

# Vidya Kochat

## List of Publications by Year in descending order

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24  
papers

1,514  
citations

516561

16  
h-index

642610

23  
g-index

25  
all docs

25  
docs citations

25  
times ranked

3273  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exfoliation of a non-van der Waals material from iron ore hematite. Nature Nanotechnology, 2018, 13, 602-609.	15.6	295
2	Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism. Advanced Materials, 2017, 29, 1703754.	11.1	191
3	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. Advanced Materials, 2017, 29, 1702457.	11.1	186
4	Atomically thin gallium layers from solid-melt exfoliation. Science Advances, 2018, 4, e1701373.	4.7	157
5	Fluorinated h-BN as a magnetic semiconductor. Science Advances, 2017, 3, e1700842.	4.7	121
6	Microscopic Mechanism of 1/f Noise in Graphene: Role of Energy Band Dispersion. ACS Nano, 2011, 5, 2075-2081.	7.3	102
7	Metal Immiscibility Route to Synthesis of Ultrathin Carbides, Borides, and Nitrides. Advanced Materials, 2017, 29, 1700364.	11.1	61
8	Structural Phase Transformation in Strained Monolayer MoWSe <sub>2</sub> Alloy. ACS Nano, 2018, 12, 3468-3476.	7.3	57
9	Ultrafast non-radiative dynamics of atomically thin MoSe <sub>2</sub> . Nature Communications, 2017, 8, 1745.	5.8	52
10	High contrast imaging and thickness determination of graphene with in-column secondary electron microscopy. Journal of Applied Physics, 2011, 110, .	1.1	46
11	Direct Observation of Valley Hybridization and Universal Symmetry of Graphene with Mesoscopic Conductance Fluctuations. Physical Review Letters, 2012, 109, 196601.	2.9	45
12	Magnitude and Origin of Electrical Noise at Individual Grain Boundaries in Graphene. Nano Letters, 2016, 16, 562-567.	4.5	39
13	Effect of Carrier Localization on Electrical Transport and Noise at Individual Grain Boundaries in Monolayer MoS <sub>2</sub> . Nano Letters, 2017, 17, 5452-5457.	4.5	39
14	Insights on Defect-Mediated Heterogeneous Nucleation of Graphene on Copper. Journal of Physical Chemistry C, 2015, 119, 2513-2522.	1.5	29
15	Phase Segregation Behavior of Two-Dimensional Transition Metal Dichalcogenide Binary Alloys Induced by Dissimilar Substitution. Chemistry of Materials, 2017, 29, 7431-7439.	3.2	27
16	Optical Control of Non-Equilibrium Phonon Dynamics. Nano Letters, 2019, 19, 4981-4989.	4.5	27
17	Review of strategies toward the development of alloy two-dimensional (2D) transition metal dichalcogenides. IScience, 2021, 24, 103532.	1.9	11
18	Fermi-Edge Transmission Resonance in Graphene Driven by a Single Coulomb Impurity. Physical Review Letters, 2014, 113, 026601.	2.9	9

#	ARTICLE	IF	CITATIONS
19	Origin of $1/f$ noise in graphene produced for large-scale applications in electronics. IET Circuits, Devices and Systems, 2015, 9, 52-58.	0.9	9
20	Spontaneous Time-Reversal Symmetry Breaking at Individual Grain Boundaries in Graphene. Physical Review Letters, 2021, 126, 206803.	2.9	7
21	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv.) Tj ETQq1 1 0.784314 rgBT /Over	11.1	1
22	2D Materials: Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism (Adv. Mater. 43/2017). Advanced Materials, 2017, 29, .	11.1	1
23	Anomalous Number Fluctuation Noise in Localized Transition Metal Dichalcogenide Layers: Generalization of McWhorter's Mechanism. MRS Advances, 2018, 3, 299-305.	0.5	1
24	Universal conductance fluctuations as a direct probe to valley coherence and universality class of disordered graphene. , 2013, , .		0