

# Guillermo Minguez Espallargas

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1367528/publications.pdf>

Version: 2024-02-01

86  
papers

7,341  
citations

117619

34  
h-index

53222

85  
g-index

108  
all docs

108  
docs citations

108  
times ranked

10726  
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskite solar cells employing organic charge-transport layers. <i>Nature Photonics</i> , 2014, 8, 128-132.	31.4	1,320
2	Nontemplate Synthesis of $\text{CH}_3\text{NH}_3\text{PbBr}_3$ Perovskite Nanoparticles. <i>Journal of the American Chemical Society</i> , 2014, 136, 850-853.	13.7	1,128
3	Magnetic functionalities in MOFs: from the framework to the pore. <i>Chemical Society Reviews</i> , 2018, 47, 533-557.	38.1	615
4	Dynamic magnetic MOFs. <i>Chemical Society Reviews</i> , 2013, 42, 1525-1539.	38.1	577
5	Flexible high efficiency perovskite solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 994.	30.8	409
6	Combining metals with halogen bonds. <i>CrystEngComm</i> , 2008, 10, 1712.	2.6	300
7	Rational Modification of the Hierarchy of Intermolecular Interactions in Molecular Crystal Structures by Using Tunable Halogen Bonds. <i>Chemistry - A European Journal</i> , 2009, 15, 7554-7568.	3.3	164
8	Designing Intermolecular Interactions between Halogenated Peripheries of Inorganic and Organic Molecules: Electrostatically Directed $\text{M}^{\text{II}}\text{X}_2\text{C}$ Halogen Bonds. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 435-440.	3.8	152
9	Spin-Crossover Modification through Selective $\text{CO}_2$ Sorption. <i>Journal of the American Chemical Society</i> , 2013, 135, 15986-15989.	13.7	129
10	Reversible Extrusion and Uptake of HCl Molecules by Crystalline Solids Involving Coordination Bond Cleavage and Formation. <i>Journal of the American Chemical Society</i> , 2006, 128, 9584-9585.	13.7	113
11	A SIMMOF: Three-Dimensional Organisation of Single-Ion Magnets with Anion-Exchange Capabilities. <i>Chemistry - A European Journal</i> , 2014, 20, 10695-10702.	3.3	107
12	A Family of Layered Chiral Porous Magnets Exhibiting Tunable Ordering Temperatures. <i>Inorganic Chemistry</i> , 2013, 52, 10031-10040.	4.0	101
13	Involving metals in halogen-halogen interactions: second-sphere Lewis acid ligands for perhalometallate ions ( $\text{M}^{\text{II}}\text{X}_2\text{C}$ ). <i>CrystEngComm</i> , 2003, 5, 343-345.	2.6	100
14	Tuning the magneto-structural properties of non-porous coordination polymers by HCl chemisorption. <i>Nature Communications</i> , 2012, 3, 828.	12.8	99
15	Isorecticular two-dimensional magnetic coordination polymers prepared through pre-synthetic ligand functionalization. <i>Nature Chemistry</i> , 2018, 10, 1001-1007.	13.6	94
16	Reversible Gas Uptake by a Nonporous Crystalline Solid Involving Multiple Changes in Covalent Bonding. <i>Journal of the American Chemical Society</i> , 2007, 129, 15606-15614.	13.7	82
17	Noncovalent Interactions under Extreme Conditions: High-Pressure and Low-Temperature Diffraction Studies of the Isostructural Metal-Organic Networks (4-Chloropyridinium) $_2$ [ $\text{CoX}_4$ ] (X = Cl, Br). <i>Journal of the American Chemical Society</i> , 2008, 130, 9058-9071.	13.7	82
18	Multifunctional Magnetic Materials Obtained by Insertion of a Spin-Crossover $\text{Fe}^{\text{III}}$ Complex into Bimetallic Oxalate-Based Ferromagnets. <i>Chemistry - A European Journal</i> , 2010, 16, 2207-2219.	3.3	79

