Carlos MartÃ--Gastaldo

List of Publications by Year
in descending order

115 papers	6,872 citations	61984 43 h-index	62596 80 g-index
126 all docs	126 docs citations	126 times ranked	8399 citing authors

#	Article	IF	Citations
1	Mononuclear Lanthanide Single-Molecule Magnets Based on Polyoxometalates. Journal of the American Chemical Society, 2008, 130, 8874-8875.	13.7	814
2	Mononuclear Lanthanide Single Molecule Magnets Based on the Polyoxometalates [Ln(W₅O₁₈)₂]^{9â^’} and [Ln(Î²₂-SiW₁₁O₃₉)₂]^{13â^’}(Ln^{III} =) Tj ETQq0 0 0 rgBT /Ov	4.0	475
3	Reversible Colorimetric Probes for Mercury Sensing. Journal of the American Chemical Society, 2005, 127, 12351-12356.	13.7	318
4	Multifunctionality in hybrid magnetic materials based on bimetallic oxalate complexes. Chemical Society Reviews, 2011, 40, 473.	38.1	296
5	Peptide Metalâ€"Organic Frameworks for Enantioselective Separation of Chiral Drugs. Journal of the American Chemical Society, 2017, 139, 4294-4297.	13.7	247
6	Bottomâ€Up Fabrication of Semiconductive Metalâ€"Organic Framework Ultrathin Films. Advanced Materials, 2018, 30, 1704291.	21.0	162
7	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.	13.8	158
8	Coexistence of superconductivity and magnetism by chemical design. Nature Chemistry, 2010, 2, 1031-1036.	13.6	141
9	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.	13.8	141
10	Hybrid Materials Based on Magnetic Layered Double Hydroxides: A Molecular Perspective. Accounts of Chemical Research, 2015, 48, 1601-1611.	15.6	135
11	Influence of the pH on the synthesis of reduced graphene oxide under hydrothermal conditions. Nanoscale, 2012, 4, 3977.	5.6	133
12	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
13	Single Chain Magnets Based on the Oxalate Ligand. Journal of the American Chemical Society, 2008, 130, 14987-14989.	13.7	127
14	Side-chain control of porosity closure in single- and multiple-peptide-based porous materials by cooperative folding. Nature Chemistry, 2014, 6, 343-351.	13.6	124
15	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.	38.1	122
16	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
17	Spin-lattice relaxation via quantum tunneling in anEr3+-polyoxometalate molecular magnet. Physical Review B, 2010, 82, .	3.2	103
18	Guestâ€Adaptable and Waterâ€Stable Peptideâ€Based Porous Materials by Imidazolate Side Chain Control. Angewandte Chemie - International Edition, 2014, 53, 193-198.	13.8	97

