

Osamu Sato

List of Publications by Year in descending order

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106
papers

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citations

87888

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109
docs citations

109
times ranked

5334
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of Magnetic Properties through External Stimuli. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2152-2187.	13.8	1,021
2	Dynamic molecular crystals with switchable physical properties. <i>Nature Chemistry</i> , 2016, 8, 644-656.	13.6	675
3	Optically Switchable Molecular Solids: A Photoinduced Spin-Crossover, Photochromism, and Photoinduced Magnetization. <i>Accounts of Chemical Research</i> , 2003, 36, 692-700.	15.6	400
4	Structural Color Films with Lotus Effects, Superhydrophilicity, and Tunable Stop-Bands. <i>Accounts of Chemical Research</i> , 2009, 42, 1-10.	15.6	312
5	Iron(III) Spin-Crossover Compounds with a Wide Apparent Thermal Hysteresis around Room Temperature. <i>Journal of the American Chemical Society</i> , 2001, 123, 11644-11650.	13.7	284
6	First Observation of Light-Induced Excited Spin State Trapping for an Iron(III) Complex. <i>Journal of the American Chemical Society</i> , 2000, 122, 7126-7127.	13.7	233
7	Photo-induced Valence Tautomerism in Co Complexes. <i>Accounts of Chemical Research</i> , 2007, 40, 361-369.	15.6	198
8	Valence Tautomeric Transitions with Thermal Hysteresis around Room Temperature and Photoinduced Effects Observed in a Cobalt Tetraoxolene Complex. <i>Journal of the American Chemical Society</i> , 2006, 128, 1790-1791.	13.7	192
9	Photoinduced Metal-to-Metal Charge Transfer toward Single-Chain Magnet. <i>Journal of the American Chemical Society</i> , 2010, 132, 8250-8251.	13.7	177
10	A Spin-Crossover Cluster of Iron(II) Exhibiting a Mixed Spin Structure and Synergy between Spin Transition and Magnetic Interaction. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 1475-1478.	13.8	176
11	A light-induced spin crossover actuated single-chain magnet. <i>Nature Communications</i> , 2013, 4, .	12.8	162
12	[MnIII(salen)] ₆ [FeIII(bpmb)(CN) ₂] ₆ ·7 H ₂ O: A Cyanide-Bridged Nanosized Molecular Wheel. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7742-7745.	13.8	157
13	Evidence of the Chemical Uniaxial Strain Effect on Electrical Conductivity in the Spin-Crossover Conducting Molecular System: [Fe ^{III} (qnal) ₂] ₂ [Pd(dmit) ₂] ₅ ·Acetone. <i>Journal of the American Chemical Society</i> , 2008, 130, 6688-6689.	13.7	156
14	Coexistence of Magnetization Relaxation and Dielectric Relaxation in a Single-Chain Magnet. <i>Journal of the American Chemical Society</i> , 2006, 128, 16428-16429.	13.7	143
15	Manipulating Metal-to-Metal Charge Transfer for Materials with Switchable Functionality. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12216-12226.	13.8	132
16	Photoswitchable Dynamic Magnetic Relaxation in a Well-Isolated {Fe ₂ Co} Double-Zigzag Chain. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5119-5123.	13.8	119
17	Molecular motor-driven abrupt anisotropic shape change in a single crystal of a Ni complex. <i>Nature Chemistry</i> , 2014, 6, 1079-1083.	13.6	111
18	A ferromagnetically coupled Fe ₄₂ cyanide-bridged nanocage. <i>Nature Communications</i> , 2015, 6, 5955.	12.8	104

