Carlos MartÃ--Gastaldo

List of Publications by Year
in descending order

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115 papers	6,872 citations	71004 43 h-index	71088 80 g-index
126 all docs	126 docs citations	126 times ranked	9442 citing authors

#	Article	IF	Citations
1	An Expanded 2D Fused Aromatic Network with 90â€Ring Hexagons. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
2	Fe-MOF Materials as Precursors for the Catalytic Dehydrogenation of Isobutane. ACS Catalysis, 2022, 12, 3832-3844.	5.5	20
3	Biotemplating of Metalâ€“Organic Framework Nanocrystals for Applications in Smallâ€Scale Robotics. Advanced Functional Materials, 2022, 32, .	7.8	21
4	Tuning the Photocatalytic Activity of Ti-Based Metalâ€“Organic Frameworks through Modulator Defect-Engineered Functionalization. ACS Applied Materials & Interfaces, 2022, 14, 21007-21017.	4.0	17
5	Guest induced reversible onâ€“off switching of elastic frustration in a 3D spin crossover coordination polymer with room temperature hysteretic behaviour. Chemical Science, 2021, 12, 1317-1326.	3.7	36
6	The excellent biocompatibility and negligible immune response of the titanium heterometallic MOF MUV-10. Journal of Materials Chemistry B, 2021, 9, 6144-6148.	2.9	4
7	Understanding charge transport in wavy 2D covalent organic frameworks. Nanoscale, 2021, 13, 6829-6833.	2.8	14
8	Crystalline supramolecular organic frameworks<i>via</i>hydrogen-bonding between nucleobases. Chemical Communications, 2021, 57, 1659-1662.	2.2	9
9	Catalytic activity of a CuGHK peptide-based porous material. Catalysis Science and Technology, 2021, 11, 6053-6057.	2.1	2
10	Linker depletion for missing cluster defects in non-UiO metalâ€“organic frameworks. Chemical Science, 2021, 12, 11839-11844.	3.7	8
11	Effect of modulator connectivity on promoting defectivity in titaniumâ€“organic frameworks. Chemical Science, 2021, 12, 2586-2593.	3.7	13
12	Surfactant-assisted synthesis of titanium nanoMOFs for thin film fabrication. Chemical Communications, 2021, 57, 9040-9043.	2.2	4
13	Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2021, 60, 11868-11873.	7.2	20
14	Ï€â€Interpenetrated 3D Covalent Organic Frameworks from Distorted Polycyclic Aromatic Hydrocarbons. Angewandte Chemie - International Edition, 2021, 60, 9941-9946.	7.2	65
15	Innentitelbild: Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks (Angew. Chem. 21/2021). Angewandte Chemie, 2021, 133, 11638-11638.	1.6	0
16	Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks. Angewandte Chemie, 2021, 133, 11975-11980.	1.6	1
17	Unlocking mixed oxides with unprecedented stoichiometries from heterometallic metal-organic frameworks for the catalytic hydrogenation of CO2. Chem Catalysis, 2021, 1, 364-382.	2.9	18
18	Effect of Linker Distribution in the Photocatalytic Activity of Multivariate Mesoporous Crystals. Journal of the American Chemical Society, 2021, 143, 1798-1806.	6.6	45