#	Article	IF	Citations
19	Origin of the Chemiresistive Response of Ultrathin Films of Conductive Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2018, 57, 15086-15090.	13.8	94
20	Homochiral Metalâ€“Organic Frameworks for Enantioselective Separations in Liquid Chromatography. Journal of the American Chemical Society, 2019, 141, 14306-14316.	13.7	93
21	Prussian Blue@MoS₂ Layer Composites as Highly Efficient Cathodes for Sodiumâ€•and Potassiumâ€•Ion Batteries. Advanced Functional Materials, 2018, 28, 1706125.	14.9	88
22	Enhanced Stability in Rigid Peptideâ€•Based Porous Materials. Angewandte Chemie - International Edition, 2012, 51, 11044-11048.	13.8	85
23	Spontaneous Magnetization in Niâˆ'Al and Niâˆ'Fe Layered Double Hydroxides. Inorganic Chemistry, 2008, 47, 9103-9110.	4.0	82
24	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.	13.7	73
25	Chemical Engineering of Photoactivity in Heterometallic Titaniumâ€“Organic Frameworks by Metal Doping. Angewandte Chemie - International Edition, 2018, 57, 8453-8457.	13.8	72
26	<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.	7.4	72
27	Ï€â€•Interpenetrated 3D Covalent Organic Frameworks from Distorted Polycyclic Aromatic Hydrocarbons. Angewandte Chemie - International Edition, 2021, 60, 9941-9946.	13.8	65
28	A Wavy Two-Dimensional Covalent Organic Framework from Core-Twisted Polycyclic Aromatic Hydrocarbons. Journal of the American Chemical Society, 2019, 141, 14403-14410.	13.7	63
29	Polymetallic Oxalate-Based 2D Magnets: Soluble Molecular Precursors for the Nanostructuration of Magnetic Oxides. Journal of the American Chemical Society, 2010, 132, 5456-5468.	13.7	62
30	High-Quality Metalâ€“Organic Framework Ultrathin Films for Electronically Active Interfaces. Journal of the American Chemical Society, 2016, 138, 2576-2584.	13.7	61
31	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.	4.0	56
32	Magnetic Nanocomposites Formed by FeNi₃ Nanoparticles Embedded in Graphene. Application as Supercapacitors. Particle and Particle Systems Characterization, 2013, 30, 853-863.	2.3	53
33	Photoâ€•Switching in a Hybrid Material Made of Magnetic Layered Double Hydroxides Intercalated with Azobenzene Molecules. Advanced Materials, 2014, 26, 4156-4162.	21.0	52
34	Integrated Cleanroom Process for the Vapor-Phase Deposition of Large-Area Zeolitic Imidazolate Framework Thin Films. Chemistry of Materials, 2019, 31, 9462-9471.	6.7	52
35	Design of bimetallic magnetic chains based on oxalate complexes: towards single chain magnets. CrystEngComm, 2009, 11, 2143.	2.6	51
36	Small-pore driven high capacitance in a hierarchical carbon via carbonization of Ni-MOF-74 at low temperatures. Chemical Communications, 2016, 52, 9141-9144.	4.1	51

#	Article	IF	Citations
37	Interplay between Chemical Composition and Cation Ordering in the Magnetism of Ni/Fe Layered Double Hydroxides. Inorganic Chemistry, 2013, 52, 10147-10157.	4.0	50
38	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.	4.6	50
39	Self-Assembly of a Copper(II)-Based Metallosupramolecular Hexagon. Inorganic Chemistry, 2008, 47, 5197-5203.	4.0	49
40	Charge transfer interactions in self-assembled single walled carbon nanotubes/Dawsonâ€"Wells polyoxometalate hybrids. Chemical Science, 2014, 5, 4346-4354.	7.4	49
41	Translocation of Enzymes into a Mesoporous MOF for Enhanced Catalytic Activity Under Extreme Conditions. Chemical Science, 2019, 10, 4082-4088.	7.4	47
42	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.	4.0	46
43	Chiral charge order in the superconductor 2H-TaS₂. New Journal of Physics, 2011, 13, 103020.	2.9	45
44	Layered double hydroxide (LDH)â€"organic hybrids as precursors for low-temperature chemical synthesis of carbon nanoforms. Chemical Science, 2012, 3, 1481.	7.4	45
45	Peptide metalâ€"organic frameworks under pressure: flexible linkers for cooperative compression. Dalton Transactions, 2018, 47, 10654-10659.	3.3	45
46	Effect of Linker Distribution in the Photocatalytic Activity of Multivariate Mesoporous Crystals. Journal of the American Chemical Society, 2021, 143, 1798-1806.	13.7	45
47	Selective and Efficient Removal of Mercury from Aqueous Media with the Highly Flexible Arms of a BioMOF. Angewandte Chemie, 2016, 128, 11333-11338.	2.0	40
48	Heterometallic Titaniumâ€"Organic Frameworks by Metal-Induced Dynamic Topological Transformations. Journal of the American Chemical Society, 2020, 142, 6638-6648.	13.7	40
49	Heterometallic Titanium-Organic Frameworks as Dual-Metal Catalysts for Synergistic Non-buffered Hydrolysis of Nerve Agent Simulants. CheM, 2020, 6, 3118-3131.	11.7	37
50	Spongeâ€Like Behaviour in Isoreticular Cu(Glyâ€Hisâ€X) Peptideâ€Based Porous Materials. Chemistry - A European Journal, 2015, 21, 16027-16034.	3.3	36
51	Effect of nanostructuration on the spin crossover transition in crystalline ultrathin films. Chemical Science, 2019, 10, 4038-4047.	7.4	36
52	Reversible guest-induced gate-opening with multiplex spin crossover responses in two-dimensional Hofmann clathrates. Chemical Science, 2020, 11, 11224-11234.	7.4	36
53	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.	7.4	36
54	Confined Growth of Cyanide-Based Magnets in Two Dimensions. Inorganic Chemistry, 2010, 49, 1313-1315.	4.0	33

