

Laurent C Chapon

List of Publications by Year in descending order

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papers

6,988
citations

76326

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144
all docs

144
docs citations

144
times ranked

7396
citing authors

#	ARTICLE	IF	CITATIONS
1	Coherent many-body exciton in van der Waals antiferromagnet NiPS ₃ . Nature, 2020, 583, 785-789.	27.8	134
2	Seeing is believing: visualization of antiferromagnetic domains. Npj Quantum Materials, 2020, 5, .	5.2	62
3	Spin-wave directional anisotropies in antiferromagnetic Ba ₃ NbFe ₃ Si ₂ O ₁₄ . Physical Review B, 2019, 100, .	3.2	5
4	Spin decoupling under a staggered field in the swedenborgite Gd_2O_7 pyrochlore. Physical Review B, 2019, 99, .	3.2	11
5	Magnetic structure of the swedenborgite $\text{CaBa}_7\text{O}_{19}$ derived by unpolarized neutron diffraction and spherical neutron polarimetry. Physical Review B, 2018, 97, .	3.2	11
6	Manifolds of magnetic ordered states and excitations in the almost Heisenberg pyrochlore antiferromagnet MgCr_2O_4 . Physical Review B, 2018, 97, .	3.2	14
7	Multiferroic phase diagram of $\text{E}-\text{type MnO}$ films studied by neutron and x-ray diffraction. Physical Review B, 2018, 98, .	3.2	10
8	Spherical neutron polarimetry under high pressure for a multiferroic delafossite ferrite. Nature Communications, 2018, 9, 4368.	12.8	7
9	Switching of the Chiral Magnetic Domains in the Hybrid Molecular/Inorganic Multiferroic $(\text{ND}_4)_2[\text{FeCl}_5(\text{D}_2\text{O})]$. Scientific Reports, 2018, 8, 10665.	3.3	13
10	Complex magnetic structure of the swedenborgite $\text{CaBa}(\text{Co}_3\text{Fe})\text{O}_7$ derived by unpolarized neutron diffraction and spherical neutron polarimetry. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e101-e101.	0.1	0
11	Coupled multiferroic domain switching in the canted conical spin spiral system Mn_2GeO_4 . Nature Communications, 2017, 8, 15457.	12.8	17
12	Tuning the multiferroic mechanisms of TbMnO_3 by epitaxial strain. Scientific Reports, 2017, 7, 44753.	3.3	26
13	Origin of the magnetoelectric effect in the $\text{Cs}_2\text{FeCl}_5\text{D}_2\text{O}$ compound. Physical Review B, 2017, 96, .	3.2	2
14	Magnetic-field-induced change of magnetoelectric coupling in the hybrid multiferroic TjETQq_5I . Physical Review B, 2017, 95, .	3.2	15
15	Fragmentation in spin ice from magnetic charge injection. Nature Communications, 2017, 8, 209.	12.8	37
16	The application of interference fits for overcoming limitations in clamping methodologies for cryo-cooling first crystal configurations in x-ray monochromators. IOP Conference Series: Materials Science and Engineering, 2017, 278, 012055.	0.6	0
17	Effect of chemical pressure induced by $\text{La}^{3+}/\text{Y}^{3+}$ substitution on the magnetic ordering of $(\text{AMn}_3)\text{Mn}_4\text{O}_{12}$ quadruple perovskites. Physical Review Materials, 2017, 1, .	2.4	10
18	Understanding multiferroicity in the new $(\text{ND}_4)_2\text{FeCl}_5(\text{D}_2\text{O})$ molecular magnet. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C90-C90.	0.1	0

