

Sangen Zhao

List of Publications by Year in descending order

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105
papers

5,847
citations

76294

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79644

73
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all docs

114
docs citations

114
times ranked

2755
citing authors

#	ARTICLE	IF	CITATIONS
1	Beryllium-free $\text{Li}_4\text{Sr}(\text{BO}_3)_2$ for deep-ultraviolet nonlinear optical applications. <i>Nature Communications</i> , 2014, 5, 4019.	5.8	384
2	Deep-Ultraviolet Transparent Phosphates $\text{RbBa}_2(\text{PO}_3)_5$ and $\text{Rb}_2\text{Ba}_3(\text{P}_2\text{O}_7)_2$ Show Nonlinear Optical Activity from Condensation of $[\text{PO}_4]^{3-}$ Units. <i>Journal of the American Chemical Society</i> , 2014, 136, 8560-8563.	6.6	297
3	Beryllium-Free $\text{Rb}_3\text{Al}_3\text{B}_3\text{O}_{10}\text{F}$ with Reinforced Interlayer Bonding as a Deep-Ultraviolet Nonlinear Optical Crystal. <i>Journal of the American Chemical Society</i> , 2015, 137, 2207-2210.	6.6	237
4	Designing a Beryllium-Free Deep-Ultraviolet Nonlinear Optical Material without a Structural Instability Problem. <i>Journal of the American Chemical Society</i> , 2016, 138, 2961-2964.	6.6	220
5	Tailored Synthesis of a Nonlinear Optical Phosphate with a Short Absorption Edge. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4217-4221.	7.2	205
6	Non-Centrosymmetric $\text{RbNaMgP}_2\text{O}_7$ with Unprecedented Thermo-Induced Enhancement of Second Harmonic Generation. <i>Journal of the American Chemical Society</i> , 2018, 140, 1592-1595.	6.6	200
7	Bilayered Hybrid Perovskite Ferroelectric with Giant Two-Photon Absorption. <i>Journal of the American Chemical Society</i> , 2018, 140, 6806-6809.	6.6	185
8	Two Non- π -Conjugated Deep-UV Nonlinear Optical Sulfates. <i>Journal of the American Chemical Society</i> , 2019, 141, 3833-3837.	6.6	183
9	A Photoferroelectric Perovskite-Type Organometallic Halide with Exceptional Anisotropy of Bulk Photovoltaic Effects. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6545-6550.	7.2	175
10	The role of cations in second-order nonlinear optical materials based on π -conjugated $[\text{BO}_3]^{3-}$ groups. <i>Coordination Chemistry Reviews</i> , 2018, 366, 1-28.	9.5	145
11	Chiral Lead-Free Hybrid Perovskites for Self-Powered Circularly Polarized Light Detection. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8415-8418.	7.2	144
12	An Unprecedented Antimony(III) Borate with Strong Linear and Nonlinear Optical Responses. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7793-7796.	7.2	143
13	Alloying <i>n</i> -Butylamine into CsPbBr_3 To Give a Two-Dimensional Bilayered Perovskite Ferroelectric Material. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8140-8143.	7.2	135
14	Deep-Ultraviolet Transparent Cs_2LiPO_4 Exhibits an Unprecedented Second Harmonic Generation. <i>Chemistry of Materials</i> , 2016, 28, 7110-7116.	3.2	130
15	Construction of Interpenetrated Ruthenium Metal-Organic Frameworks as Stable Photocatalysts for CO_2 Reduction. <i>Inorganic Chemistry</i> , 2015, 54, 8375-8379.	1.9	115
16	Hierarchical metal-organic framework nanoflowers for effective CO_2 transformation driven by visible light. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15764-15768.	5.2	110
17	A New UV Nonlinear Optical Material $\text{CsZn}_2\text{B}_3\text{O}_7$: ZnO_4 Tetrahedra Double the Efficiency of Second-Harmonic Generation. <i>Inorganic Chemistry</i> , 2014, 53, 2521-2527.	1.9	98
18	Highly efficient white-light emission in a polar two-dimensional hybrid perovskite. <i>Chemical Communications</i> , 2018, 54, 4053-4056.	2.2	94

