

Christophe Payen

List of Publications by Year in descending order

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2,832
citations

159358

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189595

50
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117
all docs

117
docs citations

117
times ranked

3270
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical Synthesis for the Control of Fe_3O_4 Nanoparticle Size. Morphology, Microstructure, and Magnetic Behavior. <i>Chemistry of Materials</i> , 1999, 11, 141-147.	3.2	330
2	Preparation, Structure, and Magnetic Properties of Copper(II) Phosphonates. $\beta\text{-Cu}(\text{CH}_3\text{PO}_3)_2$, an Original Three-Dimensional Structure with a Channel-Type Arrangement. <i>Inorganic Chemistry</i> , 1994, 33, 4885-4890.	1.9	167
3	Room-temperature crystal structure of the layered phase $\text{CuIn}_2\text{P}_2\text{S}_6$. <i>Journal of Alloys and Compounds</i> , 1995, 218, 157-164.	2.8	125
4	Paraelectric-Ferroelectric Transition in the Lamellar Thiophosphate CuInP_2S_6 . <i>Chemistry of Materials</i> , 1994, 6, 1575-1580.	3.2	120
5	Synthesis, structure, and magnetic properties of a new lamellar iron phosphonate, $\text{Fe}(\text{C}_2\text{H}_5\text{PO}_3)_2 \cdot \text{H}_2\text{O}$. <i>Chemistry of Materials</i> , 1993, 5, 583-587.	3.2	93
6	Ionic conductivity in ferroic CuInP_2S_6 and CuCrP_2S_6 . <i>Ferroelectrics</i> , 1997, 196, 257-260.	0.3	84
7	Dynamic structure factor $[S(Q, \omega)]$ of the $S=1$ quasi-one-dimensional Heisenberg antiferromagnet: Neutron-scattering study on AgVP_2S_6 . <i>Physical Review Letters</i> , 1991, 67, 497-500.	2.9	70
8	Copper sublattice ordering in layered $\text{CuM}_2\text{P}_2\text{S}_6$ ($M=\text{In, Cr}$). <i>Journal of Alloys and Compounds</i> , 1999, 283, 122-127.	2.8	70
9	Nanocrystalline FeWO_4 as a pseudocapacitive electrode material for high volumetric energy density supercapacitors operated in an aqueous electrolyte. <i>Electrochemistry Communications</i> , 2015, 57, 61-64.	2.3	66
10	Synthesis, Structures, Magnetic Properties, and Phase Transition of Manganese(II) Divanadate: $\text{Mn}_2\text{V}_2\text{O}_7$. <i>Journal of Solid State Chemistry</i> , 1996, 121, 214-224.	1.4	64
11	Preparation and structure of copper(II) ethylphosphonate. Structural transition between its hydrated and dehydrated forms. <i>Inorganic Chemistry</i> , 1993, 32, 4617-4620.	1.9	60
12	On the Electrochemical Reactivity Mechanism of CoSb_3 vs. Lithium. <i>Journal of the Electrochemical Society</i> , 2003, 150, A732.	1.3	58
13	Trivalent Cation Substitution Effect into Layered Double Hydroxides $\text{Co}_2\text{Fe}_y\text{Al}_{1-y}(\text{OH})_6\text{Cl} \cdot n\text{H}_2\text{O}$: Study of the Local Order. <i>Journal of Solid State Chemistry</i> , 2002, 167, 508-516.	1.4	57
14	Adaptable Thermo-chromism in the $\text{CuMo}_4\text{O}_{13}$ Series ($0 < x < 0.1$): A Behavior Related to a First-Order Phase Transition with a Transition Temperature Depending on x . <i>Inorganic Chemistry</i> , 2007, 46, 10200-10207.	1.9	57
15	Frustrated magnetism in the $S = 1$ Kagomé lattice $\text{BaNi}_3(\text{OH})_2(\text{VO}_4)_2$. <i>Chemical Communications</i> , 2012, 48, 64-66.	2.2	53
16	Polypyrrole coated magnetite nanoparticles from water based nanofluids. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 245002.	1.3	51
17	Syntheses, Structural Analyses, and Unusual Magnetic Properties of $\text{Ba}_2\text{CoSi}_2\text{O}_7$ and $\text{BaCo}_2\text{Si}_2\text{O}_7$. <i>Inorganic Chemistry</i> , 1996, 35, 3492-3497.	1.9	49
18	Copper ordering in lamellar $\text{CuM}_2\text{P}_2\text{S}_6$ ($M = \text{Cr, In}$): Transition to an antiferroelectric or ferroelectric phase. <i>Ferroelectrics</i> , 1996, 185, 135-138.	0.3	46

