Sivacarendran Balendhran

List of Publications by Year
in descending order

56 papers	5,255 citations	109321 35 h-index	161849 54 g-index
59 all docs	59 docs citations	59 times ranked	8318 citing authors

#	Article	IF	Citations
1	Elemental Analogues of Graphene: Silicene, Germanene, Stanene, and Phosphorene. Small, 2015, 11, 640-652.	10.0	725
2	Twoâ€Dimensional Molybdenum Trioxide and Dichalcogenides. Advanced Functional Materials, 2013, 23, 3952-3970.	14.9	443
3	Enhanced Charge Carrier Mobility in Twoâ€Dimensional High Dielectric Molybdenum Oxide. Advanced Materials, 2013, 25, 109-114.	21.0	355
4	Transition metal oxides â€“ Thermoelectric properties. Progress in Materials Science, 2013, 58, 1443-1489.	32.8	302
5	Electrochemical Control of Photoluminescence in Two-Dimensional MoS₂ Nanoflakes. ACS Nano, 2013, 7, 10083-10093.	14.6	282
6	Atomically thin layers of MoS₂via a two step thermal evaporationâ€“exfoliation method. Nanoscale, 2012, 4, 461-466.	5.6	254
7	Two dimensional Î±-MoO3 nanoflakes obtained using solvent-assisted grinding and sonication method: Application for H2 gas sensing. Sensors and Actuators B: Chemical, 2014, 192, 196-204.	7.8	190
8	The anodized crystalline WO3 nanoporous network with enhanced electrochromic properties. Nanoscale, 2012, 4, 5980.	5.6	164
9	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	14.9	164
10	Field Effect Biosensing Platform Based on 2D Î±-MoO₃. ACS Nano, 2013, 7, 9753-9760.	14.6	161
11	Characterization of metal contacts for two-dimensional MoS2 nanoflakes. Applied Physics Letters, 2013, 103, .	3.3	144
12	Ambient Protection of Fewâ€Layer Black Phosphorus via Sequestration of Reactive Oxygen Species. Advanced Materials, 2017, 29, 1700152.	21.0	141
13	Actively variable-spectrum optoelectronics with black phosphorus. Nature, 2021, 596, 232-237.	27.8	132
14	Black phosphorus: ambient degradation and strategies for protection. 2D Materials, 2018, 5, 032001.	4.4	119
15	Nanostructured copper oxides as ethanol vapour sensors. Sensors and Actuators B: Chemical, 2013, 185, 620-627.	7.8	118
16	Nanoscale Resistive Switching in Amorphous Perovskite Oxide (<i>aâ€</i>SrTiO₃) Memristors. Advanced Functional Materials, 2014, 24, 6741-6750.	14.9	111
17	Defining the role of humidity in the ambient degradation of few-layer black phosphorus. 2D Materials, 2017, 4, 015025.	4.4	110
18	CNT/PDMS composite membranes for H2 and CH4 gas separation. International Journal of Hydrogen Energy, 2013, 38, 10494-10501.	7.1	97

#	Article	IF	Citations
19	Degradation of black phosphorus is contingent on UVâ€“blue light exposure. Npj 2D Materials and Applications, 2017, 1, .	7.9	95
20	ZnO based thermopower wave sources. Chemical Communications, 2012, 48, 7462.	4.1	75
21	Enhancing the current density of electrodeposited ZnOâ€“Cu2O solar cells by engineering their heterointerfaces. Journal of Materials Chemistry, 2012, 22, 21767.	6.7	74
22	MnO₂-Based Thermopower Wave Sources with Exceptionally Large Output Voltages. Journal of Physical Chemistry C, 2013, 117, 9137-9142.	3.1	71
23	Donorâ€Induced Performance Tuning of Amorphous SrTiO₃ Memristive Nanodevices: Multistate Resistive Switching and Mechanical Tunability. Advanced Functional Materials, 2015, 25, 3172-3182.	14.9	68
24	Edge-oriented and steerable hyperbolic polaritons in anisotropic van der Waals nanocavities. Nature Communications, 2020, 11, 6086.	12.8	67
25	Proton intercalated two-dimensional WO₃nano-flakes with enhanced charge-carrier mobility at room temperature. Nanoscale, 2014, 6, 15029-15036.	5.6	66
26	Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors. Advanced Materials, 2020, 32, e2004247.	21.0	66
27	Anodic formation of a thick three-dimensional nanoporous WO3 film and its photocatalytic property. Electrochemistry Communications, 2013, 27, 128-132.	4.7	58
28	Engineering electrodeposited ZnO films and their memristive switching performance. Physical Chemistry Chemical Physics, 2013, 15, 10376.	2.8	52
29	Low-Temperature Fabrication of Alkali Metalâ€“Organic Charge Transfer Complexes on Cotton Textile for Optoelectronics and Gas Sensing. Langmuir, 2015, 31, 1581-1587.	3.5	51
30	Large-area synthesis of 2D MoO _{3â^’ <i>x</i>} for enhanced optoelectronic applications. 2D Materials, 2019, 6, 035031.	4.4	48
31	Dual Selective Gas Sensing Characteristics of 2D Î±-MoO_{3â€“<i>x</i>} via a Facile Transfer Process. ACS Applied Materials & Interfaces, 2019, 11, 40189-40195.	8.0	47
32	Reversible resistive switching behaviour in CVD grown, large area MoO_x. Nanoscale, 2018, 10, 19711-19719.	5.6	46
33	Electrically Activated UV-A Filters Based on Electrochromic MoO_{3â€“<i>x</i>}. ACS Applied Materials & Interfaces, 2020, 12, 16997-17003.	8.0	45
34	Spectrally Selective Mid-Wave Infrared Detection Using Fabry-PÃ©rot Cavity Enhanced Black Phosphorus 2D Photodiodes. ACS Nano, 2020, 14, 13645-13651.	14.6	41
35	3-D nanorod arrays of metalâ€“organic KTCNQ semiconductor on textiles for flexible organic electronics. RSC Advances, 2013, 3, 17654.	3.6	40
36	Effects of plasma-treatment on the electrical and optoelectronic properties of layered black phosphorus. Applied Materials Today, 2018, 12, 244-249.	4.3	38