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19	Three-Dimensionally Ordered Macroporous Polymer Materials: An Approach for Biosensor Applications. <i>Langmuir</i> , 2002, 18, 4526-4529.	3.5	103
20	Rhodamine 6G-Labeled Pyridyl Aroylhydrazone Fe(II) Complex Exhibiting Synergetic Spin Crossover and Fluorescence. <i>Journal of the American Chemical Society</i> , 2018, 140, 9426-9433.	13.7	93
21	Multi-Step Spin Crossover Accompanied by Symmetry Breaking in an Fe ^{III} Complex: Crystallographic Evidence and DFT Studies. <i>Chemistry - A European Journal</i> , 2013, 19, 12948-12952.	3.3	89
22	Reversible Electron Transfer in a Linear {Fe ₂ Co} Trinuclear Complex Induced by Thermal Treatment and Photoirradiation. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4367-4370.	13.8	81
23	Above Room Temperature Organic Ferroelectrics: Diprotonated 1,4-Diazabicyclo[2.2.2]octane Shifts between Two 2-Chlorobenzoates. <i>Journal of the American Chemical Society</i> , 2016, 138, 12005-12008.	13.7	81
24	Metallogrid Single-Molecule Magnet: Solvent-Induced Nuclearity Transformation and Magnetic Hysteresis at 16 K. <i>Inorganic Chemistry</i> , 2016, 55, 5476-5484.	4.0	76
25	Water-Switching of Spin Transitions Induced by Metal-to-Metal Charge Transfer in a Microporous Framework. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8645-8648.	13.8	72
26	Assembling an alkyl rotor to access abrupt and reversible crystalline deformation of a cobalt(II) complex. <i>Nature Communications</i> , 2015, 6, 8810.	12.8	69
27	Simultaneous Modulation of Magnetic and Dielectric Transition via Spin-Crossover-Tuned Spin Arrangement and Charge Distribution. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8468-8472.	13.8	67
28	Bistability of Magnetization without Spin-Transition in a High-Spin Cobalt(II) Complex due to Angular Momentum Quenching. <i>Journal of the American Chemical Society</i> , 2009, 131, 4560-4561.	13.7	63
29	Switching the magnetic hysteresis of an [Fe ₂ (NCWv)]-based coordination polymer by photoinduced reversible spin crossover. <i>Nature Chemistry</i> , 2021, 13, 698-704.	13.6	61
30	Direct Observation of Ordered High-Spin-Low-Spin Intermediate States of an Iron(III) Three-Step Spin-Crossover Complex. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 5184-5189.	13.8	59
31	Superior thermoelasticity and shape-memory nanopores in a porous supramolecular organic framework. <i>Nature Communications</i> , 2016, 7, 11564.	12.8	58
32	Structures and magnetism of cyano-bridged grid-like two-dimensional 4f-3d arrays. <i>Journal of Materials Chemistry</i> , 2006, 16, 2625-2634.	6.7	56
33	Metal-Coated Colloidal Crystal Film as Surface-Enhanced Raman Scattering Substrate. <i>Langmuir</i> , 2002, 18, 5043-5046.	3.5	55
34	Charge-Transfer Phase Transition of a Cyanide-Bridged Fe ^{II} /Fe ^{III} Coordination Polymer. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6047-6050.	13.8	55
35	Reversible On-Off Switching of the Hysteretic Spin Crossover in a Cobalt(II) Complex via Crystal to Crystal Transformation. <i>Inorganic Chemistry</i> , 2019, 58, 11589-11598.	4.0	50
36	Controlling dynamic magnetic properties of coordination clusters via switchable electronic configuration. <i>Chemical Society Reviews</i> , 2021, 50, 6832-6870.	38.1	48