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19	Effect of Nonmagnetic Substituents Mg and Zn on the Phase Competition in the Multiferroic Antiferromagnet MnWO_4 . Chemistry of Materials, 2009, 21, 5203-5214.	3.2	45
20	Single Ground State of the Quantum Antiferromagnet $\text{Ba}_3\text{Cu}_2\text{Sb}_2\text{O}_{14}$. Physical Review Letters, 2012, 109, 117203.	3.2	41
21	Low-temperature neutron powder diffraction study of copper chromium thiophosphate (CuCrP_2S_6): observation of an ordered, antipolar copper sublattice. Chemistry of Materials, 1993, 5, 758-760.	1.4	41
22	Synthesis and Structure of $\text{NaMn}_3(\text{PO}_4)(\text{HPO}_4)_2$, an Unoxidized Variant of the Alluaudite Structure Type. Journal of Solid State Chemistry, 1995, 115, 240-246.	2.6	41
23	Cationic ordering and second-staging structures in copper-chromium and zinc-chromium layered double hydroxides. Applied Clay Science, 2005, 28, 111-120.	1.1	39
24	Gapless quantum spin liquid ground state in the spin-1 antiferromagnet 6HB-O_9 . Physical Review B, 2016, 93, .	1.4	37
25	On CuCrP_2S_6 : Copper Disorder, Stacking Distortions, and Magnetic Ordering. Journal of Solid State Chemistry, 1995, 116, 208-210.	1.1	35
26	Evidence for a spinon Fermi surface in the triangular quantum spin liquid $\text{Ba}_3\text{Cu}_2\text{Sb}_2\text{O}_{14}$. Physical Review B, 2017, 95, .	0.8	34
27	Structure, morphology and magnetic properties of Fe@Au core-shell nanoparticles. Surface Science, 2007, 601, 4352-4357.	1.1	34
28	Magnetic structure and ferroelectric polarization of MnWO_4 by density functional calculations and classical spin analysis. Physical Review B, 2009, 80, .	3.2	33
29	Increasing the Phase-Transition Temperatures in Spin-Frustrated Multiferroic MnWO_4 by Mo Doping. Chemistry of Materials, 2012, 24, 353-360.	3.2	32
30	Synthesis and structure of chromium antimony triselenide (CrSbSe_3): a pseudo-one-dimensional ferromagnet. Chemistry of Materials, 1993, 5, 237-240.	6.6	32
31	DFT-NMR Investigation and ^{51}V 3QMAS Experiments for Probing Surface OH Ligands and the Hydrogen-Bond Network in a Polyoxovanadate Cluster: The Case of $\text{Cs}_4\text{[H}_2\text{V}_{10}\text{O}_{28}] \cdot 4\text{H}_2\text{O}$. Journal of the American Chemical Society, 2010, 132, 4653-4668.	1.0	29
32	A new family of 2D antiferromagnets: the layered phosphonates $\text{MII}(\text{RPO}_3) \cdot \text{H}_2\text{O}$; $\text{M} \rightarrow \text{Mn, Fe, Co, Ni}$; $\text{R} = \text{alkyl, phenyl}$. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 1719-1720.	1.2	27
33	First-Principles Calculations within Periodic Boundary Conditions of the NMR Shielding Tensor for a Transition Metal Nucleus in a Solid State System: The Example of ^{51}V in AlVO_4 . Journal of Physical Chemistry B, 2006, 110, 21403-21407.	3.2	27
34	On the Cyclability of the Thermo-chromism in CuMoO_4 and Its Tungsten Derivatives $\text{CuMo}_x\text{W}_{1-x}\text{O}_4$ ($x < 0.12$). Chemistry of Materials, 2008, 20, 2075-2077.	1.0	25
35	New manganese pyrophosphates: The syntheses, crystallographic characterizations and magnetic properties of $\text{BaMn}_2\text{P}_2\text{O}_7$ and $\text{CaMn}_2\text{P}_2\text{O}_7$. Polyhedron, 1995, 14, 3473-3480.	1.9	25
36	$\text{Cu}_4(\text{AsO}_4)_2(\text{O})$: A New Copper Arsenate with Unusual Low Temperature Magnetic Properties. Inorganic Chemistry, 1995, 34, 5397-5398.		