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19	Cooperation of Three Chromophores Generates the Water-Resistant Nitrate Nonlinear Optical Material $\text{Bi}_3\text{TeO}_6\text{OH}(\text{NO}_3)_2$. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 540-544.	7.2	91
20	Designing a Deep-UV Nonlinear Optical Fluorooxosilicophosphate. <i>Journal of the American Chemical Society</i> , 2020, 142, 6472-6476.	6.6	89
21	Broadband white-light emission with a high color rendering index in a two-dimensional organic-inorganic hybrid perovskite. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1171-1175.	2.7	86
22	Structure-property relationship in nonlinear optical materials with π -conjugated CO ₃ triangles. <i>Coordination Chemistry Reviews</i> , 2020, 407, 213152.	9.5	85
23	The role of dipole moment in determining the nonlinear optical behavior of materials: ab initio studies on quaternary molybdenum tellurite crystals. <i>Journal of Materials Chemistry C</i> , 2014, 2, 530-537.	2.7	81
24	A host-guest inclusion compound for reversible switching of quadratic nonlinear optical properties. <i>Chemical Communications</i> , 2015, 51, 2298-2300.	2.2	81
25	A Potential Sn-Based Hybrid Perovskite Ferroelectric Semiconductor. <i>Journal of the American Chemical Society</i> , 2020, 142, 1159-1163.	6.6	72
26	A combination of multiple chromophores enhances second-harmonic generation in a nonpolar noncentrosymmetric oxide: CdTeMoO_6 . <i>Journal of Materials Chemistry C</i> , 2013, 1, 2906.	2.7	67
27	$\text{Li}_8\text{NaRb}_3(\text{SO}_4)_6 \cdot 2\text{H}_2\text{O}$ as a new sulfate deep-ultraviolet nonlinear optical material. <i>Journal of Materials Chemistry C</i> , 2018, 6, 12240-12244.	2.7	66
28	Optical properties of the vacuum-ultraviolet nonlinear optical crystal BPO_4 . <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011, 28, 2236.	0.9	60
29	An Exceptional Peroxide Birefringent Material Resulting from π - π Interactions. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9414-9417.	7.2	60
30	A sequentially switchable molecular dielectric material tuned by the stepwise ordering in diisopropylammonium trifluoromethanesulfonate. <i>Journal of Materials Chemistry C</i> , 2014, 2, 2341-2345.	2.7	56
31	Strong Nonlinear-Optical Response in the Pyrophosphate $\text{CsLiCdP}_2\text{O}_7$ with a Short Cutoff Edge. <i>Inorganic Chemistry</i> , 2016, 55, 11626-11629.	1.9	55
32	A semi-conductive organic-inorganic hybrid emits pure white light with an ultrahigh color rendering index. <i>Journal of Materials Chemistry C</i> , 2017, 5, 4731-4735.	2.7	55
33	$\text{LiGaGe}_2\text{S}_6$: A Chalcogenide with Good Infrared Nonlinear Optical Performance and Low Melting Point. <i>Inorganic Chemistry</i> , 2017, 56, 13267-13273.	1.9	51
34	High-Performance Switching of Bulk Quadratic Nonlinear Optical Properties with Large Contrast in Polymer Films Based on Organic Hydrogen-Bonded Ferroelectrics. <i>Chemistry of Materials</i> , 2015, 27, 4493-4498.	3.2	49
35	A beryllium-free deep-UV nonlinear optical material $\text{CsNaMgP}_2\text{O}_7$ with honeycomb-like topological layers. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3910-3916.	2.7	48
36	Recent Development of Non- π -Conjugated Deep Ultraviolet Nonlinear Optical Materials. <i>Chemistry of Materials</i> , 2022, 34, 5-28.	3.2	47