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37	Directional Electron Transfer in Crystals of [CrCo] Dinuclear Complexes Achieved by Chirality-Assisted Preparative Method. <i>Journal of the American Chemical Society</i> , 2016, 138, 14170-14173.	13.7	46
38	Macroscopic Polarization Change via Electron Transfer in a Valence Tautomeric Cobalt Complex. <i>Nature Communications</i> , 2020, 11, 1992.	12.8	41
39	Giant anisotropic thermal expansion actuated by thermodynamically assisted reorientation of imidazoliums in a single crystal. <i>Nature Communications</i> , 2019, 10, 4805.	12.8	39
40	Selective CO ₂ Capture and High Proton Conductivity of a Functional Star-of-David Catenane Metal-Organic Framework. <i>Advanced Materials</i> , 2017, 29, 1703301.	21.0	37
41	Heterometallic Fe ^{III} /K Coordination Polymer with a Wide Thermal Hysteretic Spin Transition at Room Temperature. <i>Chemistry - A European Journal</i> , 2016, 22, 532-538.	3.3	34
42	Electrochromism and electrochemical magnetism in Fe Prussian blue. <i>Journal of Solid State Electrochemistry</i> , 2007, 11, 773-779.	2.5	33
43	A Material Showing Colossal Positive and Negative Volumetric Thermal Expansion with Hysteretic Magnetic Transition. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13052-13055.	13.8	33
44	A Switchable Complex Ligand Exhibiting Photoinduced Valence Tautomerism. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 4150-4153.	2.0	32
45	Slow Magnetic Relaxation in a Mononuclear Ruthenium(III) Complex. <i>Chemistry - A European Journal</i> , 2017, 23, 10028-10033.	3.3	31
46	A one-dimensional homochiral Mo(IV)-Cu(II) coordination polymer: spontaneous resolution and photoresponsive properties. <i>CrystEngComm</i> , 2010, 12, 4045.	2.6	30
47	Switchable molecular magnets. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2012, 88, 213-225.	3.8	30
48	Anisotropic Change in the Magnetic Susceptibility of a Dynamic Single Crystal of a Cobalt(II) Complex. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 717-721.	13.8	30
49	Steuerung des Metall-Metall-Charge-Transfers zur Erzeugung schaltbarer Materialien. <i>Angewandte Chemie</i> , 2018, 130, 12394-12405.	2.0	28
50	Substituent effects on the fluorescent spin-crossover Fe(II) complexes of rhodamine 6G hydrazones. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 1170-1176.	6.0	28
51	Quenching and Restoration of Orbital Angular Momentum through a Dynamic Bond in a Cobalt(II) Complex. <i>Journal of the American Chemical Society</i> , 2020, 142, 11434-11441.	13.7	28
52	Redox Modulation of Spin Crossover within a Cobalt Metallogrid. <i>Inorganic Chemistry</i> , 2016, 55, 902-908.	4.0	26
53	Thermally Induced Intra-Carboxyl Proton Shuttle in a Molecular Rack-and-Pinion Cascade Achieving Macroscopic Crystal Deformation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14628-14632.	13.8	25
54	Observation of Proton Transfer Coupled Spin Transition and Trapping of Photoinduced Metastable Proton Transfer State in an Fe(II) Complex. <i>Journal of the American Chemical Society</i> , 2019, 141, 14384-14393.	13.7	23

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55	Influence of Intermolecular Interactions on Valence Tautomeric Behaviors in Two Polymorphic Dinuclear Cobalt Complexes. <i>Chemistry - A European Journal</i> , 2016, 22, 17130-17135.	3.3	22
56	An Azulene-Based Chiral Helicene and Its Air-Stable Cation Radical. <i>Bulletin of the Chemical Society of Japan</i> , 2019, 92, 1867-1873.	3.2	21
57	Manipulating electron redistribution to achieve electronic pyroelectricity in molecular [FeCo] crystals. <i>Nature Communications</i> , 2021, 12, 4836.	12.8	21
58	Field-Induced Slow Magnetic Relaxation in an Octacoordinated Fe(II) Complex with Pseudo-D _{2d} Symmetry: Magnetic, HF-EPR, and Theoretical Investigations. <i>Inorganic Chemistry</i> , 2017, 56, 8018-8025.	4.0	20
59	Effect of Axial Ligands on Easy-Axis Anisotropy and Field-Induced Slow Magnetic Relaxation in Heptacoordinated Fe II Complexes. <i>Chemistry - A European Journal</i> , 2020, 26, 4780-4789.	3.3	20
60	Photomagnetic Langmuir-Blodgett films consisting of azobenzene and Prussian Blue: Correlation between the film structure and the photomagnetic efficiency. <i>Science and Technology of Advanced Materials</i> , 2006, 7, 134-138.	6.1	18
61	Fe(II) spincrossover complex of [1,2,5]thiadiazolo[3,4-f][1,10]phenanthroline. <i>CrystEngComm</i> , 2009, 11, 2065.	2.6	17
62	Room-temperature switching of magnetic hysteresis by reversible single-crystal-to-single-crystal solvent exchange in imidazole-inspired Fe(II) complexes. <i>Dalton Transactions</i> , 2016, 45, 14911-14918.	3.3	17
63	Direct Observation of Ordered High-Spin-Low-Spin Intermediate States of an Iron(III) Three-Step Spin-Crossover Complex. <i>Angewandte Chemie</i> , 2016, 128, 5270-5275.	2.0	17
64	Persistent four-coordinate iron-centered radical stabilized by π -donation. <i>Chemical Science</i> , 2016, 7, 191-198.	7.4	16
65	Structural Modulation of Fluorescent Rhodamine-Based Dysprosium(III) Single-Molecule Magnets. <i>Inorganic Chemistry</i> , 2020, 59, 2308-2315.	4.0	16
66	Simultaneous Modulation of Magnetic and Dielectric Transition via Spin-Crossover-Tuned Spin Arrangement and Charge Distribution. <i>Angewandte Chemie</i> , 2018, 130, 8604-8608.	2.0	15
67	Three-Step Spin State Transition and Hysteretic Proton Transfer in the Crystal of an Iron(II) Hydrazone Complex. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14781-14787.	13.8	15
68	A Molecular Crystal Shows Multiple Correlated Magnetic and Ferroelectric Switchings. <i>CCS Chemistry</i> , 2021, 3, 2464-2472.	7.8	15
69	Spin Crossover Behavior of Dinuclear Fe ^{II} Complexes with Bis-tetradentate Bridging-type Ligands. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 725-729.	2.0	14
70	Manipulating Slow Magnetic Relaxation by Light in a Charge Transfer {Fe ₂ Co} Complex. <i>Chemistry - A European Journal</i> , 2020, 26, 3259-3263.	3.3	14
71	Synthesis, Structure, and Magnetic Properties of New Spin Crossover Fe(II) Complexes Forming Short Hydrogen Bonds with Substituted Dicarboxylic Acids. <i>Crystals</i> , 2016, 6, 131.	2.2	13
72	Temperature dependence of spherical electron transfer in a nanosized [Fe ₁₄] complex. <i>Nature Communications</i> , 2019, 10, 5510.	12.8	12

