

Vladan Stevanović

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

4,859
citations

172457

29
h-index

197818

49
g-index

51
all docs

51
docs citations

51
times ranked

7563
citing authors

#	ARTICLE	IF	CITATIONS
1	Identifying defect-tolerant semiconductors with high minority-carrier lifetimes: beyond hybrid lead halide perovskites. <i>MRS Communications</i> , 2015, 5, 265-275.	1.8	662
2	Defect Tolerance in Methylammonium Lead Triiodide Perovskite. <i>ACS Energy Letters</i> , 2016, 1, 360-366.	17.4	500
3	Correcting density functional theory for accurate predictions of compound enthalpies of formation: Fitted elemental-phase reference energies. <i>Physical Review B</i> , 2012, 85, .	3.2	454
4	Hybrid Organic-Inorganic Perovskites (HOIPs): Opportunities and Challenges. <i>Advanced Materials</i> , 2015, 27, 5102-5112.	21.0	372
5	New frontiers for the materials genome initiative. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	312
6	Defect Tolerant Semiconductors for Solar Energy Conversion. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1117-1125.	4.6	304
7	Searching for "Defect-Tolerant" Photovoltaic Materials: Combined Theoretical and Experimental Screening. <i>Chemistry of Materials</i> , 2017, 29, 4667-4674.	6.7	275
8	Origin of Pronounced Nonlinear Band Gap Behavior in Lead-Tin Hybrid Perovskite Alloys. <i>Chemistry of Materials</i> , 2018, 30, 3920-3928.	6.7	166
9	Triple ionic-electronic conducting oxides for next-generation electrochemical devices. <i>Nature Materials</i> , 2021, 20, 301-313.	27.5	160
10	Physical descriptor for the Gibbs energy of inorganic crystalline solids and temperature-dependent materials chemistry. <i>Nature Communications</i> , 2018, 9, 4168.	12.8	152
11	A computational framework for automation of point defect calculations. <i>Computational Materials Science</i> , 2017, 130, 1-9.	3.0	131
12	Control of the Electrical Properties in Spinel Oxides by Manipulating the Cation Disorder. <i>Advanced Functional Materials</i> , 2014, 24, 610-618.	14.9	109
13	Convergence of density and hybrid functional defect calculations for compound semiconductors. <i>Physical Review B</i> , 2013, 88, .	3.2	94
14	Capturing Anharmonicity in a Lattice Thermal Conductivity Model for High-Throughput Predictions. <i>Chemistry of Materials</i> , 2017, 29, 2494-2501.	6.7	88
15	SnO as a potential oxide thermoelectric candidate. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8854-8861.	5.5	72
16	Universal Electrostatic Origin of Cation Ordering in A_2BO_4 Spinel Oxides. <i>Journal of the American Chemical Society</i> , 2011, 133, 11649-11654.	18.7	71
17	Thermoelectric Performance and Defect Chemistry in n-Type $Zn_{1-x}K_xGaSb_4$. <i>Chemistry of Materials</i> , 2017, 29, 4523-4534.	6.7	59
18	Enhanced Piezoelectric Response of AlN via CrN Alloying. <i>Physical Review Applied</i> , 2018, 9, .	3.8	57