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19	Permanent Porosity in Hydroxamate Titaniumâ€“Organic Polyhedra. Journal of the American Chemical Society, 2021, 143, 21195-21199.	6.6	9
20	Heterometallic Titanium-Organic Frameworks as Dual-Metal Catalysts for Synergistic Non-buffered Hydrolysis of Nerve Agent Simulants. CheM, 2020, 6, 3118-3131.	5.8	37
21	Diffusion Control in Single-Site Zinc Reticular Amination Catalysts. Inorganic Chemistry, 2020, 59, 18168-18173.	1.9	2
22	Reversible guest-induced gate-opening with multiplex spin crossover responses in two-dimensional Hofmann clathrates. Chemical Science, 2020, 11, 11224-11234.	3.7	36
23	Epitaxial Thin-Film vs Single Crystal Growth of 2D Hofmann-Type Iron(II) Materials: A Comparative Assessment of their Bi-Stable Spin Crossover Properties. ACS Applied Materials & Interfaces, 2020, 12, 29461-29472.	4.0	16
24	Divergent Adsorption-Dependent Luminescence of Amino-Functionalized Lanthanide Metalâ€“Organic Frameworks for Highly Sensitive NO₂ Sensors. Journal of Physical Chemistry Letters, 2020, 11, 3362-3368.	2.1	50
25	Heterometallic Titaniumâ€“Organic Frameworks by Metal-Induced Dynamic Topological Transformations. Journal of the American Chemical Society, 2020, 142, 6638-6648.	6.6	40
26	Electrical conductivity and magnetic bistability in metalâ€“organic frameworks and coordination polymers: charge transport and spin crossover at the nanoscale. Chemical Society Reviews, 2020, 49, 5601-5638.	18.7	122
27	Growing and Shaping Metalâ€“Organic Framework Single Crystals at the Millimeter Scale. Journal of the American Chemical Society, 2020, 142, 9372-9381.	6.6	32
28	Homochiral Metalâ€“Organic Frameworks for Enantioselective Separations in Liquid Chromatography. Journal of the American Chemical Society, 2019, 141, 14306-14316.	6.6	93
29	Ultrathin Films of 2D Hofmann-Type Coordination Polymers: Influence of Pillaring Linkers on Structural Flexibility and Vertical Charge Transport. Chemistry of Materials, 2019, 31, 7277-7287.	3.2	18
30	Hydroxamate Titaniumâ€“Organic Frameworks and the Effect of Siderophore-Type Linkers over Their Photocatalytic Activity. Journal of the American Chemical Society, 2019, 141, 13124-13133.	6.6	73
31	Integrated Cleanroom Process for the Vapor-Phase Deposition of Large-Area Zeolitic Imidazolate Framework Thin Films. Chemistry of Materials, 2019, 31, 9462-9471.	3.2	52
32	A Wavy Two-Dimensional Covalent Organic Framework from Core-Twisted Polycyclic Aromatic Hydrocarbons. Journal of the American Chemical Society, 2019, 141, 14403-14410.	6.6	63
33	Three dimensional nanoscale analysis reveals aperiodic mesopores in a covalent organic framework and conjugated microporous polymer. Nanoscale, 2019, 11, 2848-2854.	2.8	17
34	Direct Visualization of Pyrrole Reactivity upon Confinement within a Cyclodextrin Metalâ€“Organic Framework. Angewandte Chemie, 2019, 131, 9277-9281.	1.6	5
35	Direct Visualization of Pyrrole Reactivity upon Confinement within a Cyclodextrin Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2019, 58, 9179-9183.	7.2	16
36	<i>De novo</i> synthesis of mesoporous photoactive titanium(<scp>iv</scp>)â€“organic frameworks with MIL-100 topology. Chemical Science, 2019, 10, 4313-4321.	3.7	72

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37	Translocation of Enzymes into a Mesoporous MOF for Enhanced Catalytic Activity Under Extreme Conditions. Chemical Science, 2019, 10, 4082-4088.	3.7	47
38	Effect of nanostructuration on the spin crossover transition in crystalline ultrathin films. Chemical Science, 2019, 10, 4038-4047.	3.7	36
39	Bottomâ€Up Fabrication of Semiconductive Metalâ€"Organic Framework Ultrathin Films. Advanced Materials, 2018, 30, 1704291.	11.1	162
40	Prussian Blue@MoS₂ Layer Composites as Highly Efficient Cathodes for Sodiumâ€•and Potassiumâ€Ion Batteries. Advanced Functional Materials, 2018, 28, 1706125.	7.8	88
41	Origin of the Chemiresistive Response of Ultrathin Films of Conductive Metalâ€"Organic Frameworks. Angewandte Chemie, 2018, 130, 15306-15310.	1.6	27
42	Origin of the Chemiresistive Response of Ultrathin Films of Conductive Metalâ€"Organic Frameworks. Angewandte Chemie - International Edition, 2018, 57, 15086-15090.	7.2	94
43	Implementation of slow magnetic relaxation in a SIM-MOF through a structural rearrangement. Dalton Transactions, 2018, 47, 14734-14740.	1.6	10
44	Surface Functionalization of Metal-Organic Frameworks for Improved Moisture Resistance. Journal of Visualized Experiments, 2018, , .	0.2	2
45	Structural reorganization in a hydrogen-bonded organic framework. New Journal of Chemistry, 2018, 42, 16138-16143.	1.4	5
46	Peptide metalâ€"organic frameworks under pressure: flexible linkers for cooperative compression. Dalton Transactions, 2018, 47, 10654-10659.	1.6	45
47	Chemical Engineering of Photoactivity in Heterometallic Titaniumâ€"Organic Frameworks by Metal Doping. Angewandte Chemie - International Edition, 2018, 57, 8453-8457.	7.2	72
48	Chemical Engineering of Photoactivity in Heterometallic Titaniumâ€"Organic Frameworks by Metal Doping. Angewandte Chemie, 2018, 130, 8589-8593.	1.6	9
49	Peptide Metalâ€"Organic Frameworks for Enantioselective Separation of Chiral Drugs. Journal of the American Chemical Society, 2017, 139, 4294-4297.	6.6	247
50	Surface Functionalization of Metalâ€"Organic Framework Crystals with Catechol Coatings for Enhanced Moisture Tolerance. ACS Applied Materials & Interfaces, 2017, 9, 44641-44648.	4.0	33
51	Spontaneous Magnetization in Heterometallic NiFe-MOF-74 Microporous Magnets by Controlled Iron Doping. Chemistry of Materials, 2017, 29, 6181-6185.	3.2	28
52	Small-pore driven high capacitance in a hierarchical carbon via carbonization of Ni-MOF-74 at low temperatures. Chemical Communications, 2016, 52, 9141-9144.	2.2	51
53	Selective and Efficient Removal of Mercury from Aqueous Media with the Highly Flexible Arms of a BioMOF. Angewandte Chemie, 2016, 128, 11333-11338.	1.6	40
54	Selective and Efficient Removal of Mercury from Aqueous Media with the Highly Flexible Arms of a BioMOF. Angewandte Chemie - International Edition, 2016, 55, 11167-11172.	7.2	158

