

Eric Bousquet

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

5,763
citations

109137

35
h-index

76769

74
g-index

77
all docs

77
docs citations

77
times ranked

6781
citing authors

#	ARTICLE	IF	CITATIONS
1	The PseudoDojo: Training and grading a 85 element optimized norm-conserving pseudopotential table. Computer Physics Communications, 2018, 226, 39-54.	3.0	1,001
2	Improper ferroelectricity in perovskite oxide artificial superlattices. Nature, 2008, 452, 732-736.	13.7	791
3	Recent developments in the ABINIT software package. Computer Physics Communications, 2016, 205, 106-131.	3.0	662
4	The Abinitproject: Impact, environment and recent developments. Computer Physics Communications, 2020, 248, 107042.	3.0	369
5	Engineering Multiferroism in CaMnO_3 . Physical Review Letters, 2009, 102, 117602.	2.9	183
6	PyProcar: A Python library for electronic structure pre/post-processing. Computer Physics Communications, 2020, 251, 107080.	3.0	180
7	ABINIT: Overview and focus on selected capabilities. Journal of Chemical Physics, 2020, 152, 124102.	1.2	179
8	Strain-Induced Ferroelectricity in Simple Rocksalt Binary Oxides. Physical Review Letters, 2010, 104, 037601.	2.9	114
9	Finite-size effects in BaTiO ₃ nanowires. Applied Physics Letters, 2006, 88, 112906.	1.5	112
10	Ultrafast control of magnetic interactions via light-driven phonons. Nature Materials, 2021, 20, 607-611.	13.3	112
11	Monopole-based formalism for the diagonal magnetoelectric response. Physical Review B, 2013, 88, .	1.1	93
12	TBJ: A python package for computing magnetic interaction parameters. Computer Physics Communications, 2021, 264, 107938.	3.0	92
13	Non-collinear magnetism in multiferroic perovskites. Journal of Physics Condensed Matter, 2016, 28, 123001.	0.7	89
14	Noncollinear magnetism and single-ion anisotropy in multiferroic perovskites. Physical Review B, 2012, 86, .	1.1	88
15	Large elasto-optic effect and reversible electrochromism in multiferroic BiFeO ₃ . Nature Communications, 2016, 7, 10718.	5.8	88
16	Ferromagnetism induced by entangled charge and orbital orderings in ferroelectric titanate perovskites. Nature Communications, 2015, 6, 6677.	5.8	85
17	Strong coupling of Jahn-Teller distortion to oxygen-octahedron rotation and functional properties in epitaxially strained orthorhombic LaMnO ₃ . Physical Review B, 2013, 88, .	1.1	82
18	Tuning the Electronic Structure of LaNiO ₃ through Alloying with Strontium to Enhance Oxygen Evolution Activity. Advanced Science, 2019, 6, 1901073.	5.6	76

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19	Direct evidence for ferroelectric polar distortion in ultrathin lead titanate perovskite films. Physical Review B, 2006, 73, .	1.1	75
20	Coupling and electrical control of structural, orbital and magnetic orders in perovskites. Scientific Reports, 2015, 5, 15364.	1.6	73
21	LiMSO ₄ F (M = Fe, Co and Ni): promising new positive electrode materials through the DFT microscope. Physical Chemistry Chemical Physics, 2010, 12, 15512.	1.3	65
22	Geometric ferroelectricity in fluoroperovskites. Physical Review B, 2014, 89, .	1.1	61
23	Induced Magnetoelectric Response in $Pn\bar{m}2_1$ Perovskites. Physical Review Letters, 2011, 107, 197603.		58
24	Incipient ferroelectricity in 2.3% tensile-strained CaMnO ₃ films. Physical Review B, 2012, 85, .	1.1	59
25	Rationalizing and engineering Rashba spin-splitting in ferroelectric oxides. Npj Quantum Materials, 2019, 4, .	1.8	59
26	Dependence in the J dependence in the U of noncollinear magnets. Physical Review B, 2010, 82, .	1.1	57
27	First-principles study of structural and vibrational properties of SrZrO ₃ . Physical Review B, 2012, 85, .	1.1	57
28	Unexpectedly Large Electronic Contribution to Linear Magnetoelectricity. Physical Review Letters, 2011, 106, 107202.	2.9	56
29	Linear Magnetoelectric Effect by Orbital Magnetism. Physical Review Letters, 2012, 109, 197203.	2.9	52
30	First-principles study of barium titanate under hydrostatic pressure. Physical Review B, 2006, 74, .	1.1	51
31	Phenomenological thermodynamic potential for CaTiO ₃ single crystals. Physical Review B, 2012, 85, .	1.1	46
32	First-principles reinvestigation of bulk WO_3 . Physical Review B, 2016, 94, .		45
33	First-principles study of the ferroelectric Aurivillius phase Bi_2WO_6 . Physical Review B, 2012, 86, .	1.1	43
34	Proper Ferroelectricity in the Dionâ€“Jacobson Material CsBi ₂ Ti ₂ NbO ₁₀ : Experiment and Theory. Chemistry of Materials, 2015, 27, 8298-8309.	3.2	36
35	Strain-Engineered Multiferroicity in $Pn\bar{m}2_1$ Perovskites. Physical Review Letters, 2016, 116, 117202.	2.9	36
36	Unveiling the Room-Temperature Magnetoelectricity of Troilite FeS. Physical Review Letters, 2016, 116, 227601.	2.9	31