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37	Incorporation of Jahnâ€“Teller Cu ²⁺ Ions into Magnetolectric Multiferroic MnWO ₄ : Structural, Magnetic, and Dielectric Permittivity Properties of Mn ^{1â€“} Cu ²⁺ WO ₄ (\hat{x} 0.25). Inorganic Chemistry, 2015, 54, 10623-10631.	1.9	24
38	Comparative study of coreâ€“shell iron/iron oxide gold covered magnetic nanoparticles obtained in different conditions. Journal of Nanoparticle Research, 2011, 13, 6181-6192.	0.8	23
39	Spin dynamics, short range order, and spin freezing in $Y_{1-x}Mn_xO_{2.5}$ $Y_{1-x}Mn_xO_{2.5}$	1.1	22
40	Neutron Spin-Echo Investigation of Slow Spin Dynamics in KagomÃ©-Bilayer Frustrated Magnets as Evidence for Phonon Assisted Relaxation in SrCr ₉ Ga ₁₂ As ₉ O ₁₉ . Physical Review Letters, 2006, 97, 047203.	2.9	21
41	Process- and optoelectronic-control of NiOx thin films deposited by reactive high power impulse magnetron sputtering. Journal of Applied Physics, 2017, 121, .	1.1	21
42	Na ₃ Cr ₂ P ₃ S ₁₂ and K ₃ Cr ₂ P ₃ S ₁₂ : Two New One-Dimensional Thiophosphate Compounds with a Novel Structure. Journal of Solid State Chemistry, 2001, 162, 195-203.	1.4	19
43	BaCo ₂ Si ₂ O ₇ : A new one-dimensional antiferromagnet based on chains of oxide bridged CoO ₄ tetrahedra. Polyhedron, 1993, 12, 2075-2077.	1.0	18
44	Evidence of quantum criticality in the doped Haldane system Y ₂ BaNiO ₅ . Physical Review B, 2000, 62, 2998-3001.	1.1	18
45	Polarized neutron scattering study of the kagome antiferromagnet SrCr ₈ Ga ₄ O ₁₉ . Physica B: Condensed Matter, 1999, 267-268, 139-141.	1.3	17
46	Synthesis and characterization of the coreâ€“shell Au covered LSMO manganite magnetic nanoparticles. Synthetic Metals, 2010, 160, 1692-1698.	2.1	17
47	One-Dimensional Heisenberg Antiferromagnet with Spin S = 3/2. Experiments on AgCrP ₂ S ₆ . Europhysics Letters, 1993, 21, 623-628.	0.7	16
48	Pressure-induced phase transition in ferroelectric CuInP ₂ S ₆ . Solid State Communications, 1998, 108, 43-47.	0.9	16
49	Unveiling Pseudocapacitive Charge Storage Behavior in FeWO ₄ Electrode Material by Operando Xâ€“ray Absorption Spectroscopy. Small, 2020, 16, e2002855.	5.2	16
50	Spin correlations in the pyrochlore slab compounds Ba ₂ Sn ₂ Ga ₁₀ P ₇ ZnCr ₇ P ₂ O ₂₂ . Journal of Physics Condensed Matter, 2004, 16, S835-S842.	0.7	15
51	A new mixed metal titanate: The synthesis and characterization of Ba ₂ Fe ₂ Ti ₄ O ₁₃ . Polyhedron, 1996, 15, 2567-2571.	1.0	14
52	Spin freezing in the kagomÃ© system SrCr ₈ Ga ₄ O ₁₉ â€“ high resolution study of the elastic and low-energy dynamic responses. Physica B: Condensed Matter, 1999, 266, 104-107.	1.3	14
53	Pair Distribution Function and Density Functional Theory Analyses of Hydrogen Trapping by β -MnO ₂ . Inorganic Chemistry, 2015, 54, 1194-1196.	1.9	14
54	Cool-SPS stabilization and sintering of thermally fragile, potentially magnetoelectric, NH ₄ FeP ₂ O ₇ . Ceramics International, 2019, 45, 9674-9678.	2.3	13

