Etienne Janod

List of Publications by Year
in descending order

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104	2,349	236612 25	223531 46
papers	citations	h-index	g-index

113	113	113	2782
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Artificial Electro-Optical Neuron Integrating Hot Electrons in a Mott Insulator. Physical Review Applied, 2022, 17, .	1.5	1
2	Shifting photo-stationary light-induced excited spin state trapping equilibrium towards higher temperature by increasing light fluence. Chemical Physics Letters, 2022, 791, 139395.	1.2	1
3	Correlated transition metal oxides and chalcogenides for Mott memories and neuromorphic applications. , 2022, , 307-360.		2
4	Nanoprobe study of the electric field driven insulator-to-metal transition in GaMo₄S₈. Journal of Physics: Conference Series, 2022, 2164, 012046.	0.3	0
5	Strain wave pathway to semiconductor-to-metal transition revealed by time-resolved X-ray powder diffraction. Nature Communications, 2021, 12, 1239.	5.8	29
6	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>J</mml:mi><mml:mi>eff</mml:mi></mml:ms metallic phase and unconventional superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>GaTa</mml:mi><mml:mn>4</mml:mn></mm Physical Review B, 2021, 103, .	1.1	4
7	Design of metastable oxychalcogenide phases by topochemical (de)intercalation of sulfur in La2O2S2. Nature Communications, 2021, 12, 3605.	5.8	12
8	Mapping metal/insulator nanodomains switching in V2O3 by variable-temperature electron spectromicroscopy investigations. Microscopy and Microanalysis, 2021, 27, 1482-1485.	0.2	0
9	Solvothermal and mechanochemical intercalation of Cu into La₂O₂S₂ enabled by the redox reactivity of (S₂)^{2â^'} pairs. Dalton Transactions, 2021, 50, 12419-12423.	1.6	3
10	Photoinduced charge density wave phase in 1T-TaS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /> <mml:mn>2</mml:mn> </mml:msub></mml:math>: growth and coarsening mechanisms. Comptes Rendus Physique, 2021, 22, 139-160.	0.3	2
11	Probing and Mapping the Dynamics of Metal/Insulator Nanodomains Switching in V2O3 by Cryo-Spectromicroscopy Techniques. Microscopy and Microanalysis, 2021, 27, 67-68.	0.2	0
12	Control of stoichiometry and morphology in polycrystalline V2O3 thin films using oxygen buffers. Journal of Materials Science, 2020, 55, 14717-14727.	1.7	2
13	Competition between V2O3 phases deposited by one-step reactive sputtering process on polycrystalline conducting electrode. Thin Solid Films, 2020, 705, 138063.	0.8	7
14	Unusually long carrier lifetime in a Mott insulator revealed by time-resolved Photoemission Electron Microscopy. , 2020, , .		0
15	Hot carriers generation and resistive switching induced by electric and light pulses in the Mott insulator GaTa4Se8 (Conference Presentation). , 2020, , .		0
16	THz Driven Dynamics in Mott Insulator GaTa₄ Se₈. , 2019, , .		1
17	Unexplored reactivity of (S_n)^{2â^'} oligomers with transition metals in low-temperature solid-state reactions. Chemical Communications, 2019, 55, 6189-6192.	2.2	7
18	Different threshold and bipolar resistive switching mechanisms in reactively sputtered amorphous undoped and Cr-doped vanadium oxide thin films. Journal of Applied Physics, 2018, 123, .	1.1	33

