

# Pawan Kumar

## List of Publications by Year in descending order

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41  
papers

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docs citations

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times ranked

1125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polyethylene Hydrogenolysis at Mild Conditions over Ruthenium on Tungstated Zirconia. <i>Jacs Au</i> , 2021, 1, 1422-1434.	3.6	95
2	Highly luminescent biocompatible CsPbBr <sub>3</sub> @SiO <sub>2</sub> core-shell nanoprobe for bioimaging and drug delivery. <i>Journal of Materials Chemistry B</i> , 2020, 8, 10337-10345.	2.9	59
3	Light-matter coupling in large-area van der Waals superlattices. <i>Nature Nanotechnology</i> , 2022, 17, 182-189.	15.6	49
4	Horizontally and vertically aligned growth of strained MoS <sub>2</sub> layers with dissimilar wetting and catalytic behaviors. <i>CrystEngComm</i> , 2017, 19, 5068-5078.	1.3	39
5	Effect of Sulfur Evaporation Rate on Screw Dislocation Driven Growth of MoS <sub>2</sub> with High Atomic Step Density. <i>Crystal Growth and Design</i> , 2016, 16, 7145-7154.	1.4	38
6	Phase and Vacancy Modulation in Tungsten Oxide: Electrochemical Hydrogen Evolution. <i>ChemElectroChem</i> , 2019, 6, 3420-3428.	1.7	35
7	Direct Optoelectronic Imaging of 2D Semiconductor-3D Metal Buried Interfaces. <i>ACS Nano</i> , 2021, 15, 5618-5630.	7.3	35
8	Direct visualization of out-of-equilibrium structural transformations in atomically thin chalcogenides. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	31
9	Nanoscale Chemical and Structural Analysis during <i>In Situ</i> Scanning/Transmission Electron Microscopy in Liquids. <i>ACS Nano</i> , 2021, 15, 10228-10240.	7.3	29
10	Phase engineering of seamless heterophase homojunctions with co-existing 3R and 2H phases in WS <sub>2</sub> monolayers. <i>Nanoscale</i> , 2018, 10, 3320-3330.	2.8	27
11	Design and Implementation of Quad-Element Super-Wideband MIMO Antenna for IoT Applications. <i>IEEE Access</i> , 2020, 8, 226697-226704.	2.6	27
12	Design and Implementation of Quad-Port MIMO Antenna with Dual-Band Elimination Characteristics for Ultra-Wideband Applications. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1715.	1.3	24
13	Utilization of zeolite/polymer composites for gas sensing: A review. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 1007-1020.	4.0	23
14	Design of Quad-Port MIMO/Diversity Antenna with Triple-Band Elimination Characteristics for Super-Wideband Applications. <i>Sensors</i> , 2020, 20, 624.	2.1	23
15	High-Efficiency WSe <sub>2</sub> Photovoltaic Devices with Electron-Selective Contacts. <i>ACS Nano</i> , 2022, 16, 8827-8836.	7.3	22
16	High-Density, Localized Quantum Emitters in Strained 2D Semiconductors. <i>ACS Nano</i> , 2022, 16, 9651-9659.	7.3	21
17	Competing thermal expansion mismatch and lattice strain engineered growth of crack free WS <sub>2</sub> in-plane heterostructures. <i>Journal of Materials Chemistry C</i> , 2018, 6, 11407-11415.	2.7	19
18	Growth and microstructural evolution of WS <sub>2</sub> nanostructures with tunable field and light modulated electrical transport. <i>Applied Surface Science</i> , 2018, 436, 846-853.	3.1	18