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55	Novel structural arrangement for divalent metal phosphonates: synthesis of tert-butylphosphonates and structure of $\text{Co}[(\text{CH}_3)_3\text{CPO}_3]\cdot\text{H}_2\text{O}$. <i>Journal of Materials Chemistry</i> , 1994, 4, 1319-1323.	6.7	12
56	Nanocomposite materials consisting of alternating layers of molybdenum disulfide and cobalt or nickel hydroxides: Magnetic characterization. <i>Solid State Communications</i> , 1997, 102, 419-423.	0.9	12
57	Temperature dependence of the spin dynamics in the strongly frustrated antiferromagnet $\text{SrCr}_9\text{Ga}_{12}\text{As}_9\text{O}_{19}$ (SCGO). <i>Physica B: Condensed Matter</i> , 2000, 284-288, 1371-1372.	1.3	12
58	Room temperature synthesis study of highly disordered $\alpha\text{-Ni}_2\text{P}_2\text{S}_6$. <i>Journal of Non-Crystalline Solids</i> , 1993, 160, 1-17.	1.5	11
59	Quasi-1D antiferromagnets with $S = 1$ and : The isostructural compounds AgVP_2S_6 and AgCrP_2S_6 . <i>Physica B: Condensed Matter</i> , 1995, 213-214, 170-172.	1.3	11
60	Phonon control of magnetic relaxation in the pyrochlore slab compounds SrCr_2S_7 . <i>Physical Review B</i> , 2010, 81, .	1.1	11
61	A new high pressure form of $\text{Ba}_3\text{NiSb}_2\text{O}_9$. <i>Journal of Solid State Chemistry</i> , 2016, 237, 166-173.	1.4	11
62	Powder and single crystal susceptibility of the quasi-1D Heisenberg antiferromagnetic chain compounds AgVP_2S_6 ($S = 1$) and AgCrP_2S_6 ($S = 3/2$). <i>Journal of Magnetism and Magnetic Materials</i> , 1990, 84, 95-101.	1.0	10
63	Static and dynamic properties of the quasi-1D Heisenberg antiferromagnets AgVP_2S_6 ($S=1$) and AgCrP_2S_6 ($S = 3/2$). <i>Journal of Magnetism and Magnetic Materials</i> , 1992, 104-107, 797-798.	1.0	10
64	The Synthesis, Crystal Structures and Magnetic Properties of $\text{Cu}_4(\text{AsO}_4)_2(\text{O})$ and $\text{Ba}_2\text{Cu}_7(\text{AsO}_4)_6$. <i>Chemische Berichte</i> , 1997, 130, 63-67.	0.2	10
65	Magnetic correlations in the $S=1$ quasi-one-dimensional Heisenberg antiferromagnet AgVP_2S_6 . <i>Physica B: Condensed Matter</i> , 1992, 180-181, 197-198.	1.3	9
66	Electronic structure of a hole doped oxide with a quasi-1D crystal structure $\text{Y}_2\text{S}_3(\text{Sr,Ca})_x\text{BaNiO}_5$. <i>Journal of Alloys and Compounds</i> , 2001, 317-318, 149-152.	2.8	9
67	A magnetisation and Mössbauer study of triazole $(\text{M})_2\text{M}_3\text{F}_5(\text{HtaZ})_2(\text{taZ})_2$ weberites ($M = \text{Fe, Co, Mn, Zn, Ga, V}$). <i>Dalton Transactions</i> , 2017, 46, 5352-5362.	1.6	9
68	Investigating the Cycling Stability of Fe_2WO_6 Pseudocapacitive Electrode Materials. <i>Nanomaterials</i> , 2021, 11, 1405.	1.9	9
69	Nanocomposites Built from MoS_2 and Various Metal-Containing Layers. <i>Molecular Crystals and Liquid Crystals</i> , 1998, 311, 377-382.	0.3	8
70	Random interactions and spin-glass thermodynamic transition in the hole-doped Haldane system $\text{Y}_2\text{S}_3\text{Ca}_x\text{BaNiO}_5$. <i>Physical Review B</i> , 2001, 63, .	1.1	8
71	Phase transitions and magnetic structures in $\text{MnW}_3\text{Mo}_4\text{O}_{20}$ compounds ($x = 0.2$). <i>Journal of Physics Condensed Matter</i> , 2016, 28, 336003.	1.1	8
72	Copper-Substituted NiTiO_3 Ilmenite-Type Materials for Oxygen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 31038-31048.	4.0	8

