Santosh Kc

List of Publications by Year
in descending order

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Version: 2024-02-01

49 papers	3,583 citations	257450 24 h-index	223800 46 g-index
50 all docs	50 docs citations	50 times ranked	7470 citing authors

#	Article	IF	Citations
1	Near-unity photoluminescence quantum yield in MoS ₂. Science, 2015, 350, 1065-1068.	12.6	993
2	Impact of intrinsic atomic defects on the electronic structure of MoS₂monolayers. Nanotechnology, 2014, 25, 375703.	2.6	244
3	Magnetic behavior and spin-lattice coupling in cleavable van der Waals layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CrCl</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> crystals. Physical Review Materials, 2017, 1, .	2.4	216
4	Monolayer MoS2 Bandgap Modulation by Dielectric Environments and Tunable Bandgap Transistors. Scientific Reports, 2016, 6, 29184.	3.3	212
5	Air Stable p-Doping of WSe₂ by Covalent Functionalization. ACS Nano, 2014, 8, 10808-10814.	14.6	208
6	Surface oxidation energetics and kinetics on MoS2 monolayer. Journal of Applied Physics, 2015, 117, .	2.5	202
7	MoS2 functionalization for ultra-thin atomic layer deposited dielectrics. Applied Physics Letters, 2014, 104, .	3.3	171
8	Unraveling the Origin of Instability in Ni-Rich LiNi_{1â€“2x}Co_xMn_xO₂ (NCM) Cathode Materials. Journal of Physical Chemistry C, 2016, 120, 6383-6393.	3.1	154
9	Charge Mediated Reversible Metalâ€“Insulator Transition in Monolayer MoTe₂ and W_xMo_{1â€“x}Te₂ Alloy. ACS Nano, 2016, 10, 7370-7375.	14.6	133
10	Ab initio study of doping effects on LiMnO₂ and Li₂MnO₃ cathode materials for Li-ion batteries. Journal of Materials Chemistry A, 2015, 3, 8489-8500.	10.3	102
11	HfO ₂ on UVâ€“O ₃ exposed transition metal dichalcogenides: interfacial reactions study. 2D Materials, 2015, 2, 014004.	4.4	98
12	In Situ TEM Characterization of Shear-Stress-Induced Interlayer Sliding in the Cross Section View of Molybdenum Disulfide. ACS Nano, 2015, 9, 1543-1551.	14.6	93
13	Intrinsic air stability mechanisms of two-dimensional transition metal dichalcogenide surfaces: basal versus edge oxidation. 2D Materials, 2017, 4, 025050.	4.4	87
14	Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe₂. Advanced Functional Materials, 2017, 27, 1603850.	14.9	84
15	Phase stability of Liâ€“Mnâ€“O oxides as cathode materials for Li-ion batteries: insights from ab initio calculations. Physical Chemistry Chemical Physics, 2014, 16, 11233-11242.	2.8	56
16	Antiferromagnetism in the van der Waals layered spin-lozenge semiconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="bold">CrTe</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2017, 95, .	3.2	44
17	Predicting the Phase Stability of Multicomponent High-Entropy Compounds. Chemistry of Materials, 2020, 32, 7507-7515.	6.7	37
18	High-temperature magnetostructural transition in van der Waals-layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub> Physical Review Materials, 2017, 1, .	2.4	37