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19	Strong magnetoelastic coupling at the transition from harmonic to anharmonic order in NaFe_3d^2 . Physical Review B, 2016, 94, .	3.2	11
20	Exchange anisotropy as mechanism for spin-stripe formation in frustrated spin chains. Physical Review B, 2016, 94, .	3.2	9
21	Modulated spin helicity stabilized by incommensurate orbital density waves in a quadruple perovskite manganite. Physical Review B, 2016, 93, .	3.2	27
22	Anisotropic interactions opposing magnetocrystalline anisotropy in $\text{Sr}_2\text{Mn}_2\text{O}_7$. Physical Review B, 2016, 93, .	3.2	16
23	Room-temperature tetragonal non-collinear Heusler antiferromagnet Pt ₂ MnGa. Nature Communications, 2016, 7, 12671.	12.8	35
24	Anisotropy-Tuned Magnetic Order in Pyrochlore Iridates. Physical Review Letters, 2015, 114, 247202.	7.8	40
25	Magnetically-induced ferroelectricity in the (ND ₄) ₂ [FeCl ₅ (D ₂ O)] molecular compound. Scientific Reports, 2015, 5, 14475.	3.3	27
26	Spin-stripe phase in a frustrated zigzag spin-1/2 chain. Nature Communications, 2015, 6, 7255.	12.8	41
27	Gradual Localization of $S=1/2$ States in Orthorhombic LTX Ferromagnets: Polarized Neutron Diffraction Study of Ru Substituted UCoGe. Journal of the Physical Society of Japan, 2015, 84, 084707.	1.6	9
28	Magnetic phase diagram and ordered ground state of GdMn_2O_5 multiferroic studied by x-ray magnetic scattering. Journal of Physics: Conference Series, 2014, 519, 012004.	0.4	6
29	Helical order and multiferroicity in the $\text{Sr}_2\text{Mn}_2\text{O}_7$ system. Physical Review B, 2014, 89, .	3.2	13
30	Magnetically induced femtoscale strain modulations in HoMn_2O_5 . Physical Review B, 2014, 89, .	3.2	3
31	Structural and magnetic characterization of iron oxyselenides $\text{Ce}_2\text{O}_2\text{Se}_2$. Physical Review B, 2014, 89, .	3.2	10
32	Magnetic order in the frustrated Ising-like chain compound $\text{Sr}_3\text{Mn}_6\text{O}_{14}$. Physical Review B, 2014, 90, .	3.2	27
33	Mantidac: Data analysis and visualization package for neutron scattering and SR experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 764, 156-166.	1.6	1,257
34	A decade of multiferroic research: new concepts and materials. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C15-C15.	0.1	0
35	The roles of chirality and polarity in novel multiferroics: MnSb_2O_6 and $\text{Cu}_3\text{Nb}_2\text{O}_8$. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C386-C386.	0.1	0
36	Magnetic moment distribution modeling in non stoichiometric Ni-Mn-Ga ferromagnetic shape memory alloys. Journal of Physics: Conference Series, 2014, 549, 012016.	0.4	2

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37	Fast Neutron Laue Diffraction with CCD Detectors. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C684-C684.	0.1	0
38	Gigantic magnetic-field-induced polarization and magnetoelectric coupling in a ferrimagnetic oxide CaBaCo \times 4</math>. Physical Review B, 2013, 88, .	3.2	83
39	MnSb \times 6</math>: A Polar Magnet with a Chiral Crystal Structure. Physical Review Letters, 2013, 111, 017202.	7.8	32
40	Giant Tunability of Ferroelectric Polarization in GdMn \times 2O \times 5. Physical Review Letters, 2013, 110, 137203.	7.8	105
41	X-Ray Imaging and Multiferroic Coupling of Cycloidal Magnetic Domains in Ferroelectric Monodomain BiFeO \times 3</math>. Physical Review Letters, 2013, 110, 217206.	7.8	67
42	Neutron scattering and muon spin relaxation measurements of the noncentrosymmetric antiferromagnet CeCoGe \times 3</math>. Physical Review B, 2013, 88, .	3.2	49
43	Influence of Cr doping on the magnetic structure of the FeAs-strips compound CaFe \times 4As \times 3: A single-crystal neutron diffraction study. Physical Review B, 2013, 88, .	3.2	1
44	Magnetization distribution and orbital moment in the nonsuperconducting chalcogenide compound K \times 0.8Fe \times 1.6Se \times 2. Physical Review B, 2013, 88, .	3.2	1
45	MnSb \times 2O \times 6: a polar magnet with a chiral crystal structure. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s623-s623.	0.3	0
46	Possible chiral spin-liquid phase in noncentrosymmetric RBaCo \times 4O \times 7. Physical Review B, 2012, 85, .	3.2	8
47	Publisher's Note: Spin-ordering and magnetoelastic coupling in the extended kagome system YBaCo \times 4O \times 7 [Phys. Rev. B 83, 094412 (2011)]. Physical Review B, 2012, 85, .	3.2	0
48	Magnetic symmetries in neutron and resonant x-ray Bragg diffraction patterns of four iridium oxides. Journal of Physics Condensed Matter, 2012, 24, 496003.	1.8	18
49	An introduction to the use of representation analysis for studying magnetoelectrics and multiferroics. EPJ Web of Conferences, 2012, 22, 00013.	0.3	4
50	Inelastic neutron scattering study of Ni-substituted Ce \times 0.5Fe \times 4Sb \times 12</math> skutterudite compounds. Journal of Physics: Conference Series, 2012, 391, 012013.	0.4	0
51	Magneto-orbital helices as a route to coupling magnetism and ferroelectricity in multiferroic CaMn \times 7O \times 12. Nature Communications, 2012, 3, 1277.	12.8	88
52	Low temperature magnetic structure of geometrically frustrated SrHo \times 2O \times 4</math>. Journal of Physics: Conference Series, 2012, 391, 012081.	0.4	15
53	Spin-assisted ferroelectricity in ferrimagnetic CaBaCo \times 7</math>. Physical Review B, 2012, 86, .	3.2	60
54	Physico-chemical treatment applied to compost liquor: Feasibility study. Journal of Industrial and Engineering Chemistry, 2012, 18, 1522-1528.	5.8	9