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19	Self-Hybridized Polaritonic Emission from Layered Perovskites. <i>Nano Letters</i> , 2021, 21, 6245-6252.	4.5	18
20	Phase selective CVD growth and photoinduced 1T $\leftrightarrow$ 1H phase transition in a WS <sub>2</sub> monolayer. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10438-10447.	2.7	17
21	Layer number dependent optical and electrical properties of CVD grown two-dimensional anisotropic WS <sub>2</sub> . <i>Surfaces and Interfaces</i> , 2021, 26, 101308.	1.5	17
22	Giant Gate-Tunability of Complex Refractive Index in Semiconducting Carbon Nanotubes. <i>ACS Photonics</i> , 2020, 7, 2896-2905.	3.2	16
23	Thermal expansion coefficient and phonon dynamics in coexisting allotropes of monolayer WS <sub>2</sub> probed by Raman scattering. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 505403.	0.7	15
24	Zwitterion-assisted transition metal dichalcogenide nanosheets for scalable and biocompatible inkjet printing. <i>Nano Research</i> , 2020, 13, 2726-2734.	5.8	15
25	Photocatalytic Water Disinfection of CVD Grown WS <sub>2</sub> Monolayer Decorated with Ag Nanoparticles. <i>ChemistrySelect</i> , 2018, 3, 7648-7655.	0.7	14
26	Design of Quad-Port Ultra-Wideband Multiple-Input-Multiple-Output Antenna with Wide Axial-Ratio Bandwidth. <i>Sensors</i> , 2020, 20, 1174.	2.1	14
27	Gram scale synthesis of monoclinic VO <sub>2</sub> microcrystals by hydrothermal and argon annealing treatment. <i>Ceramics International</i> , 2019, 45, 3554-3562.	2.3	13
28	Carrier type modulation in current annealed graphene layers. <i>Applied Physics Letters</i> , 2014, 104, 083517.	1.5	12
29	Scalable faceted voids with luminescent enhanced edges in WS <sub>2</sub> monolayers. <i>Nanoscale</i> , 2018, 10, 16321-16331.	2.8	11
30	Interplay between Thermal Stress and Interface Binding on Fracture of WS <sub>2</sub> Monolayer with Triangular Voids. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 16876-16884.	4.0	10
31	Nanosculpting of Atomically Thin 2D Materials for Site-Specific Photoluminescence Modulation. <i>Advanced Optical Materials</i> , 2018, 6, 1701284.	3.6	7
32	Thermally driven reversible photoluminescence modulation in WS <sub>2</sub> /VO <sub>2</sub> heterostructure. <i>Applied Surface Science</i> , 2019, 480, 680-688.	3.1	7
33	Multiscale Photonic Emissivity Engineering for Relativistic Lightsail Thermal Regulation. <i>Nano Letters</i> , 2022, 22, 594-601.	4.5	7
34	Selective Oxidation of WS <sub>2</sub> Defect Domain with Sub-Monolayer Thickness Leads to Multifold Enhancement in Photoluminescence. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900962.	1.9	6
35	Structural and spectroscopic characterization of pyrene derived carbon nano dots: a single-particle level analysis. <i>Nanoscale</i> , 2022, 14, 3568-3578.	2.8	6
36	Polymorphic In-Plane Heterostructures of Monolayer WS <sub>2</sub> for Light-Triggered Field-Effect Transistors. <i>ACS Applied Nano Materials</i> , 2020, 3, 3750-3759.	2.4	5

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37	In-situ study of exchange-bias in interlayer coupled Co/CoO/Co trilayer structure. Journal of Magnetism and Magnetic Materials, 2020, 513, 167186.	1.0	4
38	Efficacy of boron nitride encapsulation against plasma-processing of 2D semiconductor layers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	4
39	Interfacial Reaction and Diffusion at the One-Dimensional Interface of Two-Dimensional PtSe <sub>2</sub> . Nano Letters, 2022, 22, 4733-4740.	4.5	3
40	Temperature-dependent conduction mechanism of vertically aligned graphene nanoflakes incorporated with nitrogen in situ. Materials Research Express, 2017, 4, 075011.	0.8	0
41	Electron energy loss spectroscopy of sub-10 nm 2D MoS <sub>2</sub> crystals. Microscopy and Microanalysis, 2021, 27, 1210-1211.	0.2	0