Claude Ederer

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

28 66 64 4,404 h-index g-index citations papers 4,829 3.7 70 5.99 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
64	Charge disproportionation and Hund's insulating behavior in a five-orbital Hubbard model applicable to d4 perovskites. <i>Physical Review B</i> , 2021 , 104,	3.3	1
63	Oxygen vacancies in strontium titanate: A DFT+DMFT study. Physical Review Research, 2021, 3,	3.9	2
62	Magnetic exchange interactions in SrMnO3. <i>Physical Review B</i> , 2020 , 101,	3.3	5
61	Interplay between chemical order and magnetic properties in L10 FeNi (tetrataenite): A first-principles study. <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
60	Effect of charge self-consistency in DFT+DMFT calculations for complex transition metal oxides. <i>Physical Review Research</i> , 2020 , 2,	3.9	7
59	Magnetic and ferroelectric properties of Sr1\(\text{BaxMnO3}\) from first principles. <i>Physical Review Research</i> , 2020 , 2,	3.9	1
58	Prediction of a Giant Magnetoelectric Cross-Caloric Effect around a Tetracritical Point in Multiferroic SrMnO_{3}. <i>Physical Review Letters</i> , 2020 , 124, 167201	7.4	11
57	Hund excitations and the efficiency of Mott solar cells. <i>Physical Review B</i> , 2019 , 100,	3.3	7
56	DFT+DMFT study of oxygen vacancies in a Mott insulator. <i>Physical Review B</i> , 2019 , 100,	3.3	2
55	Buried In-Plane Ferroelectric Domains in Fe-Doped Single-Crystalline Aurivillius Thin Films. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 1019-1028	4	19
54	Mechanism and control parameters of the coupled structural and metal-insulator transition in nickelates. <i>Physical Review B</i> , 2019 , 99,	3.3	19
53	Energetics of the coupled electronic Structural transition in the rare-earth nickelates. <i>Npj Quantum Materials</i> , 2019 , 4,	5	15
52	Electronic localization in CaVO3 films via bandwidth control. Npj Quantum Materials, 2019, 4,	5	10
51	Charge transfer in LaVO3/LaTiO3 multilayers: Strain-controlled dimensionality of interface metallicity between two Mott insulators. <i>Physical Review Materials</i> , 2019 , 3,	3.2	2
50	Metal-insulator transition in CaVO3 thin films: Interplay between epitaxial strain, dimensional confinement, and surface effects. <i>Physical Review B</i> , 2018 , 97,	3.3	11
49	Origins of the Inverse Electrocaloric Effect. <i>Energy Technology</i> , 2018 , 6, 1491-1511	3.5	29
48	First-principles-based strain and temperature-dependent ferroic phase diagram of SrMnO3. <i>Physical Review Materials</i> , 2018 , 2,	3.2	10

(2012-2018)

47	The Impact of Hysteresis on the Electrocaloric Effect at First-Order Phase Transitions. <i>Physica Status Solidi (B): Basic Research</i> , 2018 , 255, 1700308	1.3	9
46	Magnetic order in four-layered Aurivillus phases. <i>Physical Review B</i> , 2017 , 95,	3.3	19
45	Interplay between breathing mode distortion and magnetic order in rare-earth nickelates RNiO3 within DFT+U. <i>Physical Review B</i> , 2017 , 96,	3.3	23
44	Understanding the Effect of Doping and Epitaxial Strain on the Ferroelectric Polarization of Layered Perovskite Thin Films. <i>Microscopy and Microanalysis</i> , 2017 , 23, 1606-1607	0.5	
43	Electrocaloric effect in BaTiO3 at all three ferroelectric transitions: Anisotropy and inverse caloric effects. <i>Physical Review B</i> , 2017 , 96,	3.3	41
42	First-principles-based calculation of the electrocaloric effect in BaTiO3: A comparison of direct and indirect methods. <i>Physical Review B</i> , 2016 , 93,	3.3	60
41	Combined first-principles and model Hamiltonian study of the perovskite series RMnO3 (R=La,Pr,Nd,Sm,Eu, and Gd). <i>Physical Review B</i> , 2016 , 93,	3.3	14
40	Tuning the metal-insulator transition in d1 and d2 perovskites by epitaxial strain: A first-principles-based study. <i>Physical Review B</i> , 2016 , 94,	3.3	24
39	Tuning the caloric response of BaTiO 3 by tensile epitaxial strain. <i>Europhysics Letters</i> , 2016 , 115, 47002	1.6	6
38	Controlling the cation distribution and electric polarization with epitaxial strain in Aurivillius-phase Bi5FeTi3O15. <i>Applied Physics Letters</i> , 2016 , 108, 082903	3.4	10
37	Biquadratic and ring exchange interactions in orthorhombic perovskite manganites. <i>Physical Review B</i> , 2015 , 91,	3.3	36
36	Structural and electronic properties of epitaxially strained LaVO3 from density functional theory and dynamical mean-field theory. <i>Physical Review B</i> , 2015 , 92,	3.3	15
35	Ab initio phase diagram of BaTiO3 under epitaxial strain revisited. <i>Applied Physics Letters</i> , 2015 , 107, 102901	3.4	12
34	Electrocaloric effect in BaTiO3: A first-principles-based study on the effect of misfit strain. <i>Applied Physics Letters</i> , 2014 , 104, 212902	3.4	32
33	Strain-induced insulator-to-metal transition in LaTiO3 within DFT + DMFT. <i>Physical Review B</i> , 2014 , 89,	3.3	20
32	Potentially multiferroic Aurivillius phase Bi5FeTi3O15: Cation site preference, electric polarization, and magnetic coupling from first principles. <i>Physical Review B</i> , 2014 , 90,	3.3	88
31	Spin-filtering efficiency of ferrimagnetic spinels CoFe2O4 and NiFe2O4. <i>Physical Review B</i> , 2013 , 87,	3.3	59
30	Dielectric response of epitaxially strained CoFe2O4 spinel thin films. <i>Physical Review B</i> , 2012 , 86,	3.3	22