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55	High-Quality Metalâ€“Organic Framework Ultrathin Films for Electronically Active Interfaces. Journal of the American Chemical Society, 2016, 138, 2576-2584.	6.6	61
56	Hybrid Materials Based on Magnetic Layered Double Hydroxides: A Molecular Perspective. Accounts of Chemical Research, 2015, 48, 1601-1611.	7.6	135
57	Spongeâ€Like Behaviour in Isoreticular Cu(Glyâ€Hisâ€X) Peptideâ€Based Porous Materials. Chemistry - A European Journal, 2015, 21, 16027-16034.	1.7	36
58	Chemical and Structural Stability of Zirconiumâ€based Metalâ€“Organic Frameworks with Large Threeâ€Dimensional Pores by Linker Engineering. Angewandte Chemie - International Edition, 2015, 54, 221-226.	7.2	141
59	Guestâ€Adaptable and Waterâ€Stable Peptideâ€Based Porous Materials by Imidazolate Side Chain Control. Angewandte Chemie - International Edition, 2014, 53, 193-198.	7.2	97
60	Side-chain control of porosity closure in single- and multiple-peptide-based porous materials by cooperative folding. Nature Chemistry, 2014, 6, 343-351.	6.6	124
61	Confined growth of carbon nanoforms in one-dimension by fusion of anthracene rings inside the pores of MCM-41. Nanoscale, 2014, 6, 7981-7990.	2.8	6
62	Photoresponsive Materials: Photo-Switching in a Hybrid Material Made of Magnetic Layered Double Hydroxides Intercalated with Azobenzene Molecules (Adv. Mater. 24/2014). Advanced Materials, 2014, 26, 4188-4188.	11.1	2
63	Charge transfer interactions in self-assembled single walled carbon nanotubes/Dawsonâ€“Wells polyoxometalate hybrids. Chemical Science, 2014, 5, 4346-4354.	3.7	49
64	Photoâ€Switching in a Hybrid Material Made of Magnetic Layered Double Hydroxides Intercalated with Azobenzene Molecules. Advanced Materials, 2014, 26, 4156-4162.	11.1	52
65	Controllable coverage of chemically modified graphene sheets with gold nanoparticles by thermal treatment of graphite oxide with N,N-dimethylformamide. Carbon, 2013, 54, 201-207.	5.4	24
66	Hybrid Magnetic Superconductors Formed by TaS₂ Layers and Spin Crossover Complexes. Inorganic Chemistry, 2013, 52, 8451-8460.	1.9	17
67	Interplay between Chemical Composition and Cation Ordering in the Magnetism of Ni/Fe Layered Double Hydroxides. Inorganic Chemistry, 2013, 52, 10147-10157.	1.9	50
68	Influence of the covalent grafting of organic radicals to graphene on its magnetoresistance. Journal of Materials Chemistry C, 2013, 1, 4590.	2.7	27
69	Single Sublattice Endotaxial Phase Separation Driven by Charge Frustration in a Complex Oxide. Journal of the American Chemical Society, 2013, 135, 10114-10123.	6.6	27
70	Intercalation of cobalt(II)-tetraphenylporphine tetrasulfonate complex in magnetic NiFe-layered double hydroxide. Polyhedron, 2013, 52, 216-221.	1.0	31
71	Illustrating the Processability of Magnetic Layered Double Hydroxides: Layer-by-Layer Assembly of Magnetic Ultrathin Films. Inorganic Chemistry, 2013, 52, 6214-6222.	1.9	17
72	The Use of Polyoxometalates in the Design of Layer-Like Hybrid Salts Containing Cationic Mn4Single-Molecule Magnets. European Journal of Inorganic Chemistry, 2013, 2013, 1903-1909.	1.0	7

