

# Andrea Sanson

## List of Publications by Year in descending order

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90  
papers

2,333  
citations

212478

28  
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274796

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g-index

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all docs

90  
docs citations

90  
times ranked

2662  
citing authors

#	ARTICLE	IF	CITATIONS
1	Large negative thermal expansion in GdFe(CN) <sub>6</sub> driven by unusual low-frequency modes. Chinese Chemical Letters, 2023, 34, 107564.	4.8	9
2	Tuning thermal expansion from strong negative to zero to positive in Cu <sub>2</sub> -Zn P <sub>2</sub> O <sub>7</sub> solid solutions. Scripta Materialia, 2022, 207, 114289.	2.6	6
3	The role of average atomic volume in predicting negative thermal expansion: The case of REFe(CN) <sub>6</sub> . Science China Materials, 2022, 65, 553-557.	3.5	19
4	Optimized negative thermal expansion property in low-cost Mg <sub>2</sub> P <sub>2</sub> O <sub>7</sub> -based bulk material. Results in Physics, 2022, 35, 105415.	2.0	12
5	Understanding the role of guest ions in the control of thermal expansion of FeFe(CN) <sub>6</sub> . Results in Physics, 2022, 36, 105410.	2.0	3
6	Isotropic negative thermal expansion and its mechanism in tetracyanidoborate salt CuB(CN) <sub>4</sub> . Chinese Physics B, 2022, 31, 066501.	0.7	1
7	Understanding Large Negative Thermal Expansion of NdFe(CN) <sub>6</sub> through the Electronic Structure and Lattice Dynamics. Inorganic Chemistry, 2022, 61, 7813-7819.	1.9	2
8	Understanding Negative Thermal Expansion of Zn <sub>2</sub> GeO <sub>4</sub> through Local Structure and Vibrational Dynamics. Inorganic Chemistry, 2021, 60, 1499-1505.	1.9	18
9	Strong Negative Thermal Expansion of Cu <sub>2</sub> PVO <sub>7</sub> in a Wide Temperature Range. Chemistry of Materials, 2021, 33, 1321-1329.	3.2	19
10	Negative thermal expansion in YbMn <sub>2</sub> Ge <sub>2</sub> induced by the dual effect of magnetism and valence transition. Npj Quantum Materials, 2021, 6, .	1.8	14
11	High Thermoelectric Performance through Crystal Symmetry Enhancement in Triply Doped Diamondoid Compound Cu <sub>2</sub> SnSe <sub>3</sub> . Advanced Energy Materials, 2021, 11, 2100661.	10.2	39
12	p-type doping of Ge by Al ion implantation and pulsed laser melting. Applied Surface Science, 2020, 509, 145230.	3.1	5
13	Effect of H <sub>2</sub> O Molecules on Thermal Expansion of TiCo(CN) <sub>6</sub> . Inorganic Chemistry, 2020, 59, 14852-14855.	1.9	27
14	Negative and zero thermal expansion in $\text{[Cu}_{2-x}\text{Zn}_x\text{V}_2\text{O}_7]$ solid solutions. Chemical Communications, 2020, 56, 10666-10669.	2.2	19
15	Interplay between local structure, vibrational and electronic properties on CuO under pressure. Physical Chemistry Chemical Physics, 2020, 22, 24299-24309.	1.3	3
16	Large isotropic negative thermal expansion in water-free Prussian blue analogues of ScCo(CN) <sub>6</sub> . Scripta Materialia, 2020, 187, 119-124.	2.6	32
17	Discovering Large Isotropic Negative Thermal Expansion in Framework Compound AgB(CN) <sub>4</sub> via the Concept of Average Atomic Volume. Journal of the American Chemical Society, 2020, 142, 6935-6939.	6.6	97
18	Strong Negative Thermal Expansion in a Low-Cost and Facile Oxide of Cu <sub>2</sub> P <sub>2</sub> O <sub>7</sub> . Journal of the American Chemical Society, 2020, 142, 3088-3093.	6.6	59