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37	New developments in artificially layered ferroelectric oxide superlattices. MRS Bulletin, 2013, 38, 1048-1055.	1.7	27
38	First-principles study of competing ferroelectric and antiferroelectric instabilities in BaTiO_3 . Physical Review B, 2010, 82, .	1.1	24
39	Making EuO multiferroic by epitaxial strain engineering. Communications Materials, 2020, 1, .	2.9	21
40	Room temperature ferroelectricity in fluoroperovskite thin films. Scientific Reports, 2017, 7, 7182.	1.6	19
41	Spin texture induced by oxygen vacancies in strontium perovskite (001) surfaces: A theoretical comparison between SrTiO_3 and SrHfO_3 . Physical Review B, 2021, 103, .	1.8	18
42	Direct Magnetization-Polarization Coupling in BaCuF_4 . Physical Review Letters, 2018, 121, 117601.	2.9	18
43	First-principles study of vibrational and noncollinear magnetic properties of the perovskite to postperovskite pressure transition of NaMnF_3 . Physical Review B, 2014, 90, .	1.1	17
44	First-principles study of the dielectric and dynamical properties of orthorhombic CaMnO_3 . Journal of Physics Condensed Matter, 2008, 20, 255229.	0.7	16
45	Raman spectra of fine-grained materials from first principles. Npj Computational Materials, 2020, 6, .	3.5	16
46	NdBaScO_4 : aristotype of a new family of geometric ferroelectrics?. Chemical Communications, 2016, 52, 10980-10983.	2.2	15
47	First-principles characterization of single-electron polaron in WO_3 . Physical Review Research, 2020, 2, .	1.8	15
48	Tuning between Proper and Hybrid-Improper Mechanisms for Polar Behavior in $\text{CsLn}_2\text{Ti}_2\text{NbO}_{10}$ Dion-Jacobson Phases. Chemistry of Materials, 2020, 32, 8700-8712.	3.2	14
49	Ultrafast strain engineering and coherent structural dynamics from resonantly driven optical phonons in LaAlO_3 . Npj Quantum Materials, 2020, 5, .	1.8	13
50	Novel magneto-electric multiferroics from first-principles calculations. Comptes Rendus Physique, 2015, 16, 153-167.	0.3	12
51	Pressure-induced insulator-metal transition in EuMnO_3 . Journal of Physics Condensed Matter, 2017, 29, 305801.	0.7	11
52	Magnetic phase diagram of rare-earth orthorhombic perovskite oxides. Physical Review B, 2021, 104, .	1.1	11
53	Firefly Algorithm Applied to Noncollinear Magnetic Phase Materials Prediction. Journal of Chemical Theory and Computation, 2018, 14, 4455-4466.	2.3	9
54	Giant photoinduced lattice distortion in oxygen vacancy ordered SrCoO_{1-x} thin films. Physical Review B, 2019, 100, .	1.1	9

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55	Ferroelectricity and multiferroicity in anti-“Ruddlesden”Popper structures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9
56	Engineering of Ferroic Orders in Thin Films by Anionic Substitution. Advanced Functional Materials, 2022, 32, 2107135.	7.8	9
57	First-principles study of strain-induced Jahn-Teller distortions in BaFeO ₃ . Journal of Physics Condensed Matter, 2018, 30, 255701.	0.7	8
58	Density functional perturbation theory within noncollinear magnetism. Physical Review B, 2019, 99, .	1.1	8
59	Bi ₂ W ₂ O ₉ : A potentially antiferroelectric Aurivillius phase. Physical Review B, 2020, 101, .	1.1	8
60	New Insight into the Concept of Ferroelectric Correlation Volume. Journal of Computational and Theoretical Nanoscience, 2008, 5, 517-520.	0.4	8
61	Correlation between optical constants and crystal chemical parameters of ZrW ₂ O ₈ . Journal of Solid State Chemistry, 2009, 182, 2762-2768.	1.4	7
62	Atomic-scale measurement of polar entropy. Physical Review B, 2019, 100, .	1.1	7
63	Optimized Methodology for the Calculation of Electrostriction from First-Principles. Small, 2021, 17, e2103419.	5.2	7
64	First-principles study of lattice dynamical properties of the room-temperature and ground-state phases of. Physical Review B, 2022, 105, .	1.1	7
65	Atomic structure of Sr/Si(O ⁻¹)(1 ⁻²) surfaces prepared by Pulsed laser deposition. Applied Surface Science, 2019, 471, 664-669.	3.1	6
66	Origin of nonlinear magnetoelectric response in rare-earth orthoferrite perovskite oxides. Physical Review B, 2022, 105, .	1.1	6
67	Noncollinear magnetism in post-perovskites from first principles: Comparison between CaRhO ₃ and NaNiF ₃ . Physica Status Solidi (B): Basic Research, 2015, 252, 689-694.	0.7	5
68	Magneto-electric multiferroics: designing new materials from first-principles calculations. Physical Sciences Reviews, 2020, 5, .	0.8	5
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73	Non-collinear magnetism & multiferroicity: the perovskite case. ChemistrySelect, 2023, 8, 479-508.	0.7	3
74	Tuning octahedral tilts and the polar nature of A-site deficient perovskites. Chemical Communications, 2019, 55, 2609-2612.	2.2	1