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73	Water-oriented magnetic anisotropy transition. <i>Nature Communications</i> , 2021, 12, 2738.	12.8	12
74	Enhanced photochemical shift of reflection band from an inverse opal film based on larger birefringent polymer liquid crystals: Effect of tolane group on the photochemical shift behavior. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 1981-1990.	2.1	11
75	Halogen Substituent Effect on the Spin-Transition Temperature in Spin-Crossover Fe(III) Compounds Bearing Salicylaldehyde 2-Pyridyl Hydrazone-Type Ligands and Dicarboxylic Acids. <i>Inorganics</i> , 2017, 5, 53.	2.7	11
76	Electron-Transfer Activity in a Cyanide-Bridged Fe ₄₂ Nanomagnet. <i>Inorganic Chemistry</i> , 2019, 58, 10160-10166.	4.0	11
77	Mixed-metal complex [Fe(bipe)(Au(CN) ₂) ₂ ·MeOH] with gold clusters: a novel two-dimensional polyrotaxane net clipped by aurophilic interaction. <i>CrystEngComm</i> , 2010, 12, 4031.	2.6	9
78	Cooperative spin transition and thermally quenched high-spin state in new polymorph of [Fe(qsal) ₂] ₃ . <i>Hyperfine Interactions</i> , 2012, 206, 1-5.	0.5	9
79	Femtosecond Polarization Switching in the Crystal of a [CrCo] Dinuclear Complex. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15865-15869.	13.8	9
80	ESR study of light-induced valence tautomerism of a Co mononuclear complex: [Co(phen)(3,5-DTBSQ)(3,5-DTBCat)]. <i>Polyhedron</i> , 2013, 66, 167-170.	2.2	7
81	A Material Showing Colossal Positive and Negative Volumetric Thermal Expansion with Hysteretic Magnetic Transition. <i>Angewandte Chemie</i> , 2017, 129, 13232-13235.	2.0	7
82	Preparation and Valence Tautomeric Behavior of a Cobalt-Dioxolene Complex with a New TTF-functionalized Phenanthroline Ligand. <i>Chemistry Letters</i> , 2013, 42, 700-702.	1.3	6
83	Stepwise Dielectric Switching Occurs in Two Photo-Responsive Complexes Possessing Two-Dimensional Structures. <i>Inorganic Chemistry</i> , 2021, 60, 380-386.	4.0	6
84	Femtosecond Polarization Switching in the Crystal of a [CrCo] Dinuclear Complex. <i>Angewandte Chemie</i> , 2020, 132, 15999-16003.	2.0	5
85	Adjusting Rotational Behavior of Molecular Rotors by a Rational Tuning of Molecular Structure. <i>Inorganic Chemistry</i> , 2021, 60, 8042-8048.	4.0	5
86	Aggregation-induced emission meets magnetic bistability: Synergy between spin crossover and fluorescence in iron(II) complexes. <i>Chinese Chemical Letters</i> , 2023, 34, 107492.	9.0	5
87	Three-Step Spin State Transition and Hysteretic Proton Transfer in the Crystal of an Iron(II) Hydrazone Complex. <i>Angewandte Chemie</i> , 2020, 132, 14891-14897.	2.0	4
88	Hysteresis Loops in Dielectric Properties of the Thermochromic Copper(II) Compounds. <i>Chemistry Letters</i> , 2006, 35, 1114-1115.	1.3	3
89	Synthesis, Structure and Magnetic Properties of a Cyano-bridged Dinuclear Compound $[\text{Fe}^{\text{III}}(\text{pzTp})(\text{CN})_2]_{1/4}[\text{Cu}^{\text{II}}(\text{TPyA})_2\text{O}(\text{ClO}_4)_4] \cdot \text{Et}_2\text{O} \cdot \text{ClO}_4$ (pzTp = tetrakis(pyrazolyl)borate). <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2009, 635, 389-392.	1.2	3
90	1,10-Phenanthroline-5,6-dione ethanol monosolvate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2014, 70, o573-o573.	0.2	3