#	ARTICLE	IF	CITATIONS
19	Non-equilibrium deposition of phase pure Cu ₂ O thin films at reduced growth temperature. <i>APL Materials</i> , 2014, 2, .	5.1	55
20	Computational identification of promising thermoelectric materials among known quasi-2D binary compounds. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11110-11116. <i>Raman spectroscopy and x-ray diffraction of</i>	10.3	55
21	CaC_3O at lower mantle pressures. <i>Physical Review B</i> , 2017, 96, .	3.2	54
22	Semiconducting properties of spinel tin nitride and other IV ₃ N ₄ polymorphs. <i>Journal of Materials Chemistry C</i> , 2015, 3, 1389-1396.	5.5	49
23	Tuning the piezoelectric and mechanical properties of the AlN system via alloying with YN and BN. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	49
24	Devil is in the Defects: Electronic Conductivity in Solid Electrolytes. <i>Chemistry of Materials</i> , 2021, 33, 7484-7498.	6.7	49
25	Simple Point-Ion Electrostatic Model Explains the Cation Distribution in Spinel Oxides. <i>Physical Review Letters</i> , 2010, 105, 075501.	7.8	48
26	The importance of phase equilibrium for doping efficiency: iodine doped PbTe. <i>Materials Horizons</i> , 2019, 6, 1444-1453.	12.2	42
27	Sampling Polymorphs of Ionic Solids using Random Superlattices. <i>Physical Review Letters</i> , 2016, 116, 075503.	7.8	39
28	Structural and Chemical Features Giving Rise to Defect Tolerance of Binary Semiconductors. <i>Chemistry of Materials</i> , 2018, 30, 5583-5592.	6.7	36
29	Synthesis of a mixed-valent tin nitride and considerations of its possible crystal structures. <i>Journal of Chemical Physics</i> , 2016, 144, 144201.	3.0	29
30	A simple chemical guide for finding novel n-type dopable Zintl pnictide thermoelectric materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19385-19395.	10.3	29
31	Thermoelectricity in transition metal compounds: the role of spin disorder. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31777-31786.	2.8	27
32	Large insulating gap in topological insulators induced by negative spin-orbit splitting. <i>Physical Review B</i> , 2012, 86, .	3.2	26
33	Polycrystalline ZrTe_5 Parametrized as a Narrow-Band-Gap Semiconductor for Thermoelectric Performance. <i>Physical Review Applied</i> , 2018, 9, .	3.8	26
34	Experimental and computational phase boundary mapping of $\text{Co}_4\text{Sn}_6\text{Te}_6$. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24175-24185.	10.3	26
35	Matching crystal structures atom-to-atom. <i>Journal of Chemical Physics</i> , 2020, 152, 074106.	3.0	16
36	Predicting energy and stability of known and hypothetical crystals using graph neural network. <i>Patterns</i> , 2021, 2, 100361.	5.9	16

#	ARTICLE	IF	CITATIONS
37	Metastable materials discovery in the age of large-scale computation. Applied Physics Reviews, 2021, 8, .	11.3	16
38	Metastable rocksalt ZnO is p -type dopable. Physical Review Materials, 2018, 2, .	2.4	15
39	Polymorphism in elemental silicon: Probabilistic interpretation of the realizability of metastable structures. Physical Review B, 2017, 96, .	3.2	14
40	The glassy solid as a statistical ensemble of crystalline microstates. Npj Computational Materials, 2020, 6, .	8.7	14
41	Computational Fermi level engineering and doping-type conversion of Mg:Ga ₂ O ₃ via three-step synthesis process. Journal of Applied Physics, 2021, 129, .	2.5	14
42	Role of disorder in the synthesis of metastable zinc zirconium nitrides. Physical Review Materials, 2022, 6, .	2.4	14
43	Computationally Guided Discovery of Axis-Dependent Conduction Polarity in NaSnAs Crystals. Chemistry of Materials, 2021, 33, 946-951.	6.7	13
44	Predicting kinetics of polymorphic transformations from structure mapping and coordination analysis. Physical Review Materials, 2018, 2, .	2.4	13
45	Large Area Atomically Flat Surfaces via Exfoliation of Bulk Bi ₂ Se ₃ Single Crystals. Chemistry of Materials, 2017, 29, 8472-8477.	6.7	8
46	Minimization of Atomic Displacements as a Guiding Principle of the Martensitic Phase Transformation. Physical Review Letters, 2020, 125, 125502.	7.8	8
47	Predicting Oxygen Off-Stoichiometry and Hydrogen Incorporation in Complex Perovskite Oxides. Chemistry of Materials, 2022, 34, 510-518.	6.7	7
48	Discovery of a ternary pseudobrookite phase in the earth-abundant Ti-Zn-O system. Dalton Transactions, 2016, 45, 1572-1581.	3.3	6
49	Theoretical Insights for Improving the Schottky-Barrier Height at the Ga ₂ O ₃ /Si Interface. Physical Review Applied, 2021, 16, .	0.8	0
50	Energy conversion properties of ZnSiP ₂ , a lattice-matched material for silicon-based tandem photovoltaics. , 2016, , .		2