

Sankalp Kota

List of Publications by Year in descending order

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40
papers

8,300
citations

172457

29
h-index

276875

41
g-index

41
all docs

41
docs citations

41
times ranked

7152
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-high-rate pseudocapacitive energy storage in two-dimensional transition metal carbides. <i>Nature Energy</i> , 2017, 2, .	39.5	1,626
2	Synthesis and Characterization of 2D Molybdenum Carbide (MXene). <i>Advanced Functional Materials</i> , 2016, 26, 3118-3127.	14.9	945
3	Synthesis of two-dimensional titanium nitride Ti_4N_3 (MXene). <i>Nanoscale</i> , 2016, 8, 11385-11391.	5.6	878
4	Fabrication of Ti_3C_2Tx MXene Transparent Thin Films with Tunable Optoelectronic Properties. <i>Advanced Electronic Materials</i> , 2016, 2, 1600050.	5.1	587
5	Two-dimensional $Mo_{1.33}C$ MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. <i>Nature Communications</i> , 2017, 8, 14949.	12.8	525
6	Ion-Exchange and Cation Solvation Reactions in Ti_3C_2 MXene. <i>Chemistry of Materials</i> , 2016, 28, 3507-3514.	6.7	499
7	On the Chemical Diversity of the MAX Phases. <i>Trends in Chemistry</i> , 2019, 1, 210-223.	8.5	490
8	Porous Two-Dimensional Transition Metal Carbide (MXene) Flakes for High-Performance Li -ion Storage. <i>ChemElectroChem</i> , 2016, 3, 689-693.	3.4	452
9	Two-Dimensional Titanium Carbide MXene As a Cathode Material for Hybrid Magnesium/Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4296-4300.	8.0	188
10	Alkylammonium Cation Intercalation into Ti_3C_2 (MXene): Effects on Properties and Ion-Exchange Capacity Estimation. <i>Chemistry of Materials</i> , 2017, 29, 1099-1106.	6.7	188
11	Lithium-ion capacitors with 2D Nb_2CT_x (MXene) \AA carbon nanotube electrodes. <i>Journal of Power Sources</i> , 2016, 326, 686-694.	7.8	175
12	Tailoring Structure, Composition, and Energy Storage Properties of MXenes from Selective Etching of In-Plane, Chemically Ordered MAX Phases. <i>Small</i> , 2018, 14, e1703676.	10.0	174
13	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: $MoAlB$. <i>Scientific Reports</i> , 2016, 6, 26475.	3.3	141
14	Alkali-induced crumpling of Ti_3C_2Tx (MXene) to form 3D porous networks for sodium ion storage. <i>Chemical Communications</i> , 2018, 54, 4533-4536.	4.1	135
15	A progress report on the MAB phases: atomically laminated, ternary transition metal borides. <i>International Materials Reviews</i> , 2020, 65, 226-255.	19.3	135
16	Conductive transparent V_2CT_x (MXene) films. <i>FlatChem</i> , 2018, 8, 25-30.	5.6	123
17	2D MXene-containing polymer electrolytes for all-solid-state lithium metal batteries. <i>Nanoscale Advances</i> , 2019, 1, 395-402.	4.6	117
18	Elastic properties, thermal stability, and thermodynamic parameters of $MoAlB$. <i>Physical Review B</i> , 2017, 95, .	3.2	95