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37	A Nonlinear Optical Switchable Sulfate of Ultrawide Bandgap. <i>CCS Chemistry</i> , 2021, 3, 2298-2306.	4.6	46
38	K3YB6O12: A new nonlinear optical crystal with a short UV cutoff edge. <i>Materials Research Bulletin</i> , 2012, 47, 3810-3813.	2.7	45
39	Reversible phase transition driven by order-disorder transformations of metal-halide moieties in [(C ₆ H ₁₄ NH ₂) ₂] ₂ ·CuBr ₄ . <i>Journal of Materials Chemistry C</i> , 2016, 4, 7537-7540.	2.7	44
40	An organic-inorganic hybrid co-crystal complex as a high-performance solid-state nonlinear optical switch. <i>Journal of Materials Chemistry C</i> , 2016, 4, 266-271.	2.7	43
41	Nonpolar Na ₁₀ Cd(NO ₃) ₄ (SO ₃ S) ₄ Exhibits a Large Second-Harmonic Generation. <i>CCS Chemistry</i> , 2022, 4, 526-531.	4.6	43
42	A New KBBF-Family Nonlinear Optical Material with Strong Interlayer Bonding. <i>Crystal Growth and Design</i> , 2017, 17, 4422-4427.	1.4	42
43	ABX ₃ -Type Organic-Inorganic Hybrid Phase Transition Material: 1-Pentyl-3-methylimidazolium Tribromoplumbate. <i>Inorganic Chemistry</i> , 2015, 54, 7136-7138.	1.9	41
44	K6Li3Sc2B15O30: A new nonlinear optical crystal with a short absorption edge. <i>CrystEngComm</i> , 2012, 14, 5209.	1.3	40
45	ZnTeMoO6: a strong second-harmonic generation material originating from three types of asymmetric building units. <i>RSC Advances</i> , 2013, 3, 14000.	1.7	39
46	A Photoferroelectric Perovskite-Type Organometallic Halide with Exceptional Anisotropy of Bulk Photovoltaic Effects. <i>Angewandte Chemie</i> , 2016, 128, 6655-6660.	1.6	38
47	Switchable dielectric behaviour associated with above room-temperature phase transition in N-isopropylbenzylammonium dichloroacetate (N-IPBADC). <i>Journal of Materials Chemistry C</i> , 2014, 2, 6134-6139.	2.7	37
48	A Deep-UV Nonlinear Optical Borosulfate with Incommensurate Modulations. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11457-11463.	7.2	37
49	A Hybrid Halide Perovskite Birefringent Crystal. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	37
50	An Unprecedented Antimony(III) Borate with Strong Linear and Nonlinear Optical Responses. <i>Angewandte Chemie</i> , 2020, 132, 7867-7870.	1.6	35
51	An Antimony(III) Fluoride Oxalate with Large Birefringence. <i>Chemistry - A European Journal</i> , 2021, 27, 4557-4560.	1.7	34
52	Exceptional bi-step switching of quadratic nonlinear optical properties in a one-dimensional channel compound. <i>Chemical Communications</i> , 2017, 53, 7669-7672.	2.2	27
53	Rational Design and Syntheses of Molecular Phase Transition Crystal Materials. <i>Crystal Growth and Design</i> , 2016, 16, 6685-6695.	1.4	26
54	Broad-Band-Emissive Organic-Inorganic Hybrid Semiconducting Nanowires Based on an ABX ₃ -Type Chain Compound. <i>Inorganic Chemistry</i> , 2017, 56, 8776-8781.	1.9	26