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55	Giant improper Ferroelectricity in the Ferroaxial Magnet $\text{CaMn}_7\text{O}_{12}$. Physical Review Letters, 2011, 106, 257601.	7.8	235
56	Electric Field Control of the Magnetic Chiralities in Ferroaxial Multiferroic $\text{RbFe}_2\text{MoO}_4$. Physical Review Letters, 2011, 106, 257601.	7.8	170
57	Giant improper ferroelectricity in the ferroaxial magnet $\text{CaMn}_7\text{O}_{12}$. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s95-s95.	0.3	0
58	Wish: The New Powder and Single Crystal Magnetic Diffractometer on the Second Target Station. Neutron News, 2011, 22, 22-25.	0.2	261
59	Substitution Effect on the Interplane Coupling in Crednerite: the Helical spin waves, magnetic order, and fluctuations in the langasite compound BaCu_2O_7 . Chemistry of Materials, 2011, 23, 85-94.	6.7	21
60	Complex room-temperature ferrimagnetism induced by zigzag stripes of oxygen vacancies in $\text{Sr}_3\text{YCo}_4\text{O}_{10}$. Physical Review B, 2011, 83, .	3.2	36
61	The magnetic motif and the wavefunction of Kramers ions in strontium iridate $(\text{Sr}_2\text{IrO}_4)$. Journal of Physics Condensed Matter, 2011, 23, 252201.	1.8	36
62	Complex room-temperature ferrimagnetism induced by zigzag stripes of oxygen vacancies in $\text{Sr}_3\text{YCo}_4\text{O}_{10}$. Physical Review B, 2011, 83, .	3.2	33
63	Helical magnetic state in the distorted triangular lattice of $\pm\text{-CaCr}_2\text{O}_4$. Physical Review B, 2011, 83, .	3.2	30
64	Spontaneous toroidal moment and field-induced magnetotoroidic effects in $\text{BaCoGe}_2\text{O}_7$. Physical Review Letters, 2011, 107, 137205.	3.2	36
65	Kinetic study of compost liquor nitrification. Water Science and Technology, 2011, 63, 868-876.	2.5	8
66	Theory of High-Temperature Multiferroicity in Cupric Oxide. Physical Review Letters, 2011, 106, 257601.	7.8	42
67	Slow Magnetic Order-Order Transition in the Spin Chain Antiferromagnet $\text{Ca}_3\text{Co}_2\text{O}_6$. Physical Review Letters, 2011, 107, 137205.	7.8	74
68	Publisher's Note: Slow Magnetic Order-Order Transition in the Spin Chain Antiferromagnet $\text{Ca}_3\text{Co}_2\text{O}_6$. Physical Review Letters, 2011, 107, .	7.8	0
69	Coexistence of the long-range and short-range magnetic order components in Sr_2IrO_7 . Physical Review Letters, 2011, 106, 257601.	3.2	37
70	Slow Magnetic Order-Order Transition in the Spin Chain Antiferromagnet $\text{Ca}_3\text{Co}_2\text{O}_6$. Physical Review Letters, 2011, 107, 137205.	7.8	74
71	Elastic coupling in the extended Kagome system $\text{YBaCo}_4\text{O}_{13}$. Physical Review Letters, 2011, 106, 257601.	3.2	36
72	Noncollinear magnetic order in the $\text{Sr}_3\text{ZnRhO}_7$. Physical Review B, 2011, 83, .	3.2	10

