Eric Bousquet

List of Publications by Citations

73 papers	3,816 citations	32 h-index	61 g-index
77 ext. papers	4,795 ext. citations	5.9 avg, IF	5.51 L-index

#	Paper	IF	Citations
73	Improper ferroelectricity in perovskite oxide artificial superlattices. *Nature*, **2008**, 452, 732-6	50.4	674
72	Recent developments in the ABINIT software package. *Computer Physics Communications*, **2016**, 205, 106-131	4.2	494
71	The PseudoDojo: Training and grading a 85 element optimized norm-conserving pseudopotential table. *Computer Physics Communications*, **2018**, 226, 39-54	4.2	473
70	Engineering multiferroism in CaMnO3. *Physical Review Letters*, **2009**, 102, 117602	7.4	167
69	The Abinitproject: Impact, environment and recent developments. *Computer Physics Communications*, **2020**, 248, 107042	4.2	143
68	Strain-induced ferroelectricity in simple rocksalt binary oxides. *Physical Review Letters*, **2010**, 104, 037601	7.4	104
67	Finite-size effects in BaTiO3 nanowires. *Applied Physics Letters*, **2006**, 88, 112906	3.4	103
66	Noncollinear magnetism and single-ion anisotropy in multiferroic perovskites. *Physical Review B*, **2012**, 86,	3.3	74
65	Large elasto-optic effect and reversible electrochromism in multiferroic BiFeO3. *Nature Communications*, **2016**, 7, 10718	17.4	72
64	Ferromagnetism induced by entangled charge and orbital orderings in ferroelectric titanate perovskites. *Nature Communications*, **2015**, 6, 6677	17.4	70
63	Direct evidence for ferroelectric polar distortion in ultrathin lead titanate perovskite films. *Physical Review B*, **2006**, 73,	3.3	69
62	Strong coupling of Jahn-Teller distortion to oxygen-octahedron rotation and functional properties in epitaxially strained orthorhombic LaMnO3. *Physical Review B*, **2013**, 88,	3.3	67
61	PyProcar: A Python library for electronic structure pre/post-processing. *Computer Physics Communications*, **2020**, 251, 107080	4.2	66
60	Coupling and electrical control of structural, orbital and magnetic orders in perovskites. *Scientific Reports*, **2015**, 5, 15364	4.9	64
59	Monopole-based formalism for the diagonal magnetoelectric response. *Physical Review B*, **2013**, 88,	3.3	61
58	LiMSO(4)F (M = Fe, Co and Ni): promising new positive electrode materials through the DFT microscope. *Physical Chemistry Chemical Physics*, **2010**, 12, 15512-22	3.6	59
57	Non-collinear magnetism in multiferroic perovskites. *Journal of Physics Condensed Matter*, **2016**, 28, 123001	2.1	53

56	Induced magnetoelectric response in Pnma perovskites. *Physical Review Letters*, **2011**, 107, 197603	7.4	53
55	ABINIT: Overview and focus on selected capabilities. *Journal of Chemical Physics*, **2020**, 152, 124102	3.9	52
54	Incipient ferroelectricity in 2.3% tensile-strained CaMnO3 films. *Physical Review B*, **2012**, 85,	3.3	51
53	J dependence in the LSDA+U treatment of noncollinear magnets. *Physical Review B*, **2010**, 82,	3.3	51
52	Geometric ferroelectricity in fluoroperovskites. *Physical Review B*, **2014**, 89,	3.3	48
51	First-principles study of structural and vibrational properties of SrZrO3. *Physical Review B*, **2012**, 85,	3.3	47
50	Unexpectedly large electronic contribution to linear magnetoelectricity. *Physical Review Letters*, **2011**, 106, 107202	7.4	46
49	Linear magnetoelectric effect by orbital magnetism. *Physical Review Letters*, **2012**, 109, 197203	7.4	44
48	First-principles study of barium titanate under hydrostatic pressure. *Physical Review B*, **2006**, 74,	3.3	43
47	Tuning the Electronic Structure of LaNiO through Alloying with Strontium to Enhance Oxygen Evolution Activity. *Advanced Science*, **2019**, 6, 1901073	13.6	41
46	Phenomenological thermodynamic potential for CaTiO3 single crystals. *Physical Review B*, **2012**, 85,	3.3	40
45	First-principles reinvestigation of bulk WO3. *Physical Review B*, **2016**, 94,	3.3	39
44	Rationalizing and engineering Rashba spin-splitting in ferroelectric oxides. *Npj Quantum Materials*, **2019**, 4,	5	36
43	Ultrafast control of magnetic interactions via light-driven phonons. *Nature Materials*, **2021**, 20, 607-611	27	35
42	First-principles study of the ferroelectric Aurivillius phase Bi2WO6. *Physical Review B*, **2012**, 86,	3.3	33
41	Strain-Engineered Multiferroicity in Pnma NaMnF_{3} Fluoroperovskite. *Physical Review Letters*, **2016**, 116, 117202	7.4	29
40	New developments in artificially layered ferroelectric oxide superlattices. *MRS Bulletin*, **2013**, 38, 1048-1055	3.5	27
39	Proper Ferroelectricity in the Dion–Jacobson Material CsBi2Ti2NbO10: Experiment and Theory. *Chemistry of Materials*, **2015**, 27, 8298-8309	9.6	23