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19	Non-volatile resistive switching in the Mott insulator (V1â”xCrx)2O3. Physica B: Condensed Matter, 2018, 536, 327-330.	1.3	9
20	A Topochemical Approach to Synthesize Layered Materials Based on the Redox Reactivity of Anionic Chalcogen Dimers. Angewandte Chemie, 2018, 130, 13806-13811.	1.6	1
21	Mott insulators: A large class of materials for Leaky Integrate and Fire (LIF) artificial neuron. Journal of Applied Physics, 2018, 124, .	1.1	24
22	Relaxation of a Spiking Mott Artificial Neuron. Physical Review Applied, 2018, 10, .	1.5	14
23	First demonstration of â€œLeaky Integrate and Fireâ€•artificial neuron behavior on (V0.95Cr0.05)2O3 thin film. MRS Communications, 2018, 8, 835-841.	0.8	11
24	Mott Memory Devices Based on the Mott Insulator (V1-xCrx)2O3. , 2018, , .		1
25	How a dc Electric Field Drives Mott Insulators Out of Equilibrium. Physical Review Letters, 2018, 121, 016601.	2.9	33
26	A Topochemical Approach to Synthesize Layered Materials Based on the Redox Reactivity of Anionic Chalcogen Dimers. Angewandte Chemie - International Edition, 2018, 57, 13618-13623.	7.2	15
27	Combined First-Principles Calculations and Experimental Study of the Phonon Modes in the Multiferroic Compound GeV₄S₈. Journal of Physical Chemistry C, 2017, 121, 3522-3529.	1.5	10
28	A Leakyâ€Integrateâ€andâ€Fire Neuron Analog Realized with a Mott Insulator. Advanced Functional Materials, 2017, 27, 1604740.	7.8	186
29	(Invited) Control of Resistive Switching in Mott Memories Based on TiN/AM4Q8/TiN MIM Devices. ECS Transactions, 2017, 75, 3-12.	0.3	2
30	An Artificial Neuron Founded on Resistive Switching of Mott Insulators. , 2017, , .		1
31	Direct experimental observation of the molecular J effâ€‰=â€‰3/2 ground state in the lacunar spinel GaTa4Se8. Nature Communications, 2017, 8, 782.	5.8	30
32	Crystal structure and chemical bonding in the mixed anion compound BaSF. Dalton Transactions, 2017, 46, 16244-16250.	1.6	11
33	Ultrafast Formation of a Charge Density Wave State in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â”</mml:mtext><mml:msub><mml:mrow><m : Observation at Nanometer Scales Using Time-Resolved X-Ray Diffraction. Physical Review Letters, 2017, 118, 247401.	8.6	60
34	A flavoprotein supports cell wall properties in the necrotrophic fungus Alternaria brassicicola. Fungal Biology and Biotechnology, 2017, 4, 1.	2.5	25
35	Metalâ€“insulator transitions in (V1-xCrx)2O3 thin films deposited by reactive direct current magnetron co-sputtering. Thin Solid Films, 2016, 617, 56-62.	0.8	17
36	Ba₂F₂Fe_{1.5}Se₃: An Intergrowth Compound Containing Iron Selenide Layers. Inorganic Chemistry, 2016, 55, 2923-2928.	1.9	7

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37	X-ray study of femtosecond structural dynamics of the charge-density wave compound 1T-TaS2. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s143-s143.	0.0	0
38	Control of resistive switching in AM₄Q₈narrow gap Mott insulators: A first step towards neuromorphic applications. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 239-244.	0.8	18
39	Resistive Switching in Mott Insulators and Correlated Systems. Advanced Functional Materials, 2015, 25, 6287-6305.	7.8	130
40	Negative Colossal Magnetoresistance Driven by Carrier Type in the Ferromagnetic Mott Insulator GaV₄S₈. Chemistry of Materials, 2015, 27, 4398-4404.	3.2	13
41	Resistive Switching Induced by Electric Pulses in a Single-Component Molecular Mott Insulator. Journal of Physical Chemistry C, 2015, 119, 2983-2988.	1.5	15
42	From Resistive Switching Mechanisms in AM4Q8 Mott Insulators to Mott Memories. , 2015, , .		0
43	X-ray study of femtosecond structural dynamics in the 2D charge density wave compound 1T-TaS2. Physica B: Condensed Matter, 2015, 460, 100-104.	1.3	14
44	Coherent long-range magnetic bound states in aÂsuperconductor. Nature Physics, 2015, 11, 1013-1016.	6.5	155
45	Electric Pulse Induced Resistive Switching in the Narrow Gap Mott Insulator GaMo₄S₈. Key Engineering Materials, 2014, 617, 135-140.	0.4	10
46	Orbital-Ordering-Driven Multiferroicity and Magnetoelectric Coupling in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>GeV</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub><mml:mrow><mml:mi mathvariant="normal">S</mml:mi></mml:mrow><mml:mrow><mml:mn>8</mml:mn></mml:mrow></mml:mrow></mml:math>. Physical Review Letters, 2014, 113, 137602.	2.9	51
47	First-Order Insulator-to-Metal Mott Transition in the Paramagnetic 3D System<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>GaTa</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2014, 113, 086404.	2.9	52
48	Relation between Thermally Induced Structural Distortions and Electronic Properties of the Layered Misfit Chalcogenide (LaS)1.196VS2. Journal of Physical Chemistry C, 2014, 118, 19273-19279.	1.5	5
49	Nonthermal and purely electronic resistive switching in a Mott memory. Physical Review B, 2014, 90, .	1.1	44
50	Deposition of GaV₄S₈ thin films by H₂S/Ar reactive sputtering for ReRAM applications. Journal Physics D: Applied Physics, 2014, 47, 065309.	1.3	7
51	Resistive Switching at the Nanoscale in the Mott Insulator Compound GaTa₄Se₈. Nano Letters, 2013, 13, 3648-3653.	4.5	62
52	Universal Electricâ€Fieldâ€Driven Resistive Transition in Narrowâ€Gap Mott Insulators. Advanced Materials, 2013, 25, 3222-3226.	11.1	114
53	Electric field induced avalanche breakdown and non-volatile resistive switching in the Mott Insulators AM4Q8. European Physical Journal: Special Topics, 2013, 222, 1046-1056.	1.2	14
54	Deposition by radio frequency magnetron sputtering of GaV4S8 thin films for resistive random access memory application. Thin Solid Films, 2013, 533, 54-60.	0.8	9