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37	Long-Wave Infrared Photodetectors Based on 2D Platinum Diselenide atop Optical Cavity Substrates. ACS Nano, 2021, 15, 6573-6581.	14.6	29
38	Lightâ€“Matter Interaction Enhancement in Anisotropic 2D Black Phosphorus via Polarization-Tailoring Nano-Optics. ACS Photonics, 2021, 8, 1120-1128.	6.6	20
39	Compact Chemical Identifier Based on Plasmonic Metasurface Integrated with Microbolometer Array. Laser and Photonics Reviews, 2022, 16, .	8.7	17
40	Mixed Ionicâ€Electronic Charge Transport in Layered Blackâ€Phosphorus for Lowâ€Power Memory. Advanced Functional Materials, 2022, 32, 2107068.	14.9	16
41	Generating strong room-temperature photoluminescence in black phosphorus using organic molecules. 2D Materials, 2019, 6, 015009.	4.4	15
42	Two-dimensional MoO ₃ via a top-down chemical thinning route. 2D Materials, 2017, 4, 035008.	4.4	14
43	Monocrystalline Antimonene Nanosheets via Physical Vapor Deposition. Advanced Materials Interfaces, 2020, 7, 2001678.	3.7	14
44	Midâ€Wave Infrared Polarizationâ€Independent Graphene Photoconductor with Integrated Plasmonic Nanoantennas Operating at Room Temperature. Advanced Optical Materials, 2021, 9, 2001854.	7.3	11
45	Copper Tetracyanoquinodimethane (CuTCNQ): A Metalâ€“Organic Semiconductor for Room-Temperature Visible to Long-Wave Infrared Photodetection. ACS Applied Materials & Interfaces, 2021, 13, 38544-38552.	8.0	10
46	Enhanced Charge Carrier Mobility in Twoâ€Dimensional High Dielectric Molybdenum Oxide (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	9
47	Nonvolatile Resistive Switching in Layered InSe via Electrochemical Cation Diffusion. Advanced Electronic Materials, 2022, 8, .	5.1	8
48	Visible to Short-Wave Infrared Photodetectors Based on ZrGeTe₄ van der Waals Materials. ACS Applied Materials & Interfaces, 2021, 13, 45881-45889.	8.0	7
49	Semiconductors: Twoâ€Dimensional Molybdenum Trioxide and Dichalcogenides (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	14.9	6
50	Helicity-selective Raman scattering from in-plane anisotropic Î±-MoO3. Applied Physics Letters, 2021, 119, .	3.3	6
51	Broadband Photodetectors: Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors (Adv. Mater. 45/2020). Advanced Materials, 2020, 32, 2070338.	21.0	2
52	Charge injection in vertically stacked multi-layer black phosphorus. Applied Materials Today, 2020, 18, 100481.	4.3	1
53	Longwave Infrared Photoresponse in Copper 7,7,8,8-tetracyano-2,3,5,6-tetraflouroquinodimethane (CuTCNQF4). , 2021, , .		0
54	Visible to Long-Wave Infrared Photodetectors based on Copper Tetracyanoquinodimethane (CuTCNQ) Crystals. , 2020, , .		0

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55	Compact Chemical Identifier Based on Plasmonic Metasurface Integrated with Microbolometer Array (Laser Photonics Rev. 16(4)/2022). Laser and Photonics Reviews, 2022, 16, 2270016.	8.7	0
56	Experimental and theoretical characterization of x-ray induced excitons, magnons, and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>d</mml:mi><mml:mi>d</mml:mi></mml:mrow></mml:ma transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoO</mml:mi><mml:mn>3</mml:mn></mml:msub></mr nanosheets. Physical Review Materials, 2022, 6, .	2.4	0