38	First-principles study of competing ferroelectric and antiferroelectric instabilities in BaTiO3/BaO superlattices. *Physical Review B*, **2010**, 82,	3.3	20
37	Unveiling the Room-Temperature Magnetoelectricity of Troilite FeS. *Physical Review Letters*, **2016**, 116, 227601	7.4	18
36	Spin texture induced by oxygen vacancies in strontium perovskite (001) surfaces: A theoretical comparison between SrTiO3 and SrHfO3. *Physical Review B*, **2016**, 93,	3.3	17
35	Room temperature ferroelectricity in fluoroperovskite thin films. *Scientific Reports*, **2017**, 7, 7182	4.9	17
34	First-principles study of the dielectric and dynamical properties of orthorhombic CaMnO3. *Journal of Physics Condensed Matter*, **2008**, 20, 255229	1.8	16
33	First-principles study of vibrational and noncollinear magnetic properties of the perovskite to postperovskite pressure transition of NaMnF3. *Physical Review B*, **2014**, 90,	3.3	15
32	NdBaScO4: aristotype of a new family of geometric ferroelectrics?. *Chemical Communications*, **2016**, 52, 10980-3	5.8	13
31	Novel magneto-electric multiferroics from first-principles calculations. *Comptes Rendus Physique*, **2015**, 16, 153-167	1.4	12
30	Direct Magnetization-Polarization Coupling in BaCuF_{4}. *Physical Review Letters*, **2018**, 121, 117601	7.4	12
29	Making EuO multiferroic by epitaxial strain engineering. *Communications Materials*, **2020**, 1,	6	11
28	TB2J: A python package for computing magnetic interaction parameters. *Computer Physics Communications*, **2021**, 264, 107938	4.2	10
27	Pressure-induced insulator-metal transition in EuMnO. *Journal of Physics Condensed Matter*, **2017**, 29, 305801	1.8	8
26	First-principles characterization of single-electron polaron in WO3. *Physical Review Research*, **2020**, 2,	3.9	8
25	Correlation between optical constants and crystal chemical parameters of ZrW2O8. *Journal of Solid State Chemistry*, **2009**, 182, 2762-2768	3.3	7
24	New Insight into the Concept of Ferroelectric Correlation Volume. *Journal of Computational and Theoretical Nanoscience*, **2008**, 5, 517-520	0.3	7
23	Ultrafast strain engineering and coherent structural dynamics from resonantly driven optical phonons in LaAlO3. *Npj Quantum Materials*, **2020**, 5,	5	6
22	Raman spectra of fine-grained materials from first principles. *Npj Computational Materials*, **2020**, 6,	10.9	6
21	Firefly Algorithm Applied to Noncollinear Magnetic Phase Materials Prediction. *Journal of Chemical Theory and Computation*, **2018**, 14, 4455-4466	6.4	6

20	Bi2W2O9: A potentially antiferroelectric Aurivillius phase. *Physical Review B*, **2020**, 101,	3.3	5
19	Atomic structure of Sr/Si(0 0 1)(1 □2) surfaces prepared by Pulsed laser deposition. *Applied Surface Science*, **2019**, 471, 664-669	6.7	5
18	Density functional perturbation theory within noncollinear magnetism. *Physical Review B*, **2019**, 99,	3.3	4
17	Noncollinear magnetism in post-perovskites from first principles: Comparison between CaRhO3 and NaNiF3. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 689-694	1.3	4
16	Atomic-scale measurement of polar entropy. *Physical Review B*, **2019**, 100,	3.3	4
15	Engineering of Ferroic Orders in Thin Films by Anionic Substitution. *Advanced Functional Materials*,2107[illegible]356	[illegible]	4
14	First-principles study of strain-induced Jahn-Teller distortions in BaFeO. *Journal of Physics Condensed Matter*, **2018**, 30, 255701	1.8	4
13	Ferroelectric instability in nanotubes and spherical nanoshells. *Europhysics Letters*, **2015**, 112, 37006	1.6	3
12	Magneto-electric multiferroics: designing new materials from first-principles calculations. *Physical Sciences Reviews*, **2020**, 5,	1.4	3
11	Ferroelectricity and multiferroicity in anti-Ruddlesden-Popper structures. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3
10	Tuning between Proper and Hybrid-Improper Mechanisms for Polar Behavior in Cs TiNbO Dion-Jacobson Phases. *Chemistry of Materials*, **2020**, 32, 8700-8712	9.6	2
9	Giant photoinduced lattice distortion in oxygen vacancy ordered SrCoO2.5 thin films. *Physical Review B*, **2019**, 100,	3.3	2
8	First-principles study of lattice dynamical properties of the room-temperature P21/n and ground-state P21/c phases of WO3. *Physical Review B*, **2022**, 105,	3.3	2
7	Halide perovskites: third generation photovoltaic materials empowered by metavalent bonding		2
6	Optimizing the orbital occupation in the multiple minima problem of magnetic materials from the metaheuristic firefly algorithm. *Physical Chemistry Chemical Physics*, **2019**, 21, 21932-21941	3.6	2
5	Magnetic phase diagram of rare-earth orthorhombic perovskite oxides. *Physical Review B*, **2021**, 104,	3.3	2
4	Oxyfluoride superlattices KTaO3/KMF3 (M=Zn,Ni): Structural and electronic phenomena. *Physical Review B*, **2020**, 102,	3.3	1
3	Optimized Methodology for the Calculation of Electrostriction from First-Principles. *Small*, **2021**, e2103419	[illegible]	1

2	Tuning octahedral tilts and the polar nature of A-site deficient perovskites. *Chemical Communications*, **2019**, 55, 2609-2612	5.8	1
1	Multianion induced out-of-plane proper polarization in oxyfluoride Aurivillius Bi2TiO4F2. *Journal of Physics and Chemistry of Solids*, **2022**, 167, 110720	3.9	0