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73	Phase stability study of BiO.15Sr0.85-xAexCoO3- $\hat{\Gamma}$ (x=0 and Ae=Ba0.28; Ca0.17) perovskites by in-situ neutron diffraction. Materials Research Bulletin, 2010, 45, 1875-1882.	5.2	2
74	Zircon to scheelite phase transition induced by pressure and magnetism in TbCrO_3 . Physical Review B, 2010, 81, .	3.2	20
75	Magnetoelastic coupling in the frustrated antiferromagnetic triangular lattice CuMnO_2 . Physical Review B, 2010, 82, .	3.2	25
76	Long-range magnetic order in CeRu_2O_7 via muon spin relaxation and neutron diffraction. Physical Review B, 2010, 82, .	3.2	14
77	Spin correlations in the geometrically frustrated zigzag ladders with staggered magnetic chirality in the weak-field approach and Monte Carlo simulations. Physical Review B, 2010, 82, .	3.2	28
78	BaCo_2S_2 . Physical Review B, 2010, 82, .	3.2	44
79	Incommensurate spin-density wave and magnetic lock-in transition in CaFe_2O_7 . Physical Review B, 2010, 81, .	3.2	21
80	Incommensurate magnetic structure of YMn_2O_7 : A stringent test of the multiferroic mechanism. Physical Review B, 2009, 79, .	3.2	27
81	Origin of the long-wavelength magnetic modulation in $\text{Ca}_3\text{Mn}_2\text{O}_{10}$. Physical Review B, 2009, 80, .	3.2	36
82	Structural behavior of the kagome antiferromagnet TmBaCo_4 . Neutron diffraction study and group-theoretical consideration. Physical Review B, 2009, 80, .	3.2	89
83	One-Dimensional Magnetic Fluctuations in the Spin-2 Triangular Lattice $\hat{\Gamma}$ -NaMnO ₂ . Physical Review Letters, 2009, 103, 077202.	7.8	63
84	Spintronics and functional materials. Materials Today, 2009, 12, 70-77.	14.2	30
85	Structural distortions in the spin-gap regime of the quantum antiferromagnet SrCu ₂ (BO ₃) ₂ . Journal of Solid State Chemistry, 2009, 182, 3275-3281.	2.9	14
86	Effect of Ga Content on the Instantaneous Structure of Al _{1-x} Ga _x PO ₄ Solid Solutions at High Temperature. Chemistry of Materials, 2009, 21, 237-246.	6.7	12
87	Multiferroicity and spiral magnetism in FeVO_4 quenched Fe orbital moments. Physical Review B, 2009, 80, .	4.2	38
88	Magnetic Correlations in the Extended Kagome YBaCo_4O_7 Probed by Electric-Field-Induced Switching of Antiferromagnetic Domains. Physical Review Letters, 2008, 103, 037202.	7.8	95
89	YMn_2O_7 : A Probe of the Multiferroic Mechanism. Physical Review Letters, 2008, 101, 067205.	7.8	43
90	A neutron diffraction study of RMn_2O_5 multiferroics. Journal of Physics Condensed Matter, 2008, 20, 434213.	1.8	75

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91	<p>Commensurate magnetic structures of $R\text{Mn}_2\text{O}_5$</p> <p>http://www.w3.org/1998/Math/MathML</p>		



