-167.	1.4	26
43	Nanocatalytic physicochemical adsorption and degradation of organic dyes. Pramana - Journal of Physics, 2019, 92, 1.	0.9	6
44	Towards efficient photon management in nanostructured solar cells: Role of 2D layered transition metal dichalcogenide semiconductors. Solar Energy Materials and Solar Cells, 2019, 192, 16-23.	3.0	34
45	Two-Step Facile Preparation of MoS ₂ -ZnO Nanocomposite as Efficient Photocatalyst for Methylene Blue (Dye) Degradation. Electronic Materials Letters, 2019, 15, 119-132.	1.0	33
46	Temperature dependant electronic charge transport characteristics at MX ₂ (M=Mo, W; X=S, Se)/Si heterojunction devices. Journal of Materials Science: Materials in Electronics, 2019, 30, 4117-4127.	1.1	1
47	Investigation of structural, electrical and optical properties of SbXW ₁ -XSe ₂ single crystals. Materials Science in Semiconductor Processing, 2018, 81, 108-112.	1.9	30
48	Effect of doping on all TMC vertical heterointerfaces. AIP Conference Proceedings, 2018, , .	0.3	2
49	Fabrication and photoresponse of n- WS ₂ / p-V _{0.25} . Pramana - Journal of Physics, 2018, 91, 1.	0.9	12
50	An approach for scalable production of silver (Ag) decorated WS ₂ nanosheets. AIP Conference Proceedings, 2018, , .	0.3	5
51	Salt assisted sonochemical exfoliation and synthesis of highly stable few-to-monolayer WS ₂ quantum dots with tunable optical properties. Journal of Materials Science: Materials in Electronics, 2017, 28, 7184-7189.	1.1	17
52	Layer-engineered I-V characteristics of p-Si/WS ₂ Van der Waals Heterostructure diode. European Physical Journal Plus, 2017, 132, 1.	1.2	21
53	Crystal growth, characterization and photo detection properties of 2H _{0.75} W _{0.25} Se ₂ ternary alloy with 1T _{0.5} Se ₂ secondary phase. Materials Research Express, 2017, 4, 106306.	0.8	50
54	One pot sono-chemical synthesis of 2D layered MoS ₂ nanosheets. AIP Conference Proceedings, 2016, , .	0.3	3

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55	Excitonic emission and absorption resonances in V _{0.25} W _{0.75} Se ₂ single crystals grown by direct vapour transport technique. Journal of Crystal Growth, 2016, 441, 101-106.	0.7	37
56	UV light induced photodegradation of organic dye by ZnO nanocatalysts. AIP Conference Proceedings, 2013, , .	0.3	4
57	Analysis of barrier height inhomogeneities in Al-pSnSe Schottky diode. EPJ Applied Physics, 2012, 59, 10103.	0.3	4
58	Low temperature Hall effect studies of InSb thin films grown by flash evaporation. EPJ Applied Physics, 2011, 54, 10303.	0.3	3
59	Barrier height inhomogeneities in Cu-nMoSe ₂ Schottky diode. EPJ Applied Physics, 2011, 56, 10103.	0.3	0
60	Low temperature electrical transport properties in p-SnSe single crystals. EPJ Applied Physics, 2011, 53, 10302.	0.3	10
61	Analysis of current-voltage-temperature characteristics of In and Cu contacts on n-type MoSe ₂ single crystals. Crystal Research and Technology, 2011, 46, 61-64.	0.6	5
62	Current Transport in Copper Schottky Contacts to a-Plane/c-Plane n-Type MoSe ₂ . Chinese Physics Letters, 2011, 28, 087201.	1.3	4
63	Current transport characteristics of pSe-nMoSe ₂ heterojunction diode. EPJ Applied Physics, 2010, 52, 30302.	0.3	1
64	Investigation of carrier scattering mechanisms in molybdenum diselenide single crystals by hall effect measurements. Crystal Research and Technology, 2010, 45, 957-960.	0.6	5