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19	Large Negative Thermal Expansion Induced by Synergistic Effects of Ferroelectrostriction and Spin Crossover in PbTiO <sub>3</sub> -Based Perovskites. Chemistry of Materials, 2019, 31, 1296-1303.	3.2	29
20	On the switching between negative and positive thermal expansion in framework materials. Materials Research Letters, 2019, 7, 412-417.	4.1	28
21	Editorial: Towards the Control of Thermal Expansion: From 1996 to Today. Frontiers in Chemistry, 2019, 7, 284.	1.8	13
22	Negative thermal expansion in cubic FeFe(CN) <sub>6</sub> Prussian blue analogues. Dalton Transactions, 2019, 48, 3658-3663.	1.6	32
23	Mineralogical investigations using XRD, XRF, and Raman spectroscopy in a combined approach. Journal of Raman Spectroscopy, 2018, 49, 1023-1030.	1.2	20
24	Localized Symmetry Breaking for Tuning Thermal Expansion in ScF <sub>3</sub> Nanoscale Frameworks. Journal of the American Chemical Society, 2018, 140, 4477-4480.	6.6	44
25	Tunable Thermal Expansion from Negative, Zero, to Positive in Cubic Prussian Blue Analogues of GaFe(CN) <sub>6</sub> . Inorganic Chemistry, 2018, 57, 14027-14030.	1.9	28
26	Low-Frequency Phonon Driven Negative Thermal Expansion in Cubic GaFe(CN) <sub>6</sub> Prussian Blue Analogues. Inorganic Chemistry, 2018, 57, 10918-10924.	1.9	32
27	Formation of F <sub>6</sub> V <sub>2</sub> complexes in F-implanted Ge determined by x-ray absorption near edge structure spectroscopy. Materials Science in Semiconductor Processing, 2017, 62, 205-208.	1.9	2
28	Structure and Vibrational Dynamics of NASICON-Type LiTi <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> . Journal of Physical Chemistry C, 2017, 121, 3697-3706.	1.5	42
29	Tunable thermal expansion in framework materials through redox intercalation. Nature Communications, 2017, 8, 14441.	5.8	95
30	Switching Between Giant Positive and Negative Thermal Expansions of a YFe(CN) <sub>6</sub> -based Prussian Blue Analogue Induced by Guest Species. Angewandte Chemie - International Edition, 2017, 56, 9023-9028.	7.2	101
31	Isotropic Zero Thermal Expansion and Local Vibrational Dynamics in (Sc,Fe)F <sub>3</sub> . Inorganic Chemistry, 2017, 56, 10840-10843.	1.9	16
32	Switching Between Giant Positive and Negative Thermal Expansions of a YFe(CN) <sub>6</sub> -based Prussian Blue Analogue Induced by Guest Species. Angewandte Chemie, 2017, 129, 9151-9156.	1.6	5
33	Pectins, Hemicelluloses and Celluloses Show Specific Dynamics in the Internal and External Surfaces of Grape Berry Skin During Ripening. Plant and Cell Physiology, 2016, 57, 1332-1349.	1.5	78
34	Thermal and magnetic anomalies of Fe <sup>2+</sup> -iron: an exploration by extended x-ray absorption fine structure spectroscopy and synchrotron x-ray diffraction. Journal of Physics Condensed Matter, 2016, 28, 355401.	0.7	5
35	Local structure and spin transition in Fe <sub>2</sub> O <sub>3</sub> hematite at high pressure. Physical Review B, 2016, 94, .	1.1	33
36	Lattice dynamics and anharmonicity of CaZrF <sub>6</sub> from Raman spectroscopy and ab initio calculations. Materials Chemistry and Physics, 2016, 180, 213-218.	2.0	28