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55	A Langbeinite-Type Yttrium Phosphate $\text{LiCs}_2\text{Y}_2(\text{PO}_4)_3$. <i>Inorganic Chemistry</i> , 2018, 57, 13087-13091.	1.9	26
56	Alloying <i>n</i> -Butylamine into CsPbBr_3 To Give a Two-Dimensional Bilayered Perovskite Ferroelectric Material. <i>Angewandte Chemie</i> , 2018, 130, 8272-8275.	1.6	26
57	$\text{KMg}_6(\text{P}_2\text{O}_7)_2\text{P}_3\text{O}_{10}$: A novel phosphate with two distinct anions. <i>Inorganic Chemistry Communication</i> , 2016, 66, 83-86.	1.8	23
58	Crystal Growth and Optical Properties of Beryllium-Free Nonlinear Optical Crystal $\text{K}_3\text{Ba}_3\text{Li}_2\text{Al}_4\text{B}_6\text{O}_{20}\text{F}$. <i>Crystal Growth and Design</i> , 2018, 18, 1168-1172.	1.4	23
59	Chiral Lead-Free Hybrid Perovskites for Self-Powered Circularly Polarized Light Detection. <i>Angewandte Chemie</i> , 2021, 133, 8496-8499.	1.6	23
60	Dynamic Entangled Framework Based on an Iridium-Organic Unit Showing Reversible Luminescence Turn-On Sensing. <i>Inorganic Chemistry</i> , 2015, 54, 8872-8874.	1.9	22
61	Nonlinear Optical Crystal $\text{Rb}_4\text{Sn}_3\text{Cl}_2\text{Br}_8$: Synthesis, Structure, and Characterization. <i>Crystal Growth and Design</i> , 2018, 18, 380-385.	1.4	22
62	Noncentrosymmetric $\text{K}_2\text{Mn}_3(\text{SO}_4)_3\text{F}_2 \cdot 4\text{H}_2\text{O}$ and $\text{Rb}_2\text{Mn}_3(\text{SO}_4)_3\text{F}_2 \cdot 2\text{H}_2\text{O}$ with pseudo-KTP structures. <i>Chinese Chemical Letters</i> , 2021, 32, 263-265.	4.8	22
63	Switchable Dielectric Phase Transition Induced by a Twisting Transformation in Diglycine Methanesulfonate. <i>Chemistry - an Asian Journal</i> , 2014, 9, 996-1000.	1.7	21
64	A new phase-matchable nonlinear optical silicate: $\text{Rb}_2\text{ZnSi}_3\text{O}_8$. <i>Journal of Materials Chemistry C</i> , 2017, 5, 11025-11029.	2.7	21
65	Reversible Phase Transition Triggered by Order-Disorder Transformation of Carboxyl Oxygen Atoms Coupled with Distinct Reorientations in $[\text{HN}(\text{C}_4\text{H}_9)_3]_3(\text{fumarate})_0.5 \cdot (\text{fumaric})_1$. <i>TJ ETQq1</i> 1 0.784314 <i>rgBT /Overlock</i> 10 Tf 50	1.4	20
66	(2-Methylpiperidine) PbI_3 : an ABX ₃ -type organic-inorganic hybrid chain compound and its semiconducting nanowires with photoconductive properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 11466-11471.	2.7	20
67	Growth, thermophysical and electrical properties of the nonlinear optical crystal BPO_4 . <i>Crystal Research and Technology</i> , 2012, 47, 391-396.	0.6	19
68	In Situ Di-, Piezo-, Ferroelectric Properties and Domain Configurations of $\text{Pb}(\text{Sc}_{1/2}\text{Nb}_{1/2})_3 \cdot \text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})_3 \cdot \text{PbTiO}_3$ Ferroelectric Crystals. <i>Crystal Growth and Design</i> , 2018, 18, 145-151.	1.4	18
69	Dibutylammonium Hydrogen Oxalate: An Above-Room-Temperature Order-Disorder Phase Transition Molecular Material. <i>Crystal Growth and Design</i> , 2015, 15, 5263-5268.	1.4	18
70	Structural Origin of Thermally Induced Second Harmonic Generation Enhancement in $\text{RbNaMgP}_2\text{O}_7$. <i>Chemistry of Materials</i> , 2019, 31, 9843-9849.	3.2	18
71	Abrupt Structural Transformation in Asymmetric ABPO_4F (A = K, Rb, Cs). <i>Inorganic Chemistry</i> , 2019, 58, 1733-1737.	1.9	18
72	An organic-inorganic hybrid birefringent material with diverse functional groups. <i>Chemical Communications</i> , 2021, 57, 6668-6671.	2.2	18

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73	Non- π -Conjugated Deep-Ultraviolet Nonlinear Optical Crystal $K_2Zn_3(SO_4)_4(HSO_4)_2F_4$. Journal of Physical Chemistry Letters, 2021, 12, 8280-8284.	2.1	18
74	2D van der Waals Layered $[C(NH_2)_3]_2SO_3S$ Exhibits Desirable UV Nonlinear-Optical Trade-Off. Inorganic Chemistry, 2021, 60, 14544-14549.	1.9	18
75	Preparation, structure, and photoluminescence properties of new layered borates $KBaRE(B_3O_6)_2$ ($RE = Y, Eu, \text{ and } Tb$). Solid State Sciences, 2012, 14, 305-310.	1.5	17
76	Mixing Halogens To Assemble an All-Inorganic Layered Perovskite with Warm White Light Emission. Chemistry - A European Journal, 2018, 24, 9243-9246.	1.7	17
77	$Cs_2ZnSn_3S_8$: A Sulfide Compound Realizes a Large Birefringence by Modulating the Dimensional Structure. Inorganic Chemistry, 2021, 60, 9248-9253.	1.9	17
78	Order-disorder phase transition coupled with torsion in tri-n-butylammonium trichloroacetate (TBAT). Journal of Materials Chemistry C, 2015, 3, 6053-6057.	2.7	15
79	A High-Temperature Order-Disorder Phase Transition Coupled With Conformational Change in the Hybrid Material $[C_6H_{13}NH_2]_2 \cdot ZnBr_4$. Chemistry - an Asian Journal, 2016, 11, 2876-2881.	1.7	15
80	Structurally stable borate as a UV nonlinear optical material. Inorganic Chemistry Communication, 2017, 84, 127-130.	1.8	15
81	Polarization Switching Induced by Slowing the Dynamic Swinglike Motion in a Flexible Organic Dielectric. Journal of Physical Chemistry C, 2016, 120, 27571-27576.	1.5	14
82	An Exceptional Peroxide Birefringent Material Resulting from $d\pi\pi$ Interactions. Angewandte Chemie, 2020, 132, 9500-9503.	1.6	14
83	A new nonlinear optical sulfate of layered structure: $Cs_2Zn_2(SO_4)_3$. Inorganic Chemistry Communication, 2021, 124, 108390.	1.8	13
84	Cooperation of Three Chromophores Generates the Water-Resistant Nitrate Nonlinear Optical Material $Bi_3TeO_6OH(NO_3)_2$. Angewandte Chemie, 2017, 129, 555-559.	1.6	12
85	$Ba_3Y_2B_6O_{15}$, a novel cubic borate. Acta Crystallographica Section C: Crystal Structure Communications, 2011, 67, i39-i41.	0.4	11
86	N-Methylpyrrolidinium hydrogen tartrate (NMPHT): an above-room-temperature order-disorder molecular switchable dielectric material. RSC Advances, 2017, 7, 24368-24373.	1.7	11
87	A Deep-UV Nonlinear Optical Borosulfate with Incommensurate Modulations. Angewandte Chemie, 2021, 133, 11558-11564.	1.6	11
88	$CsY(SO_4)_2 \cdot 4H_2O$: A Deep-Ultraviolet Birefringent Crystal Induced by an Edge-Sharing Connection. Inorganic Chemistry, 2022, 61, 4468-4475.	1.9	11
89	Physical Properties of a Promising Nonlinear Optical Crystal $K_3Ba_3Li_2Al_4B_6O_{20}F$. Crystal Growth and Design, 2018, 18, 7368-7372.	1.4	10
90	Three Highly Fluorescent Iridium(III) Unit Based Coordination Polymers: Coordinated Solvent-Dependent Photoluminescence. Crystal Growth and Design, 2016, 16, 406-411.	1.4	9