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19	Point defects in garnet-type solid electrolyte (c-Li7La3Zr2O12) for Li-ion batteries. Solid State Ionics, 2014, 261, 100-105.	2.7	34
20	Multivalent Li-Site Doping of Mn Oxides for Li-Ion Batteries. Journal of Physical Chemistry C, 2015, 119, 21904-21912.	3.1	33
21	Indium diffusion through high-k dielectrics in high-k/InP stacks. Applied Physics Letters, 2013, 103, .	3.3	32
22	Phase stability of transition metal dichalcogenide by competing ligand field stabilization and charge density wave. 2D Materials, 2015, 2, 035019.	4.4	29
23	Electrode-Electrolyte Interface for Solid State Li-Ion Batteries: Point Defects and Mechanical Strain. Journal of the Electrochemical Society, 2014, 161, F3104-F3110.	2.9	28
24	Interface phenomena between Li anode and lithium phosphate electrolyte for Li-ion battery. Journal of Power Sources, 2013, 244, 136-142.	7.8	25
25	Designing Morphotropic Phase Composition in BiFeO₃. Nano Letters, 2019, 19, 1033-1038.	9.1	24
26	Non-conventional mechanism of ferroelectric fatigue via cation migration. Nature Communications, 2019, 10, 3064.	12.8	23
27	Interfacial bonding and electronic structure of HfO2/GaSb interfaces: A first principles study. Applied Physics Letters, 2013, 102, 022901.	3.3	18
28	First principles study on InP (001)-(2 Ã— 4) surface oxidation. Journal of Applied Physics, 2013, 113, 103705.	2.5	18
29	Behavior of Li defects in solid electrolyte lithium thiophosphate Li7P3S11: A first principles study. Computational Materials Science, 2014, 90, 44-49.	3.0	18
30	Computational Study of MoS₂/HfO₂ Defective Interfaces for Nanometer-Scale Electronics. ACS Omega, 2017, 2, 2827-2834.	3.5	16
31	Electronic properties of InP (001)/HfO2 (001) interface: Band offsets and oxygen dependence. Journal of Applied Physics, 2014, 115, .	2.5	15
32	In situ study of the role of substrate temperature during atomic layer deposition of HfO2 on InP. Journal of Applied Physics, 2013, 114, 154105.	2.5	14
33	Organicâ€“inorganic hybrid semiconductor thin films deposited using molecular-atomic layer deposition (MALD). Journal of Materials Chemistry C, 2016, 4, 2382-2389.	5.5	14
34	Selfâ€Assembled Room Temperature Multiferroic BiFeO₃â€LiFe₅O₈ Nanocomposites. Advanced Functional Materials, 2020, 30, 1906849.	14.9	14
35	In situ study of e-beam Al and Hf metal deposition on native oxide InP (100). Journal of Applied Physics, 2013, 114, .	2.5	9
36	Symmetry driven control of optical properties in WO₃ films. APL Materials, 2017, 5, 066106.	5.1	9

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37	First-principles study of antisite defects in perovskite stannates. Journal of Applied Physics, 2019, 126, 195701.	2.5	9
38	Crystal structure and multicomponent effects in Tetrahedral Silicate Cathode Materials for Rechargeable Li-ion Batteries. Electrochimica Acta, 2014, 121, 434-442.	5.2	5
39	Transport gaps in ideal zigzag-edge graphene nanoribbons with chemical edge disorder. Applied Surface Science, 2020, 512, 144714.	6.1	5
40	Ionic and Electronic Mobility in Multicomponent Olivine Silicate Cathode Materials for Li-ion Batteries. Journal of the Electrochemical Society, 2014, 161, A1461-A1467.	2.9	4
41	Enhanced optoelectronic and elastic responses in fluorinated penta-BCN. Applied Surface Science, 2022, 593, 153239.	6.1	4
42	Materials Design on the Origin of Gap States in a High-Î¹/GaAs Interface. Engineering, 2015, 1, 372-377.	6.7	3
43	Transition Metal Dichalcogenides: Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe₂ (Adv. Funct. Mater. 19/2017). Advanced Functional Materials, 2017, 27, .	14.9	3
44	Optical response of BiFeO3 films subjected to uniaxial strain. Physical Review Materials, 2019, 3, .	2.4	3
45	Giant Effects of Interlayer Interaction on Valence-Band Splitting in Transition Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 8667-8675.	3.1	2
46	Electronic structure and estimation of Curie temperature in Ca2BIrO6 (Bâ€‰=â€‰Cr, Fe) double perovskites. Journal of Applied Physics, 2021, 130, .	2.5	1
47	Ionic Transport Properties and Structural Stability of High-Capacity Silicate Cathode Materials for Li-Ion Batteries. ECS Transactions, 2013, 53, 13-23.	0.5	0
48	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
49	First Principles Study of Li-Site Doping Effect on the Properties of LiMnO2 and Li2MnO3 Cathode Materials. ECS Transactions, 2015, 64, 21-32.	0.5	0