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73	Magnetic Nanocomposites Formed by FeNi₃ Nanoparticles Embedded in Graphene. Application as Supercapacitors. Particle and Particle Systems Characterization, 2013, 30, 853-863.	1.2	53
74	Enhanced Stability in Rigid Peptideâ€Based Porous Materials. Angewandte Chemie - International Edition, 2012, 51, 11044-11048.	7.2	85
75	Hybrid Magnetic Multilayers by Intercalation of Cu(II) Phthalocyanine in LDH Hosts. Journal of Physical Chemistry C, 2012, 116, 15756-15764.	1.5	32
76	Graphene electrochemical responses sense surroundings. Electrochimica Acta, 2012, 81, 49-57.	2.6	25
77	Layered double hydroxide (LDH)â€"organic hybrids as precursors for low-temperature chemical synthesis of carbon nanoforms. Chemical Science, 2012, 3, 1481.	3.7	45
78	Influence of the pH on the synthesis of reduced graphene oxide under hydrothermal conditions. Nanoscale, 2012, 4, 3977.	2.8	133
79	Electrostatic Anchoring of Mn₄ Singleâ€Molecule Magnets onto Chemically Modified Multiwalled Carbon Nanotubes. Advanced Functional Materials, 2012, 22, 979-988.	7.8	25
80	Role of Deprotonation and Cu Adatom Migration in Determining the Reaction Pathways of Oxalic Acid Adsorption on Cu(111). Journal of Physical Chemistry C, 2011, 115, 21177-21182.	1.5	22
81	Multifunctionality in hybrid magnetic materials based on bimetallic oxalate complexes. Chemical Society Reviews, 2011, 40, 473.	18.7	296
82	Hybrid Magnetic/Superconducting Materials Obtained by Insertion of a Singleâ€Molecule Magnet into TaS₂ Layers. Advanced Materials, 2011, 23, 5021-5026.	11.1	30
83	Chiral charge order in the superconductor 2H-TaS₂. New Journal of Physics, 2011, 13, 103020.	1.2	45
84	Coexistence of superconductivity and magnetism by chemical design. Nature Chemistry, 2010, 2, 1031-1036.	6.6	141
85	Spin-lattice relaxation via quantum tunneling in anEr3+-polyoxometalate molecular magnet. Physical Review B, 2010, 82, .	1.1	103
86	Confined Growth of Cyanide-Based Magnets in Two Dimensions. Inorganic Chemistry, 2010, 49, 1313-1315.	1.9	33
87	Intercalation of [M(ox)3]3â^' (M=Cr, Rh) complexes into NiIIFeIII-LDH. Applied Clay Science, 2010, 48, 228-234.	2.6	32
88	Polymetallic Oxalate-Based 2D Magnets: Soluble Molecular Precursors for the Nanostructuration of Magnetic Oxides. Journal of the American Chemical Society, 2010, 132, 5456-5468.	6.6	62
89	Intercalation of two-dimensional oxalate-bridged molecule-based magnets into layered double hydroxide hosts. Journal of Materials Chemistry, 2010, 20, 9476.	6.7	26
90	Hexagonal nanosheets from the exfoliation of Ni2+-Fe3+ LDHs: a route towards layered multifunctional materials. Journal of Materials Chemistry, 2010, 20, 7451.	6.7	129