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37	Displacive phase-transition of cuprite Ag <sub>2</sub> O revealed by extended x-ray absorption fine structure. Journal of Physics and Chemistry of Solids, 2016, 95, 114-118.	1.9	2
38	New Insights into the Negative Thermal Expansion: Direct Experimental Evidence for the "Guitar-String" Effect in Cubic ScF <sub>3</sub> . Journal of the American Chemical Society, 2016, 138, 8320-8323.	6.6	115
39	High-Curie Temperature Ferromagnetism in (Sc,Fe)F <sub>3</sub> Fluorides and its Dependence on Chemical Valence. Advanced Materials, 2015, 27, 4592-4596.	11.1	25
40	Vibrational dynamics of rutile-type GeO <sub>2</sub> from micro-Raman spectroscopy experiments and first-principles calculations. Europhysics Letters, 2015, 109, 26007.	0.7	4
41	Polaronic deformation at the Fe site in Fe:LiNbO <sub>3</sub> . Physical Review B, 2015, 91, .	1.1	33
42	A non-destructive approach for doping profiles characterization by micro-Raman spectroscopy: the case of B-implanted Ge. Journal of Raman Spectroscopy, 2014, 45, 197-201.	1.2	4
43	Local vibrational dynamics of hematite (α-Fe <sub>2</sub> O <sub>3</sub> ) studied by extended x-ray absorption fine structure and molecular dynamics. Journal of Chemical Physics, 2014, 140, 224504.	1.2	17
44	Toward an Understanding of the Local Origin of Negative Thermal Expansion in ZrW <sub>2</sub> O <sub>8</sub> : Limits and Inconsistencies of the Tent and Rigid Unit Mode Models. Chemistry of Materials, 2014, 26, 3716-3720.	3.2	59
45	Polarized micro-Raman spectroscopy and <i>ab initio</i> phonon modes calculations of LuPO <sub>4</sub> . Journal of Raman Spectroscopy, 2013, 44, 1411-1415.	1.2	7
46	Comment on "On the discrimination between magnetite and maghemite by XANES measurements in fluorescence mode". Measurement Science and Technology, 2013, 24, 118001.	1.4	1
47	A multivariate statistical analysis approach to highlight molecular processes in plant cell walls through ATR FT-IR microspectroscopy: The role of the α-expansin PhEXPA1 in Petunia hybrida. Vibrational Spectroscopy, 2013, 65, 36-43.	1.2	19
48	Investigation of germanium implanted with aluminum by multi-laser micro-Raman spectroscopy. Thin Solid Films, 2013, 541, 76-78.	0.8	8
49	Study of carrier concentration profiles in Al-implanted Ge by micro-Raman spectroscopy under different excitation wavelengths. Journal of Raman Spectroscopy, 2013, 44, 665-669.	1.2	10
50	Local Structural Modifications versus Transport Properties in AgI-Doped Silver-Borate Glasses: A Detailed X-ray Absorption Investigation. Journal of Physical Chemistry C, 2013, 117, 6081-6087.	1.5	6
51	Non-Conventional Characterization of Electrically Active Dopant Profiles in Al-Implanted Ge by Depth-Resolved Micro-Raman Spectroscopy. Applied Physics Express, 2013, 6, 042404.	1.1	5
52	Vibrational dynamics of single-crystal YVO <sub>4</sub> studied by polarized micro-Raman spectroscopy and <i>ab initio</i> calculations. Physical Review B, 2012, 86, .	1.1	21
53	Bond thermal expansion and effective pair potential in crystals: the case of cadmium selenide. Journal of Physics Condensed Matter, 2011, 23, 315401.	0.7	6
54	Overexpression of PhEXPA1 increases cell size, modifies cell wall polymer composition and affects the timing of axillary meristem development in Petunia hybrida. New Phytologist, 2011, 191, 662-677.	3.5	58