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55	Avalanche breakdown in GaTa4Se8â^'xTex narrow-gap Mott insulators. Nature Communications, 2013, 4, 1722.	5.8	100
56	Electrical characterizations of resistive random access memory devices based on GaV4S8 thin layers. Thin Solid Films, 2013, 533, 61-65.	0.8	19
57	Optical Conductivity Measurements of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>GaTa</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mi>Se</mml:mi><mml:mn> High Pressure: Evidence of a Bandwidth-Controlled Insulator-to-Metal Mott Transition. Physical Review Letters, 2013, 110, 037401.	2.9	49
58	Mott-memories Based on the Narrow Gap Mott Insulators AM4Q8 (A=Ga, Ge ; M = V, Nb, Ta ; Q = S, Se). Materials Research Society Symposia Proceedings, 2013, 1562, 1.	0.1	0
59	Ultrafast filling of an electronic pseudogap in an incommensurate crystal. Physical Review B, 2013, 87, .	1.1	14
60	Neutrons, sciences and perspectives. European Physical Journal: Special Topics, 2012, 213, 1-3.	1.2	0
61	Resistive Switching Driven by Electric Field in the Mott Insulators AM4X8 (A = Ga, Ge; M= V, Nb, Ta; X =) Tj ETQq1 1 0.784314 rgBT /Ov		1
62	Control of the Electronic Properties and Resistive Switching in the New Series of Mott Insulators GaTa₄Se_{8â€“y}Te_y (0 â‰¤ y â‰¤ 6.5). Chemistry of Materials, 2011, 23, 2611-2618.	3.2	28
63	First evidence of resistive switching in polycrystalline GaV₄S₈ thin layers. Physica Status Solidi - Rapid Research Letters, 2011, 5, 53-55.	1.2	23
64	Orbital anisotropy and low-energy excitations of the quasi-one-dimensional conductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math>-Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.17</mml:mn></mml:mrow></mml:msub></mml:math>V<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mml:	1.1	15
65	Electricâ€Fieldâ€induced Resistive Switching in a Family of Mott Insulators: Towards a New Class of RRAM Memories. Advanced Materials, 2010, 22, 5193-5197.	11.1	125
66	Half-Metallic Ferromagnetism and Large Negative Magnetoresistance in the New Lacunar Spinel GaTi₃VS₈. Journal of the American Chemical Society, 2010, 132, 5704-5710.	6.6	55
67	Incommensurate spin correlation driven by frustration inBiCu2PO6. Physical Review B, 2009, 80, .	1.1	36
68	Electricâ€Fieldâ€Assisted Nanostructuring of a Mott Insulator. Advanced Functional Materials, 2009, 19, 2800-2804.	7.8	23
69	Charge dynamics in quasi-one dimensional Î²-Sr1/6V2O5. European Physical Journal B, 2009, 69, 181-186.	0.6	3
70	Thin Layers Obtained by Plasma Process for Emerging Non-Volatile Memory (RRAM) Applications. , 2009, , .		3
71	Electricâ€Pulseâ€driven Electronic Phase Separation, Insulatorâ€“Metal Transition, and Possible Superconductivity in a Mott Insulator. Advanced Materials, 2008, 20, 2760-2765.	11.1	70
72	Electric-pulse-induced resistive switching and possible superconductivity in the Mott insulator GaTa4Se8. Microelectronic Engineering, 2008, 85, 2430-2433.	1.1	28