29	First-principles calculation of magnetoelastic coefficients and magnetostriction in the spinel ferrites CoFe2O4 and NiFe2O4. <i>Physical Review B</i> , 2012 , 86,	3.3	84
28	Rubidium superoxide: A p-electron Mott insulator. <i>Physical Review B</i> , 2012 , 86,	3.3	13
27	Strain effects in spinel ferrite thin films from first principles calculations. <i>Journal of Physics:</i> Conference Series, 2011 , 292, 012014	0.3	10
26	Effect of epitaxial strain on the cation distribution in spinel ferrites CoFe2O4 and NiFe2O4: A density functional theory study. <i>Applied Physics Letters</i> , 2011 , 99, 081916	3.4	69
25	Effect of Hubbard U on the construction of low-energy Hamiltonians for LaMnO3 via maximally localized Wannier functions. <i>Physical Review B</i> , 2011 , 84,	3.3	13
24	Mechanism of ferroelectric instabilities in non-d0 perovskites: LaCrO3 versus CaMnO3. <i>Physical Review B</i> , 2011 , 83,	3.3	27
23	Epitaxial strain effects in the spinel ferrites CoFe2O4 and NiFe2O4 from first principles. <i>Physical Review B</i> , 2010 , 82,	3.3	115
22	Calculation of model Hamiltonian parameters for LaMnO3 using maximally localized Wannier functions. <i>Physical Review B</i> , 2010 , 81,	3.3	13
21	Strain-induced isosymmetric phase transition in BiFeO3. <i>Physical Review B</i> , 2010 , 81,	3.3	225
20	Correlation effects in p-electron magnets: Electronic structure of RbO2 from first principles. <i>Physical Review B</i> , 2009 , 80,	3.3	31
19	First principles studies of multiferroic materials. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 303201	1.8	147
18	Electric-field switchable magnetization via the DzyaloshinskiiMoriya interaction: FeTiO3versus BiFeO3. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 434219	1.8	81
17	Structural distortions and model Hamiltonian parameters: From LSDA to a tight-binding description of LaMnO3. <i>Physical Review B</i> , 2007 , 76,	3.3	28
16	Towards a microscopic theory of toroidal moments in bulk periodic crystals. <i>Physical Review B</i> , 2007 , 76,	3.3	131
15	Magnetic coupling in CoCr2O4 and MnCr2O4: An LSDA+U study. <i>Physical Review B</i> , 2007 , 76,	3.3	60
14	Origin of ferroelectricity in the multiferroic barium fluorides BaMF4: A first principles study. <i>Physical Review B</i> , 2006 , 74,	3.3	86
13	Electric-field-switchable magnets: The case of BaNiF4. <i>Physical Review B</i> , 2006 , 74,	3.3	51
12	Recent progress in first-principles studies of magnetoelectric multiferroics. <i>Current Opinion in Solid State and Materials Science</i> , 2005 , 9, 128-139	12	94

LIST OF PUBLICATIONS

11	Effect of epitaxial strain on the spontaneous polarization of thin film ferroelectrics. <i>Physical Review Letters</i> , 2005 , 95, 257601	7.4	457	
10	Influence of strain and oxygen vacancies on the magnetoelectric properties of multiferroic bismuth ferrite. <i>Physical Review B</i> , 2005 , 71,	3.3	301	
9	Weak ferromagnetism and magnetoelectric coupling in bismuth ferrite. <i>Physical Review B</i> , 2005 , 71,	3.3	1109	
8	First principles study of the multiferroics BiFeO3, Bi2FeCrO6, and BiCrO3: Structure, polarization, and magnetic ordering temperature. <i>Physical Review B</i> , 2005 , 72,	3.3	250	
7	Experimental and computational investigation of structure and magnetism in pyrite Co1\(\text{MFexS2}: Chemical bonding and half-metallicity. \(\text{Physical Review B}, \text{ 2004}, 70, \)	3.3	57	
6	Anisotropy of orbital moments and magnetic dipole term Tz in CrO2: An ab initio study. <i>Physical Review B</i> , 2004 , 69,	3.3	12	
5	Comment on the analysis of angle-dependent X-ray magnetic circular dichroism in systems with reduced dimensionality. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2003 , 130, 97-100	1.7	12	
4	Magnetism in systems with various dimensionalities: A comparison between Fe and Co. <i>Physical Review B</i> , 2003 , 68,	3.3	39	
3	Theory of induced magnetic moments and x-ray magnetic circular dichroism in Co-Pt multilayers. <i>Physical Review B</i> , 2002 , 66,	3.3	36	
2	From the bulk to monatomic wires: An ab initio study of magnetism in Co systems with various dimensionality. <i>Physical Review B</i> , 2002 , 66,	3.3	63	
1	Nanosession: Mott Insulators and Transitions115-122		1	