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91	Mononuclear Lanthanide Single Molecule Magnets Based on the Polyoxometalates [Ln(W₅O₁₈)₂]^{9â^’} and [Ln(Î²₂-SiW₁₁O₃₉)₂]^{13â^’}(Ln^{III} =) Tj ETQq1 1 0.7843	1.9	475
92	Design of bimetallic magnetic chains based on oxalate complexes: towards single chain magnets. CrystEngComm, 2009, 11, 2143.	1.3	51
93	Magnetic Properties of Ni^{II}Cr^{III} Layered Double Hydroxide Materials. European Journal of Inorganic Chemistry, 2008, 2008, 5642-5648.	1.0	32
94	Solid-state electrochemistry of LDH-supported polyaniline hybrid inorganicâ€“organic material. Journal of Electroanalytical Chemistry, 2008, 624, 275-286.	1.9	13
95	A neutral 2D oxalate-based soluble magnet assembled by hydrogen bonding interactions. Inorganica Chimica Acta, 2008, 361, 4017-4023.	1.2	21
96	Synthesis, structure and physical characterization of the dimer {[(bpy)2Co]2(TPOA)}4+ (bpy=2,2â€²-dipyridyl; H2TPOA=N,Nâ€²,Nâ€²â€²,Nâ€²â€²â€²-tetraphenyl oxalamidine). Journal of Molecular Structure, 2008, 890, 272-276.	1.8	1
97	A Co2O2 metallacycle exclusively supported by l-valine. Solid State Sciences, 2008, 10, 1800-1803.	1.5	4
98	Mononuclear Lanthanide Single-Molecule Magnets Based on Polyoxometalates. Journal of the American Chemical Society, 2008, 130, 8874-8875.	6.6	814
99	Spontaneous Magnetization in Niâ^’Al and Niâ^’Fe Layered Double Hydroxides. Inorganic Chemistry, 2008, 47, 9103-9110.	1.9	82
100	Self-Assembly of a Copper(II)-Based Metallosupramolecular Hexagon. Inorganic Chemistry, 2008, 47, 5197-5203.	1.9	49
101	Single Chain Magnets Based on the Oxalate Ligand. Journal of the American Chemical Society, 2008, 130, 14987-14989.	6.6	127
102	Oxalate-Based Soluble 2D Magnets: The Series [K(18-crown-6)]₃[M^{II}₃(H₂O)₄{M^{III}(ox)₃}<s (M^{III} = Cr, Fe; M^{II} = Mn, Fe, Ni, Co, Cu; ox =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 Td (C₂O<	1.9	23
103	Crystal Engineering of Multifunctional Molecular Materials. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 173-191.	0.2	7
104	A â€œCation-lessâ€•Oxalate-Based Ferromagnet Formed by Neutral Bimetallic Layers:â€‰ {[Co(H₂O)₂]₃[Cr(ox)₃]₂(18-crown-6)₂}_{â^ž} (ox = Oxalate Dianion; 18-crown-6 = C₁₂H₂₄O₆). Inorganic Chemistry, 2007, 46, 8108-8110.	1.9	30
105	Supramolecular stabilization of the phosphite-based polyoxomolybdate [Mo6(PO3)(HPO3)3O18]9â^’. Polyhedron, 2007, 26, 626-630.	1.0	7
106	Controlling the dimensionality of oxalate-based bimetallic complexes: The ferromagnetic chain {[K(18-crown-6)][Mn(bpy)Cr(ox)3]}â^ž(18-crown-6=C12H24O6, , bpy=C10H8N2). Polyhedron, 2007, 26, 2101-2104.	1.0	15
107	Magnetic molecular nanostructures: Design of magnetic molecular materials as monolayers, multilayers and thin films. Applied Surface Science, 2007, 254, 225-235.	3.1	19
108	Heptacoordinated MnIIin oxalate-based bimetallic 2D magnets: synthesis and characterisation of [Mn(L)6][Mn(CH3OH)MIII(ox)3]2(MIII= Cr, Rh; ox = oxalate dianion; L = H2O, CH3OH). Dalton Transactions, 2006, , 3294-3299.	1.6	30

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109	Insertion of Magnetic Bimetallic Oxalate Complexes into Layered Double Hydroxides. Chemistry of Materials, 2006, 18, 6112-6114.	3.2	32
110	Oxalate-based 2D magnets: the series [NBu4][MIIMnIII(ox)3] (MII= Fe, Co, Ni, Zn; ox = oxalate dianion). Journal of Materials Chemistry, 2006, 16, 2685-2689.	6.7	110
111	Synthesis and Characterization of a Soluble Bimetallic Oxalate-Based Bidimensional Magnet:Â [K(18-crown-6)]3[Mn3(H2O)4{Cr(ox)3}3]. Inorganic Chemistry, 2006, 45, 1882-1884.	1.9	46
112	Reversible Colorimetric Probes for Mercury Sensing. Journal of the American Chemical Society, 2005, 127, 12351-12356.	6.6	318
113	Synthesis, Structure, and Magnetic Properties of the Oxalate-Based Bimetallic Ferromagnetic Chain {[K(18-crown-6)][Mn(H2O)2Cr(ox)3]}âˆž(18-crown-6 = C12H24O6, ox = C2O42-). Inorganic Chemistry, 2005, 44, 6197-6202.	1.9	56
114	Heterometallic Titanium-Organic Frameworks as Dual Metal Catalysts for Synergistic Non-Buffered Hydrolysis of Nerve Agent Simulants. SSRN Electronic Journal, 0, , .	0.4	2
115	An Expanded 2D Fused Aromatic Network with 90â€Ring Hexagons. Angewandte Chemie, 0, , .	1.6	0