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55	A first-principles study of vibrational modes in Cu <sub>2</sub> O and Ag <sub>2</sub> O crystals. Solid State Communications, 2011, 151, 1452-1454. Vibrational dynamics of YPO <sub>4</sub> and ScPO <sub>4</sub> single crystals: An integrated study by polarized Raman scattering experiments and simulations. Physical Review B, 2010, 81, .	0.9	21
56	ScPO <sub>4</sub> single crystals: An integrated study by polarized Raman scattering experiments and simulations. Physical Review B, 2010, 81, .	1.1	28
57	Isotopic effect on the local dynamics of crystalline germanium. Solid State Sciences, 2010, 12, 1988-1992.	1.5	1
58	Vibrational Dynamics Of YPO <sub>4</sub> And ScPO <sub>4</sub> Single Crystals: An Integrated Study By Polarized Raman Scattering Experiments And Simulations. , 2010, , .		1
59	Local dynamical properties of crystalline germanium and their effects in extended x-ray absorption fine structure. Physical Review B, 2010, 81, .	1.1	15
60	Vibrational dynamics of anatase TiO <sub>2</sub> studied by polarized Raman spectroscopy and <i>ab initio</i> calculations. Physical Review B, 2010, 81, .		
61	fine structure study of CuScO <sub>4</sub> and CuLaO <sub>4</sub> by polarized Raman spectroscopy and <i>ab initio</i> calculations. Physical Review B, 2009, 79, .	1.1	40
62	Tension effect in local dynamics of cuprite structures. Solid State Sciences, 2009, 11, 1489-1493.	1.5	8
63	On the neglecting of higher-order cumulants in EXAFS data analysis. Journal of Synchrotron Radiation, 2009, 16, 864-868.	1.0	16
64	Negative thermal expansion and local dynamics. Journal of Physics: Conference Series, 2009, 190, 012025.	0.3	4
65	On the Einstein model for EXAFS parallel and perpendicular mean-square relative displacements. Journal of Synchrotron Radiation, 2008, 15, 514-518.	1.0	16
66	EXAFS studies of negative thermal expansion materials. Physica Status Solidi (B): Basic Research, 2008, 245, 2497-2503.	0.7	14
67	Correlation Between I-Ag Distance and Ionic Conductivity in AgI Fast-Ion-Conducting Glasses. Physical Review Letters, 2008, 101, 155901.	2.9	36
68	Local study on the MoO <sub>4</sub> units in AgI-doped silver molybdate glasses. Journal of Non-Crystalline Solids, 2008, 354, 94-97.	1.5	16
69	Vibrational and structural investigations on adipose tissues. Philosophical Magazine, 2008, 88, 3953-3959.	0.7	6
70	Isotopic Effect In Extended X-Ray-Absorption Fine Structure of Germanium. Physical Review Letters, 2008, 100, 055901.	2.9	38
71	Influence of temperature on the local structure around iodine in fast-ion-conducting AgI:Ag <sub>2</sub> MoO <sub>4</sub> glasses. New Journal of Physics, 2007, 9, 88-88.	1.2	17
72	Local lattice dynamics and negative thermal expansion in crystals. Journal of Physics: Conference Series, 2007, 92, 012153.	0.3	2

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73	Thermal behaviour of the local environment around iodine in fast-ion-conducting AgI-doped glasses. Philosophical Magazine, 2007, 87, 769-777.	0.7	8
74	Negative thermal expansion in CuCl: An extended x-ray absorption fine structure study. Physical Review B, 2007, 75, .	1.1	51
75	Negative thermal expansion and local dynamics in Cu <sub>2</sub> O and Ag <sub>2</sub> O. Physical Review B, 2006, 73, .	1.1	95
76	Local behaviour of negative thermal expansion materials. Nuclear Instruments & Methods in Physics Research B, 2006, 246, 180-183.	0.6	22
77	Negative thermal expansion in cuprite-type compounds: A combined synchrotron XRPD, EXAFS, and computational study of Cu <sub>2</sub> O and Ag <sub>2</sub> O. Journal of Physics and Chemistry of Solids, 2006, 67, 1918-1922.	1.9	24
78	XANES and EXAFS Modelling of Configurational Disorder in Silver Borate Glasses. Physica Scripta, 2005, , 149.	1.2	2
79	EXAFS and XRD Study of Local Dynamics in Cu <sub>2</sub> O and Ag <sub>2</sub> O. Physica Scripta, 2005, , 271.	1.2	3
80	EXAFS and Local Thermal Expansion. Physica Scripta, 2005, , 143.	1.2	0
81	EXAFS studies of lattice dynamics and thermal expansion. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3085-3088.	0.8	7
82	Extended x-ray-absorption fine-structure measurements of copper: Local dynamics, anharmonicity, and thermal expansion. Physical Review B, 2004, 70, .	1.1	111
83	The thermal behaviour of cuprite: An XRD-EXAFS combined approach. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 231-236.	0.6	35
84	EXAFS and local thermal expansion: The case of silver oxide. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 237-241.	0.6	6
85	Local thermal expansion in copper: Extended x-ray-absorption fine-structure measurements and path-integral Monte Carlo calculations. Physical Review B, 2003, 68, .	1.1	35
86	EXAFS studies of local thermal expansion. AIP Conference Proceedings, 2003, , .	0.3	0
87	Local Thermal Expansion in a Cuprite Structure: The Case of Ag <sub>2</sub> O. Physical Review Letters, 2002, 89, 025503.	2.9	56
88	On the cumulant analysis of EXAFS in crystalline solids. Journal of Synchrotron Radiation, 2001, 8, 1214-1220.	1.0	83
89	EXAFS spectroscopy: a powerful tool for the study of local vibrational dynamics. , 0, , .		5
90	Biaxial negative thermal expansion in Zn[N(CN) <sub>2</sub> ] <sub>2</sub> . Inorganic Chemistry Frontiers, 0, , .	3.0	0