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109	Imaging crystallographic phases using time-of-flight neutron diffraction. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 1203-1205.	2.7	1
110	Structural and magnetic properties of the Kagomé antiferromagnet YbBaCo ₄ O ₇ . <i>Journal of Solid State Chemistry</i> , 2006, 179, 1136-1145.	2.9	138
111	Crystal structure and high-pressure properties of δ -Mo ₂ N determined by neutron powder diffraction and X-ray diffraction. <i>Journal of Solid State Chemistry</i> , 2006, 179, 1762-1767.	2.9	61
112	Neutron texture analysis on GEM at ISIS. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 639-643.	2.7	48
113	Neutrons in cultural heritage research. <i>Journal of Neutron Research</i> , 2006, 14, 37-42.	1.1	17
114	Ferroelectricity Induced by Acentric Spin-Density Waves in YMn ₂ O ₅ . <i>Physical Review Letters</i> , 2006, 96, 097601.	7.8	201
115	Competing magnetic interactions in the extended Kagomé system YBaCo ₄ O ₇ . <i>Physical Review B</i> , 2006, 74, .	3.2	128
116	Neutron and X-ray characterisation of the metallurgical properties of a 7th century BC Corinthian-type bronze helmet. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005, 239, 16-26.	1.4	23
117	Crystal structure of the superconducting layered cobaltate Na _x CoO ₂ ·yD ₂ O. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 3293-3304.	1.8	14
118	Magnetic order and lattice anomalies in the J ₁ -J ₂ model system VOMoO ₄ . <i>Physical Review B</i> , 2005, 71, .	3.2	32
119	Structural changes induced by Ce filling in partially filled skutterudites. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 3525-3535.	1.8	5
120	Spin structure and magnetic frustration in multiferroic RMn ₂ O ₅ (R=Tb, Ho, Dy). <i>Physical Review B</i> , 2005, 71, .	3.2	252
121	Cu(HCO ₂) ₂ (pym) (pym = pyrimidine): Low-Dimensional Magnetic Behavior and Long-Range Ordering in a Quantum-Spin Lattice. <i>Inorganic Chemistry</i> , 2005, 44, 989-995.	4.0	40
122	Hydrogen Cycling of Niobium and Vanadium Catalyzed Nanostructured Magnesium. <i>Journal of the American Chemical Society</i> , 2005, 127, 14348-14354.	13.7	222
123	Crystal structure of the superconducting layered cobaltite Na _x CoO ₂ ·yD ₂ O. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2005, 61, c100-c101.	0.3	0
124	Structural Anomalies and Multiferroic Behavior in Magnetically Frustrated TbMn ₂ O ₅ . <i>Physical Review Letters</i> , 2004, 93, 177402.	7.8	309
125	Structure and magnetism in synthetic pyrrhotite Fe ₇ S ₈ : A powder neutron-diffraction study. <i>Physical Review B</i> , 2004, 70, .	3.2	116
126	S=1/2 sing behavior in the two-dimensional molecular magnet Fe(NCS) ₂ (pyrazine) ₂ . <i>Physical Review B</i> , 2004, 69, .	3.2	27

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127	Field-induced avalanche to the ferromagnetic state in the phase-separated ground state of manganites. <i>Physical Review B</i> , 2004, 70, .	3.2	32
128	Spin ordering in the mixed-ligand antiferromagnet Mn(dca) ₂ (pyrazine). <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 260, 462-466.	2.3	10
129	Neutron powder diffraction study of strain and crystallite size in mechanically alloyed PbTe. <i>Journal of Solid State Chemistry</i> , 2003, 173, 189-195.	2.9	54
130	Structural and magnetic behavior of a quasi-1D antiferromagnetic chain compound Cu(NCS) ₂ (pyz). <i>Polyhedron</i> , 2003, 22, 2045-2049.	2.2	26
131	Structural and magnetic ordering in Pr _{0.65} (Ca _y Sr _{1-\hat{y})_{0.35}MnO₃: Quantum critical point versus phase segregation scenarios. <i>Physical Review B</i>, 2002, 66, .}	3.2	37
132	A Neutron Diffraction Study of the Thermal Stability of the $\hat{\pm}$ -Quartz-Type Structure in Germanium Dioxide. <i>Journal of Solid State Chemistry</i> , 2002, 166, 434-441.	2.9	100
133	Spin excitations in 3D molecular magnets probed by neutron scattering. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s634-s636.	2.3	7
134	Magnetic ordering and spin excitations in Mn(dca) ₂ (pyz) [dca = N(CN) ₂ -, pyz = pyrazine]. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s722-s724.	2.3	10
135	Anomalous physical properties of cerium-lanthanum filled skutterudites. <i>Journal of Alloys and Compounds</i> , 2001, 323-324, 389-391.	5.5	27
136	Influence of the nickel concentration on the magnetic properties of the cerium filled nickel substituted skutterudites. <i>Journal of Alloys and Compounds</i> , 2000, 299, 68-71.	5.5	20
137	Nickel-substituted skutterudites: synthesis, structural and electrical properties. <i>Journal of Alloys and Compounds</i> , 1999, 282, 58-63.	5.5	84
138	Synthèse par broyage mécanique de CeFe ₄ Sb ₁₂ et des composés substitués CeFe _{3,5} Ni _{0,5} Sb ₁₂ et CeFe ₄ Sb ₁₁ Te. <i>Comptes Rendus De L'Academie Des Sciences - Series IIc: Chemistry</i> , 1998, 1, 761-763.	0.1	3
139	Nickel Substituted Skutterudites: Synthesis and Physical Properties. <i>Materials Research Society Symposia Proceedings</i> , 1998, 545, 321.	0.1	2
140	Comparison between experimental XANES spectra and electronic structure calculations in the filled skutterudites Ce _y Fe _{4-x} Ni _x Sb ₁₂ . , 0, , .		0
141	Neutron study of rare earth filling and physical properties in R _y (Fe,Ni) ₄ Sb ₁₂ (with R=La) T_j ETQq1 1 0.784314 rgBT /Ov		