

# Santosh Kc

## List of Publications by Year in descending order

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49  
papers

3,583  
citations

293460

24  
h-index

252626

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all docs

50  
docs citations

50  
times ranked

8725  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced optoelectronic and elastic responses in fluorinated penta-BCN. Applied Surface Science, 2022, 593, 153239.	3.1	4
2	Giant Effects of Interlayer Interaction on Valence-Band Splitting in Transition Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 8667-8675.	1.5	2
3	Electronic structure and estimation of Curie temperature in Ca <sub>2</sub> Bi <sub>1-x</sub> Cr <sub>x</sub> Fe double perovskites. Journal of Applied Physics, 2021, 130, .	1.1	1
4	Self-Assembled Room Temperature Multiferroic BiFeO <sub>3</sub> /LiFe <sub>5</sub> O <sub>8</sub> Nanocomposites. Advanced Functional Materials, 2020, 30, 1906849.	7.8	14
5	Transport gaps in ideal zigzag-edge graphene nanoribbons with chemical edge disorder. Applied Surface Science, 2020, 512, 144714.	3.1	5
6	Predicting the Phase Stability of Multicomponent High-Entropy Compounds. Chemistry of Materials, 2020, 32, 7507-7515.	3.2	37
7	Non-conventional mechanism of ferroelectric fatigue via cation migration. Nature Communications, 2019, 10, 3064.	5.8	23
8	Designing Morphotropic Phase Composition in BiFeO <sub>3</sub> . Nano Letters, 2019, 19, 1033-1038.	4.5	24
9	First-principles study of antisite defects in perovskite stannates. Journal of Applied Physics, 2019, 126, 195701.	1.1	9
10	Optical response of BiFeO <sub>3</sub> films subjected to uniaxial strain. Physical Review Materials, 2019, 3, .	0.9	3
11	Transition Metal Dichalcogenides: Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe <sub>2</sub> (Adv. Funct. Mater. 19/2017). Advanced Functional Materials, 2017, 27, .	7.8	3
12	Computational Study of MoS <sub>2</sub> /HfO <sub>2</sub> Defective Interfaces for Nanometer-Scale Electronics. ACS Omega, 2017, 2, 2827-2834.	1.6	16
13	Symmetry driven control of optical properties in WO <sub>3</sub> films. APL Materials, 2017, 5, 066106.	2.2	9
14	Intrinsic air stability mechanisms of two-dimensional transition metal dichalcogenide surfaces: basal versus edge oxidation. 2D Materials, 2017, 4, 025050.	2.0	87
15	Antiferromagnetism in the van der Waals layered spin-1/2 semiconductor $\text{CrTe}_3$ . Physical Review B, 2017, 95, .	1.1	44
16	Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe <sub>2</sub> . Advanced Functional Materials, 2017, 27, 1603850.	7.8	84
17	Magnetic behavior and spin-lattice coupling in cleavable van der Waals layered $\text{CrCl}_3$ crystals. Physical Review Materials, 2017, 1, .	0.9	21
18	High-temperature magnetostructural transition in van der Waals-layered $\text{CrI}_3$ . Physical Review Materials, 2017, 1, .	0.9	21