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91	A compressed octahedral cobalt(II) complex in the crystal structure of diaqua[6,6- π -sulfanediylbis(2,2'-bipyridine)]cobalt(II) dinitrate. Acta Crystallographica Section E: Crystallographic Communications, 2017, 73, 993-995.	0.5	3
92	1,4-Diazabicyclo[2.2.2]octane-1,4-dium bis(3-chlorobenzoate). Acta Crystallographica Section E: Structure Reports Online, 2014, 70, o154-o154.	0.2	2
93	Thermally Induced Intra-Carboxyl Proton Shuttle in a Molecular Rack-and-Pinion Cascade Achieving Macroscopic Crystal Deformation. Angewandte Chemie, 2016, 128, 14848-14852.	2.0	2
94	Crystal structures of two nickel compounds comprising neutral Ni ^{II} hydrazone complexes and dicarboxylic acids. Acta Crystallographica Section E: Crystallographic Communications, 2017, 73, 103-106.	0.5	2
95	Photoswitching Behavior of SiO ₂ Inverse Opal Films Infiltrated with Azo-Tolane Copolymer: Effect of Polymer Main Chain Structure. Molecular Crystals and Liquid Crystals, 2009, 513, 79-88.	0.9	1
96	Frontispiece: Heterometallic Fe ^{III} /K Coordination Polymer with a Wide Thermal Hysteretic Spin Transition at Room Temperature. Chemistry - A European Journal, 2016, 22, .	3.3	1
97	Anisotropic Thermal Expansion in an Anionic Framework Showing Guest-Dependent Phases. Frontiers in Chemistry, 2020, 8, 506.	3.6	1
98	Phototunable Liquid Crystalline Photonic Band Gap Material. Molecular Crystals and Liquid Crystals, 2006, 458, 111-119.	0.9	0
99	Photo-Induced Photonic Band Gap Shift of SiO ₂ Inverse Opal Films Infiltrated by Azo-Tolane Copolymer. Molecular Crystals and Liquid Crystals, 2010, 516, 174-181.	0.9	0
100	Innentitelbild: Photoswitchable Dynamic Magnetic Relaxation in a Well-Isolated {Fe ₂ Co} Double-Zigzag Chain (Angew. Chem. 21/2012). Angewandte Chemie, 2012, 124, 5102-5102.	2.0	0
101	Inside Cover: Photoswitchable Dynamic Magnetic Relaxation in a Well-Isolated {Fe ₂ Co} Double-Zigzag Chain (Angew. Chem. Int. Ed. 21/2012). Angewandte Chemie - International Edition, 2012, 51, 5016-5016.	13.8	0
102	Crystal Structure and Magnetic Properties of a novel Fe(II) complex with 2,2'-6,6'-Terpyridine Ligand. Transactions of the Materials Research Society of Japan, 2014, 39, 7-9.	0.2	0
103	Bis(thiocyanato- λ^2 N)[tris(pyridin-2-ylmethyl)amine- λ^4 N]iron(II). Acta Crystallographica Section E: Structure Reports Online, 2014, 70, m35-m35.	0.2	0
104	Di- μ_4 -tricyanido-tetracyanidobis[hydrotris(pyrazoylborato)]tetramethanoliron(III)iron(II) dimethanol disolvate. Acta Crystallographica Section E: Structure Reports Online, 2014, 70, m56-m56.	0.2	0
105	Frontispiece: Influence of Intermolecular Interactions on Valence Tautomeric Behaviors in Two Polymorphic Dinuclear Cobalt Complexes. Chemistry - A European Journal, 2016, 22, .	3.3	0
106	Paramagnetism enhancement by <i>in situ</i> electrochemical hole doping into a Prussian Blue thin film. Materials Chemistry Frontiers, 2018, 2, 1004-1008.	5.9	0