#	ARTICLE	IF	CITATIONS
19	Solvent-Free Synthesis of ZIFs: A Route toward the Elusive Fe(II) Analogue of ZIF-8. <i>Journal of the American Chemical Society</i> , 2019, 141, 7173-7180.	13.7	76
20	Blue-luminescent organic lead bromide perovskites: highly dispersible and photostable materials. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14039-14045.	10.3	74
21	Ligand flexibility and framework rearrangement in a new family of porous metal-organic frameworks. <i>Chemical Communications</i> , 2007, , 1532-1534.	4.1	73
22	Ligand Substitution within Nonporous Crystals of a Coordination Polymer: Elimination from and Insertion into Ag-O Bonds by Alcohol Molecules in a Solid-Vapor Reaction. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1693-1697.	13.8	65
23	Cobalt Metal-Organic Framework Based on Layered Double Nanosheets for Enhanced Electrocatalytic Water Oxidation in Neutral Media. <i>Journal of the American Chemical Society</i> , 2020, 142, 19198-19208.	13.7	64
24	Breathing-Dependent Redox Activity in a Tetrathiafulvalene-Based Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2018, 140, 10562-10569.	13.7	62
25	Mechanistic Insights into a Gas-Solid Reaction in Molecular Crystals: The Role of Hydrogen Bonding. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8892-8896.	13.8	59
26	Symmetrical reconversion: measuring cross-correlation rates with enhanced accuracy. <i>Journal of Magnetic Resonance</i> , 2003, 161, 258-264.	2.1	58
27	Unexpected structural homologies involving hydrogen-bonded and halogen-bonded networks in halopyridinium halometallate salts. <i>CrystEngComm</i> , 2006, 8, 425.	2.6	51
28	A highly stable and hierarchical tetrathiafulvalene-based metal-organic framework with improved performance as a solid catalyst. <i>Chemical Science</i> , 2018, 9, 2413-2418.	7.4	50
29	2D and 3D Anilato-Based Heterometallic M(I)M(III) Lattices: The Missing Link. <i>Inorganic Chemistry</i> , 2015, 54, 5410-5418.	4.0	45
30	Effects of halogen bonding in ferromagnetic chains based on Co(ii) coordination polymers. <i>CrystEngComm</i> , 2010, 12, 2339.	2.6	43
31	Electronic, Structural and Functional Versatility in Tetrathiafulvalene-Lanthanide Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2019, 25, 12636-12643.	3.3	40
32	Cobalt Metal-Organic Framework Based on Two Dinuclear Secondary Building Units for Electrocatalytic Oxygen Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 46658-46665.	8.0	40
33	Combination of Magnetic Susceptibility and Electron Paramagnetic Resonance to Monitor the 1D to 2D Solid State Transformation in Flexible Metal-Organic Frameworks of Co(II) and Zn(II) with 1,4-Bis(triazol-1-ylmethyl)benzene. <i>Inorganic Chemistry</i> , 2012, 51, 4403-4410.	4.0	37
34	Layered gadolinium hydroxides for low-temperature magnetic cooling. <i>Chemical Communications</i> , 2015, 51, 14207-14210.	4.1	37
35	Snapshots of a solid-state transformation: coexistence of three phases trapped in one crystal. <i>Chemical Science</i> , 2016, 7, 2907-2915.	7.4	36
36	Chemical transformations of a crystalline coordination polymer: a multi-stage solid-vapour reaction manifold. <i>Chemical Science</i> , 2013, 4, 696-708.	7.4	35