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19	Atomic structure and lattice defects in nanolaminated ternary transition metal borides. <i>Materials Research Letters</i> , 2017, 5, 235-241.	8.7	86
20	Structure and crystallization behavior of poly(ethylene oxide)/Ti ₃ C ₂ T _x MXene nanocomposites. <i>Polymer</i> , 2016, 102, 119-126.	3.8	77
21	Pressure-induced shear and interlayer expansion in Ti ₃ C ₂ MXene in the presence of water. <i>Science Advances</i> , 2018, 4, eaao6850.	10.3	75
22	Isothermal and Cyclic Oxidation of MoAlB in Air from 1100°C to 1400°C. <i>Journal of the Electrochemical Society</i> , 2017, 164, C930-C938.	2.9	67
23	Electrophoretic Deposition of Two-Dimensional Titanium Carbide (MXene) Thick Films. <i>Journal of the Electrochemical Society</i> , 2017, 164, D573-D580.	2.9	63
24	X-ray photoelectron spectroscopy of the MAB phases, MoAlB, Mn ₂ AlB ₂ (M = Cr, Fe), Cr ₃ AlB ₄ and their binary monoborides. <i>Journal of the European Ceramic Society</i> , 2020, 40, 305-314.	5.7	51
25	Synthesis and characterization of the atomic laminate Mn ₂ AlB ₂ . <i>Journal of the European Ceramic Society</i> , 2018, 38, 5333-5340.	5.7	49
26	Magnetic properties of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and CrB powders. <i>Journal of Alloys and Compounds</i> , 2018, 767, 474-482.	5.5	48
27	Friction and wear properties of MoAlB against Al ₂ O ₃ and 100Cr6 steel counterparts. <i>Journal of the European Ceramic Society</i> , 2019, 39, 868-877.	5.7	48
28	Anisotropic thermal expansions of select layered ternary transition metal borides: MoAlB, Cr ₂ AlB ₂ , Mn ₂ AlB ₂ , and Fe ₂ AlB ₂ . <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	39
29	First-order Raman scattering in three-layered Mo-based ternaries: MoAlB, Mo ₂ Ga ₂ C and Mo ₂ GaC. <i>Journal of Raman Spectroscopy</i> , 2017, 48, 631-638.	2.5	37
30	Compressive deformation of MoAlB up to 1100°C. <i>Journal of Alloys and Compounds</i> , 2019, 774, 1216-1222.	5.5	26
31	Magnetic and magnetocaloric properties of Fe ₂ AlB ₂ synthesized by single-step reactive hot pressing. <i>Scripta Materialia</i> , 2020, 188, 244-248.	5.2	26
32	On the Rapid Synthesis of the Ternary Mo ₂ GaC. <i>Journal of the American Ceramic Society</i> , 2015, 98, 2713-2715.	3.8	23
33	Formation mechanisms of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and Fe ₂ AlB ₂ MAB phases. <i>Materials Research Letters</i> , 2021, 9, 323-328.	8.7	23
34	Magnetic ordering in the nano-laminar ternary Mn ₂ AlB ₂ using neutron and X-ray diffraction. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 471, 468-474.	2.3	20
35	Effect of texturing on thermal, electric and elastic properties of MoAlB, Fe ₂ AlB ₂ , and Mn ₂ AlB ₂ . <i>Journal of the European Ceramic Society</i> , 2022, 42, 3183-3191.	5.7	18
36	Synthesis, characterization and first principle modelling of the MAB phase solid solutions: (Mn _{1-x} Cr _x) ₂ AlB ₂ and (Mn _{1-x} Cr _x) ₃ AlB ₄ . <i>Materials Research Letters</i> , 2021, 9, 112-118.	8.7	17

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37	Thermal stability of the nanolayered Fe ₂ AlB ₂ in nitrogen and argon atmospheres. Journal of the American Ceramic Society, 2021, 104, 733-739.	3.8	10
38	Synthesis, characterization, properties, first principles calculations, and X-ray photoelectron spectroscopy of bulk Mn ₅ SiB ₂ and Fe ₅ SiB ₂ ternary borides. Journal of Alloys and Compounds, 2021, 888, 161377.	5.5	8
39	Magnetic properties of $B_{2-x}Mn_x$. Physical Review Materials, 2020, 4, .	2.4	8
40	Friction and wear characteristics of the nanolaminated ternary transition metal boride: Mn ₂ AlB ₂ . Wear, 2022, 492-493, 204232.	3.1	5