#	ARTICLE	IF	CITATIONS
19	Charge Mediated Reversible Metal-Insulator Transition in Monolayer MoTe <sub>2</sub> and W <sub>2</sub> MoTe <sub>2</sub> Alloy. ACS Nano, 2016, 10, 7370-7375.	7.3	133
20	Monolayer MoS <sub>2</sub> Bandgap Modulation by Dielectric Environments and Tunable Bandgap Transistors. Scientific Reports, 2016, 6, 29184.	1.6	212
21	Organic-inorganic hybrid semiconductor thin films deposited using molecular-atomic layer deposition (MALD). Journal of Materials Chemistry C, 2016, 4, 2382-2389.	2.7	14
22	Unraveling the Origin of Instability in Ni-Rich LiNi <sub>1-x</sub> Co <sub>x</sub> MnO <sub>2</sub> (NCM) Cathode Materials. Journal of Physical Chemistry C, 2016, 120, 6383-6393.	1.5	154
23	Materials Design on the Origin of Gap States in a High- $\gamma$ /GaAs Interface. Engineering, 2015, 1, 372-377.	3.2	3
24	Phase stability of transition metal dichalcogenide by competing ligand field stabilization and charge density wave. 2D Materials, 2015, 2, 035019.	2.0	29
25	HfO <sub>2</sub> on UV <sub>3</sub> exposed transition metal dichalcogenides: interfacial reactions study. 2D Materials, 2015, 2, 014004.	2.0	98
26	Ab initio study of doping effects on LiMnO <sub>2</sub> and Li <sub>2</sub> MnO <sub>3</sub> cathode materials for Li-ion batteries. Journal of Materials Chemistry A, 2015, 3, 8489-8500.	5.2	102
27	First Principles Study of Li-Site Doping Effect on the Properties of LiMnO <sub>2</sub> and Li <sub>2</sub> MnO <sub>3</sub> Cathode Materials. ECS Transactions, 2015, 64, 21-32.	0.3	0
28	Surface oxidation energetics and kinetics on MoS <sub>2</sub> monolayer. Journal of Applied Physics, 2015, 117, .	1.1	202
29	Multivalent Li-Site Doping of Mn Oxides for Li-Ion Batteries. Journal of Physical Chemistry C, 2015, 119, 21904-21912.	1.5	33
30	Near-unity photoluminescence quantum yield in MoS <sub>2</sub> . Science, 2015, 350, 1065-1068.	6.0	993
31	In Situ TEM Characterization of Shear-Stress-Induced Interlayer Sliding in the Cross Section View of Molybdenum Disulfide. ACS Nano, 2015, 9, 1543-1551.	7.3	93
32	Electrode-Electrolyte Interface for Solid State Li-Ion Batteries: Point Defects and Mechanical Strain. Journal of the Electrochemical Society, 2014, 161, F3104-F3110.	1.3	28
33	MoS <sub>2</sub> functionalization for ultra-thin atomic layer deposited dielectrics. Applied Physics Letters, 2014, 104, .	1.5	171
34	Phase stability of Li-Mn-O oxides as cathode materials for Li-ion batteries: insights from ab initio calculations. Physical Chemistry Chemical Physics, 2014, 16, 11233-11242.	1.3	56
35	Electronic properties of InP (001)/HfO <sub>2</sub> (001) interface: Band offsets and oxygen dependence. Journal of Applied Physics, 2014, 115, .	1.1	15
36	Crystal structure and multicomponent effects in Tetrahedral Silicate Cathode Materials for Rechargeable Li-ion Batteries. Electrochimica Acta, 2014, 121, 434-442.	2.6	5

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37	Behavior of Li defects in solid electrolyte lithium thiophosphate Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> : A first principles study. Computational Materials Science, 2014, 90, 44-49.	1.4	18
38	Air Stable p-Doping of WSe <sub>2</sub> by Covalent Functionalization. ACS Nano, 2014, 8, 10808-10814.	7.3	208
39	Impact of intrinsic atomic defects on the electronic structure of MoS <sub>2</sub> monolayers. Nanotechnology, 2014, 25, 375703.	1.3	244
40	Ionic and Electronic Mobility in Multicomponent Olivine Silicate Cathode Materials for Li-ion Batteries. Journal of the Electrochemical Society, 2014, 161, A1461-A1467.	1.3	4
41	Point defects in garnet-type solid electrolyte (c-Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> ) for Li-ion batteries. Solid State Ionics, 2014, 261, 100-105.	1.3	34
42	Interface phenomena between Li anode and lithium phosphate electrolyte for Li-ion battery. Journal of Power Sources, 2013, 244, 136-142.	4.0	25
43	Interfacial bonding and electronic structure of HfO <sub>2</sub> /GaSb interfaces: A first principles study. Applied Physics Letters, 2013, 102, 022901.	1.5	18
44	Ionic Transport Properties and Structural Stability of High-Capacity Silicate Cathode Materials for Li-ion Batteries. ECS Transactions, 2013, 53, 13-23.	0.3	0
45	Study of lithium defects in lithium phosphate and in the interface with metallic Li. Materials Research Society Symposia Proceedings, 2013, 1496, 1.	0.1	0
46	In situ study of the role of substrate temperature during atomic layer deposition of HfO <sub>2</sub> on InP. Journal of Applied Physics, 2013, 114, 154105.	1.1	14
47	Indium diffusion through high-k dielectrics in high-k/InP stacks. Applied Physics Letters, 2013, 103, .	1.5	32
48	<i>In situ</i> study of e-beam Al and Hf metal deposition on native oxide InP (100). Journal of Applied Physics, 2013, 114, .	1.1	9
49	First principles study on InP (001)-(2 Å <sup>-1</sup> – 4) surface oxidation. Journal of Applied Physics, 2013, 113, 103705.	1.1	18