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73	Finite segments in quasi-1D Heisenberg antiferromagnets: comparison of the isostructural systems AgVP2S6 (S = 1) and AgCrP2S6 (S =). Journal of Magnetism and Magnetic Materials, 1995, 140-144, 1677-1678.	1.0	7
74	Persistent Type-II Multiferroicity in Nanostructured MnWO ₄ Ceramics. Chemistry of Materials, 2016, 28, 7582-7585.	3.2	7
75	Finite segments, "free spins" and random exchange in spin S=1 quasi one-dimensional antiferromagnets. Solid State Communications, 1993, 85, 597-599.	0.9	6
76	A New Mixed-Metal Titanate. The Synthesis and Characterization of Ba ₂ NiTi ₅ O ₁₃ . Chemistry of Materials, 1995, 7, 2168-2170.	3.2	6
77	Anomalous spectral weight in photoemission spectra of the hole-doped Haldane chain Y _{2-x} Sr _x BaNiO ₅ . Physical Review B, 2003, 67, .	1.1	6
78	Low-temperature relaxation in kagome bilayer antiferromagnets. Journal of Physics Condensed Matter, 2007, 19, 145254.	0.7	6
79	Strong magnetic exchange and frustrated ferrimagnetic order in a weberite-type inorganic-organic hybrid fluoride. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180224.	1.6	6
80	High-resolution neutron study of the effects of magnetic dilution in the strongly frustrated system SrCr ₈ Ga ₁₂ O ₁₉ . Canadian Journal of Physics, 2001, 79, 1401-1407.	0.4	6
81	A new manganese ortho-arsenate. The synthesis, structure and magnetic properties of Ba ₂ Mn(AsO ₄) ₂ . Polyhedron, 1996, 15, 1235-1239.	1.0	5
82	Evidence of Wolframite-Type Structure in Ultrasmall Nanocrystals with a Targeted Composition MnWO ₄ . Inorganic Chemistry, 2019, 58, 7822-7827.	1.9	5
83	Spin configurations in a kagom $\frac{1}{2}$ -based frustrated antiferromagnet: analysis of dynamic disorder by the reverse Monte Carlo method. Applied Physics A: Materials Science and Processing, 2002, 74, s883-s885.	1.1	4
84	Composites between Perovskite and Layered Co-Based Oxides for Modification of the Thermoelectric Efficiency. Materials, 2021, 14, 7019.	1.3	4
85	Nanocrystalline BaCo ₃ (VO ₄) ₂ (OH) ₂ with a kagome lattice of Co(II) ions: synthesis, crystal structure and magnetic properties. Journal of Materials Chemistry C, 2022, 10, 3287-3291.	2.7	4
86	The Synthesis, Structural Analysis and Magnetic Properties of a New Mixed Metal Ferrite Ba ₃ Fe ₂₄ Ti ₇ O ₅₃ . Chemische Berichte, 1996, 129, 1441-1445.	0.2	3
87	Low-energy response in the spin-ladder compound (VO) ₂ P ₂ O ₇ . Physica B: Condensed Matter, 1997, 234-236, 895-896.	1.3	3
88	Spin fluctuations in the pyrochlore slab compound Ba ₂ Sn ₂ Ga ₃ ZnCr ₇ O ₂₂ . Physica B: Condensed Matter, 2004, 350, E289-E291.	1.3	3
89	Mössbauer effect at ¹¹⁹ Sn ⁴⁺ nuclei in fine crystalline MnO. Russian Journal of Inorganic Chemistry, 2007, 52, 1262-1268.	0.3	3
90	Neutron and X-Ray Diffraction Study of the SrCr ₈ Ga ₄ O ₁₉ Kagome Compound Synthesized by Citrate Route. Materials Science Forum, 2000, 321-324, 828-833.	0.3	2