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91	Reversible phase transition triggered by order→disorder transformations and distortions in dipropylammonium d(-)-10-camphorsulfonate. <i>CrystEngComm</i> , 2016, 18, 2852-2856.	1.3	9
92	The $\hat{\Gamma}^2$ -modification of trizinc borate phosphate, $Zn_3(BO_3)_3(PO_4)_4$. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2011, 67, i3-i3.	0.2	8
93	Growth and optical properties of $Na_3Gd_2(BO_3)_3$ crystal. <i>Optical Materials</i> , 2012, 34, 1464-1467.	1.7	8
94	Chiral polyoxomolybdate-based hybrid compounds obtained by spontaneous resolution: syntheses, structures and non-linear optical properties. <i>New Journal of Chemistry</i> , 2016, 40, 10316-10324.	1.4	8
95	Temperature-triggered order→disorder phase transition in molecular-ionic material N-butyl-diethanolammonium picrate monohydrate. <i>RSC Advances</i> , 2016, 6, 69546-69550.	1.7	7
96	Pushing $KTiOPO_4$ -like Nonlinear Optical Sulfates into the Deep-Ultraviolet Spectral Region. <i>Inorganic Chemistry</i> , 2021, 60, 18950-18956.	1.9	7
97	A Hybrid Halide Perovskite Birefringent Crystal. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	6
98	Order-Disorder Phase Transition, Anisotropic and Switchable Dielectric Constants Induced by Freeze of the Wheel-Like Motion in a Hexafluorosilicate-Based Crystal. <i>ChemistrySelect</i> , 2016, 1, 5310-5315.	0.7	5
99	Maximizing the linear and nonlinear optical responses of alkaline tricyanomelamine. <i>Fundamental Research</i> , 2022, , .	1.6	5
100	An Uncommon Hypervalent Fluorooxosilicophosphate. <i>Chemistry - an Asian Journal</i> , 2019, 14, 4174-4178.	1.7	4
101	Highly Fluorescent and Stable Ruthenium Unit/Layered Double Hydroxide Composite with Sensitive Detection of $Cr_2O_7^{2-}$. <i>ChemistrySelect</i> , 2017, 2, 6218-6222.	0.7	3
102	An optoelectronic duple bistable phosphate with ultrahigh thermal stability. <i>Journal of Materials Chemistry C</i> , 2018, 6, 388-392.	2.7	3
103	Two Covalent Ultraviolet Nonlinear Optical Crystals. <i>Chemistry - an Asian Journal</i> , 2020, 15, 775-779.	1.7	3
104	Synthesis, Structure, and Properties of the Non-Centrosymmetric Compound $LiNaRbB_5O_8(OH)_2$. <i>Crystal Growth and Design</i> , 2018, 18, 5745-5749.	1.4	2
105	A New Nonlinear Optical Material with $\hat{A}N(CN)_2$ -Anion. <i>Chemistry - A European Journal</i> , 2021, , .	1.7	2