#	ARTICLE	IF	CITATIONS
37	Cation influence in adsorptive propane/propylene separation in ZIF-8 (SOD) topology. <i>Chemical Engineering Journal</i> , 2019, 371, 848-856.	12.7	35
38	Competition between coordination network and halogen bond network formation: towards halogen-bond functionalised network materials using copper-iodobenzoate units. <i>CrystEngComm</i> , 2008, 10, 1335.	2.6	34
39	Design of cost-efficient and photocatalytically active Zn-based MOFs decorated with Cu <sub>2</sub> O nanoparticles for CO <sub>2</sub> methanation. <i>Chemical Communications</i> , 2019, 55, 10932-10935.	4.1	34
40	Structural re-arrangement in two hexanuclear Cu <sup>II</sup> complexes: from a spin frustrated trigonal prism to a strongly coupled antiferromagnetic soluble ring complex with a porous tubular structure. <i>Chemical Science</i> , 2014, 5, 324-332.	7.4	31
41	One-dimensional organization of free radicals via halogen bonding. <i>CrystEngComm</i> , 2012, 14, 6381.	2.6	30
42	Semiconductor Porous Hydrogen-Bonded Organic Frameworks Based on Tetrathiafulvalene Derivatives. <i>Journal of the American Chemical Society</i> , 2022, 144, 9074-9082.	13.7	26
43	Coordination Polymer Flexibility Leads to Polymorphism and Enables a Crystalline Solid-Vapour Reaction: A Multi-Technique Mechanistic Study. <i>Chemistry - A European Journal</i> , 2015, 21, 8799-8811.	3.3	25
44	Charge-transfer interactions between fullerenes and a mesoporous tetrathiafulvalene-based metal-organic framework. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1883-1893.	2.8	24
45	Dynamic Magnetic Materials Based on the Cationic Coordination Polymer [Cu(btix) <sub>2</sub> ] <sub>n</sub> <sup>2+</sup> [btix = 1,4-Bis(triazol-1-ylmethyl)benzene]: Tuning the Structural and Magnetic Properties through Anion Exchange. <i>Inorganic Chemistry</i> , 2012, 51, 12938-12947.	4.0	23
46	Sublimable chloroquinolate lanthanoid single-ion magnets deposited on ferromagnetic electrodes. <i>Chemical Science</i> , 2018, 9, 199-208.	7.4	23
47	Different structural destinations: comparing reactions of [CuBr <sub>2</sub> (3-Brpy) <sub>2</sub> ] crystals with HBr and HCl gas. <i>CrystEngComm</i> , 2011, 13, 4400.	2.6	22
48	Key Role of the Cation in the Crystallization of Chiral Tris(Anilato)Metalate Magnetic Anions. <i>Crystal Growth and Design</i> , 2016, 16, 518-526.	3.0	22
49	Chemical Design and Magnetic Ordering in Thin Layers of 2D Metal-Organic Frameworks (MOFs). <i>Journal of the American Chemical Society</i> , 2021, 143, 18502-18510.	13.7	22
50	2D magnetic MOFs with micron-lateral size by liquid exfoliation. <i>Chemical Communications</i> , 2020, 56, 7657-7660.	4.1	21
51	Solvent-Free Synthesis of a Pillared Three-Dimensional Coordination Polymer with Magnetic Ordering. <i>Inorganic Chemistry</i> , 2015, 54, 10490-10496.	4.0	19
52	Exploiting Reaction-Diffusion Conditions to Trigger Pathway Complexity in the Growth of a MOF. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15920-15927.	13.8	19
53	A systematic study of the optical properties of mononuclear hybrid organo-inorganic lanthanoid complexes. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 3049-3062.	6.0	18
54	Hybrid Magnetic Superconductors Formed by TaS <sub>2</sub> Layers and Spin Crossover Complexes. <i>Inorganic Chemistry</i> , 2013, 52, 8451-8460.	4.0	17

#	ARTICLE	IF	CITATIONS
55	Gas confinement in compartmentalized coordination polymers for highly selective sorption. <i>Chemical Science</i> , 2017, 8, 3109-3120.	7.4	15
56	Insertion of a $[Fe^{II}(pyimH)_3]^{2+}$ [ $pyimH = 2-(1H-imidazol-2-yl)pyridine$ ] Spin-Crossover Complex Inside a Ferromagnetic Lattice Based on a Chiral 3D Bimetallic Oxalate Network. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2187-2192.	2.0	14
57	Two Consecutive Magneto-Structural Gas-Solid Transformations in Non-Porous Molecular Materials. <i>Chemistry - A European Journal</i> , 2018, 24, 12426-12432.	3.3	14
58	Hybrid organic-inorganic mononuclear lanthanoid single ion magnets. <i>Chemical Communications</i> , 2019, 55, 14992-14995.	4.1	14
59	A Mixed-Ligand Approach for Spin-Crossover Modulation in a Linear $Fe^{II}$ Coordination Polymer. <i>Inorganic Chemistry</i> , 2014, 53, 4482-4490.	4.0	13
60	Tunable crossover between one- and three-dimensional magnetic dynamics in $C_{10}O_2$ single-chain magnets organized by halogen bonding. <i>Physical Review B</i> , 2016, 93, .	3.2	13
61	Sublimable Single Ion Magnets Based on Lanthanoid Quinolate Complexes: The Role of Intermolecular Interactions on Their Thermal Stability. <i>Inorganic Chemistry</i> , 2018, 57, 14170-14177.	4.0	13
62	A thermally/chemically robust and easily regenerable anilato-based ultramicroporous 3D MOF for $CO_2$ uptake and separation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25189-25195.	10.3	13
63	Multivariate sodalite zeolitic imidazolate frameworks: a direct solvent-free synthesis. <i>Chemical Science</i> , 2022, 13, 842-847.	7.4	13
64	Quantum Error Correction with magnetic molecules. <i>Europhysics Letters</i> , 2015, 110, 33001.	2.0	11
65	Hydrogen bonding versus $\pi$ -stacking in ferromagnetic interactions. Studies on a copper triazolopyridine complex. <i>CrystEngComm</i> , 2013, 15, 1836.	2.6	10
66	Implementation of slow magnetic relaxation in a SIM-MOF through a structural rearrangement. <i>Dalton Transactions</i> , 2018, 47, 14734-14740.	3.3	10
67	Influence of interpenetration on the flexibility of $MUV-2$ . <i>CrystEngComm</i> , 2019, 21, 3031-3035.	2.6	10
68	Single-crystal EPR spectroscopy of a $Co(II)$ single-chain magnet. <i>Polyhedron</i> , 2013, 66, 218-221.	2.2	9
69	Interpenetrated Luminescent Metal-Organic Frameworks based on $1H$ -Indazole-5-carboxylic Acid. <i>Crystal Growth and Design</i> , 2020, 20, 4550-4560.	3.0	9
70	MOF-Mediated Synthesis of Supported $Fe$ -Doped $Pd$ Nanoparticles under Mild Conditions for Magnetically Recoverable Catalysis**. <i>Chemistry - A European Journal</i> , 2020, 26, 13659-13667.	3.3	9
71	New dinuclear copper complexes incorporating bis(imidazolyl) based ligands and bidentate-monodentate oxalate bridges. Crystal structure and magnetic properties of $[Cu_2(BIM)_2(C_2O_4)_2] \cdot 4H_2O$ and $[Cu_2(BIK)_2(C_2O_4)_2]$ (BIM=bis(2-imidazolyl)methane), 137-144.	2.2	8
72	Isostructural compartmentalized spin-crossover coordination polymers for gas confinement. <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 808-813.	6.0	8