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73	Structure and Magnetic Properties of Oxychalcogenides A₂F₂Fe₂OQ₂(A = Sr, Ba; Q = S, Se) with Fe₂O Square Planar Layers Representing an Antiferromagnetic Checkerboard Spin Lattice. Journal of the American Chemical Society, 2008, 130, 8261-8270.	6.6	105
74	Metalâ^'Metal Bonding and Correlated Metallic Behavior in the New Deficient Spinel Ga0.87Ti4S8. Chemistry of Materials, 2008, 20, 2382-2387.	3.2	27
75	Polarized reflectivity of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mi mathvariant="normal">Sr</mml:mi><mml:mn>0.17</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">V</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2008, 77, .	1.1	6
76	Magnetic study of two isotypic manganese chloro-sulfides: MnSbS2Cl and the new compound MnBiS2Cl. Journal of Solid State Chemistry, 2006, 179, 486-491.	1.4	9
77	Optical transitions in the two-leg ladder compoundsAxV6O15(A=Sr,Na). Physical Review B, 2005, 72, .	1.1	13
78	Magnetoelastic polarons in the hole-doped quasi-one-dimensional model systemY2â^'xCaxBaNiO5. Physical Review B, 2004, 70, .	1.1	1
79	Crystal structure and charge order below the metalâ€“insulator transition in the vanadium bronze Î²-SrV6O15. Solid State Sciences, 2003, 5, 591-599.	1.5	23
80	Photoemission spectroscopy study of the hole-doped Haldane chain Y2â^'xSrxBaNiO5. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 242-247.	0.6	0
81	Crystal Structure and Charge Order Below the Metalâ€”Insulator Transition in the Vanadium Bronze Î²-SrV6O15.. ChemInform, 2003, 34, no.	0.1	0
82	MÃ¶ssbauer characterization of tin dopant ions in the antiferromagnetic ilmenite MnTiO3. Solid State Communications, 2003, 125, 341-346.	0.9	16
83	Anomalous spectral weight in photoemission spectra of the hole-doped Haldane chainY2â^'xSrxBaNiO5. Physical Review B, 2003, 67, .	1.1	6
84	Crystallization of quasi-two-dimensional vanadates in the CaOâ€“V2O3â€“VO2â€“V2O5 system. Journal of Crystal Growth, 2002, 240, 170-175.	0.7	10
85	Unconventional antiferromagnetic correlations of the doped Haldane gapsystem Y 2 BaNi 1 - x Zn x O 5. European Physical Journal B, 2002, 25, 39-51.	0.6	2
86	Electronic structure of a hole doped oxide with a quasi-1D crystal structure Y2â^'x(Sr,Ca)xBaNiO5. Journal of Alloys and Compounds, 2001, 317-318, 149-152.	2.8	9
87	Random interactions and spin-glass thermodynamic transition in the hole-doped Haldane systemY2â^'xCaxBaNiO5. Physical Review B, 2001, 63, .	1.1	8
88	Experimental evidence for a spin gap in the s=1/2 quantum antiferromagnet Cu2(OH)2CO3. Solid State Communications, 2000, 116, 513-518.	0.9	13
89	Evidence of quantum criticality in the doped Haldane systemY2BaNiO5. Physical Review B, 2000, 62, 2998-3001.	1.1	18
90	Large Magnetic Entropy in Giant Magnetoresistive Amorphous Gadolinium Silicon. Physical Review Letters, 1999, 83, 2266-2269.	2.9	30

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91	Magnetisation as a probe of the pairing symmetry in Bi2Sr2CuO6 + Î´. Physica C: Superconductivity and Its Applications, 1997, 281, 176-184.	0.6	3
92	Magneto-thermal oscilations in a granular YBCO superconductor. European Physical Journal D, 1996, 46, 1279-1280.	0.4	1
93	Self-organized criticality effect on stability: magneto-thermal oscillations in a granular YBCO superconductor. Europhysics Letters, 1996, 34, 287-292.	0.7	10
94	Observation of a specific heat anomaly at the superconducting transition in single-layer cuprate Bi2.12Sr1.88CuO6+Î´. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 205, 105-111.	0.9	8
95	Specific heat of YBa2Cu3O7âˆ’Î´ ceramics with single and double superconducting transitions in magnetic fields up to 14 T. Physica C: Superconductivity and Its Applications, 1995, 241, 301-310.	0.6	10
96	A dimensional characteristic in the specific heat of high temperature superconductors. Physica C: Superconductivity and Its Applications, 1995, 244, 225-230.	0.6	7
97	Specific heat and magnetic susceptibility of YBa2Cu3O7 at the superconducting transition. Physica B: Condensed Matter, 1994, 194-196, 1495-1496.	1.3	6
98	Double superconducting transitions in YBa2Cu3Ox versus oxygen content. Physica B: Condensed Matter, 1994, 194-196, 1939-1940.	1.3	5
99	Reversible magnetization below Tc in high-quality superconducting ceramics. Physica C: Superconductivity and Its Applications, 1994, 224, 263-276.	0.6	44
100	Specific heat up to 14 tesla of a YBa2Cu3O6.92 single crystal. Physica C: Superconductivity and Its Applications, 1994, 234, 269-279.	0.6	23
101	Magnetisation study of an optimized single crystal of YBa2Cu3O7âˆ’Î´. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1555-1556.	0.6	2
102	Calorimetric study of YBa2Cu3O6.92 in very high magnetic field: 27 Tesla. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1763-1764.	0.6	7
103	Preparation and superconducting properties of high-quality Bi-2212 ceramics. Journal of Alloys and Compounds, 1994, 209, 225-229.	2.8	21
104	Split superconducting transitions in the specific heat and magnetic susceptibility of YBa2Cu3Ox versus oxygen content. Physica C: Superconductivity and Its Applications, 1993, 216, 129-139.	0.6	39