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91	Unconventional antiferromagnetic correlations of the doped Haldane gapsystem $Y_2BaNi_{1-x}Zn_xO_5$. European Physical Journal B, 2002, 25, 39-51.	0.6	2
92	Dielectric Study of Unexpected Transitions in Multiferroic $Mn_{1-x}(Mg,Zn)_xWO_4$ Ceramics. Ferroelectrics, 2012, 428, 94-100.	0.3	2
93	High-resolution neutron study of the effects of magnetic dilution in the strongly frustrated system $SrCr_xGa_{12-x}O_{19}$. Canadian Journal of Physics, 2001, 79, 1401-1407.	0.4	1
94	Charge-doped nickel oxide, $Y_{1.90}Ca_{0.10}BaNiO_5$. Acta Crystallographica Section E: Structure Reports Online, 2001, 57, i70-i71.	0.2	1
95	Magnetoelastic polarons in the hole-doped quasi-one-dimensional model system $Y_2\hat{A}^xCa_xBaNiO_5$. Physical Review B, 2004, 70, .	1.1	1
96	Pseudocapacitive $FeWO_4$ Electrode: From Charge Storage Mechanism to Practical Use in Asymmetric Cell. ECS Meeting Abstracts, 2016, MA2016-02, 937-937.	0.0	1
97	Synthesis, Structure and Magnetic Properties of Some New Metal (II) Phosphonates: Layered $Fe(C_2H_5PO_3)_2 \cdot H_2O$ and $\hat{I}^\pm-Cu(C_2H_5PO_3)_2 \cdot H_2O$ and $\hat{I}^\pm-Cu(C_2H_5PO_3)_2 \cdot H_2O$, Tubular $\hat{I}^2-Cu(CH_3PO_3)_2$. Materials Science Forum, 1994, 152-153, 365-370.	0.3	0
98	Synthesis, Structure and Magnetic Properties of Some New Metal(II) Phosphonates: Layered $Fe(C_2H_5PO_3)_2 \cdot H_2O$, $\hat{I}^\pm-Cu(C_2H_5PO_3)_2 \cdot H_2O$ and $Co(t-C_4H_9PO_3)_2 \cdot H_2O$, Tubular $\hat{I}^2-Cu(CH_3PO_3)_2$. Materials Research Society Symposia Proceedings, 1994, 346, 967.	0.1	0
99	Photoemission spectroscopy study of the hole-doped Haldane chain $Y_2\hat{A}^xSr_xBaNiO_5$. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 242-247.	0.6	0
100	Phonon-assisted relaxation in a frustrated antiferromagnet. Journal of Magnetism and Magnetic Materials, 2007, 310, 1325-1327.	1.0	0
101	$FeWO_4$ As Electrode Material for High Volumetric Capacitance Supercapacitors. ECS Meeting Abstracts, 2015, .	0.0	0