#	ARTICLE	IF	CITATIONS
73	Single-Crystal-to-Single-Crystal Anion Exchange in a Gadolinium MOF: Incorporation of POMs and [AuCl <sub>4</sub> ] <sup>-</sup> . <i>Polymers</i> , 2016, 8, 171.	4.5	6
74	Use of Alkylarsonium Directing Agents for the Synthesis and Study of Zeolites. <i>Chemistry - A European Journal</i> , 2019, 25, 16390-16396.	3.3	6
75	Near Isotropic <sup>4</sup> D Spin Qubits as Nodes of a Gd(III)-Based Metal-Organic Framework. <i>Inorganic Chemistry</i> , 2021, 60, 8575-8580.	4.0	6
76	A novel coordination polymer with an unusual [3 <sup>-2</sup> ] oblique copper(II) grid: [Cu <sub>2</sub> (HBIMAM) <sub>2</sub> (C <sub>4</sub> O <sub>4</sub> ) <sub>3</sub> (H <sub>2</sub> O) <sub>2</sub> ] <sub>n</sub> ·2nH <sub>2</sub> O [BIMAM=bis(imidazol-2-yl)methylaminomethane]. X-ray structure and magnetic characterization. <i>Polyhedron</i> , 2013, 56, 90-95.	2.2	5
77	Selective CO <sub>2</sub> Sorption Using Compartmentalized Coordination Polymers with Discrete Voids**. <i>Chemistry - A European Journal</i> , 2021, 27, 4653-4659.	3.3	5
78	Slow Relaxation of the Magnetization on Frustrated Triangular Fe(III) Units with S = 1/2 Ground State: The Effect of the Highly Ordered Crystal Lattice and the Counteranions. <i>Crystal Growth and Design</i> , 0, , .	3.0	5
79	Synthesis, Structures, and Solution Studies of a New Class of [Mo <sub>2</sub> O <sub>2</sub> S <sub>2</sub> ]-Based Thiosemicarbazone Coordination Complexes. <i>ACS Omega</i> , 0, , .	3.5	5
80	A rare example of nickel(II) chains based on a heteroscorpionate-like ligand with quadruple imidazolyl interactions. <i>Dalton Transactions</i> , 2014, 43, 11371-11375.	3.3	4
81	Exploiting Reaction-Diffusion Conditions to Trigger Pathway Complexity in the Growth of a MOF. <i>Angewandte Chemie</i> , 2021, 133, 16056-16063.	2.0	1
82	Functionalization using biocompatible carboxylated cyclodextrins of iron-based nanoMIL-100. <i>Polyhedron</i> , 2021, 210, 115509.	2.2	1
83	A fluorinated 2D magnetic coordination polymer. <i>Dalton Transactions</i> , 2022, 51, 1861-1865.	3.3	1
84	Diffraction Studies in Crystal Engineering. , 0, , 241-265.		0
85	Innentitelbild: Exploiting Reaction-Diffusion Conditions to Trigger Pathway Complexity in the Growth of a MOF ( <i>Angew. Chem.</i> 29/2021). <i>Angewandte Chemie</i> , 2021, 133, 15794-15794.	2.0	0
86	In and out: crystal engineering for reversible iodine uptake. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2020, 76, 722-723.	1.1	0