#	ARTICLE	IF	CITATIONS
55	Surface Functionalization of Metalâ€“Organic Framework Crystals with Catechol Coatings for Enhanced Moisture Tolerance. ACS Applied Materials & Interfaces, 2017, 9, 44641-44648.	8.0	33
56	Insertion of Magnetic Bimetallic Oxalate Complexes into Layered Double Hydroxides. Chemistry of Materials, 2006, 18, 6112-6114.	6.7	32
57	Magnetic Properties of Ni^{II}Cr^{III} Layered Double Hydroxide Materials. European Journal of Inorganic Chemistry, 2008, 2008, 5642-5648.	2.0	32
58	Intercalation of [M(ox)3]3â˜ (M=Cr, Rh) complexes into NiIIFeIII-LDH. Applied Clay Science, 2010, 48, 228-234.	5.2	32
59	Hybrid Magnetic Multilayers by Intercalation of Cu(II) Phthalocyanine in LDH Hosts. Journal of Physical Chemistry C, 2012, 116, 15756-15764.	3.1	32
60	Growing and Shaping Metalâ€“Organic Framework Single Crystals at the Millimeter Scale. Journal of the American Chemical Society, 2020, 142, 9372-9381.	13.7	32
61	Intercalation of cobalt(II)-tetraphenylporphine tetrasulfonate complex in magnetic NiFe-layered double hydroxide. Polyhedron, 2013, 52, 216-221.	2.2	31
62	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.	3.3	30
63	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}_{âˆž} (ox = Oxalate Dianion; 18-crown-6 = C₁₂H₂₄O₆). Inorganic Chemistry, 2007, 46, 8108-8110.	4.0	30
64	Hybrid Magnetic/Superconducting Materials Obtained by Insertion of a Singleâ€Molecule Magnet into TaS₂ Layers. Advanced Materials, 2011, 23, 5021-5026.	21.0	30
65	Spontaneous Magnetization in Heterometallic NiFe-MOF-74 Microporous Magnets by Controlled Iron Doping. Chemistry of Materials, 2017, 29, 6181-6185.	6.7	28
66	Influence of the covalent grafting of organic radicals to graphene on its magnetoresistance. Journal of Materials Chemistry C, 2013, 1, 4590.	5.5	27
67	Single Sublattice Endotaxial Phase Separation Driven by Charge Frustration in a Complex Oxide. Journal of the American Chemical Society, 2013, 135, 10114-10123.	13.7	27
68	Origin of the Chemiresistive Response of Ultrathin Films of Conductive Metalâ€“Organic Frameworks. Angewandte Chemie, 2018, 130, 15306-15310.	2.0	27
69	Intercalation of two-dimensional oxalate-bridged molecule-based magnets into layered double hydroxide hosts. Journal of Materials Chemistry, 2010, 20, 9476.	6.7	26
70	Graphene electrochemical responses sense surroundings. Electrochimica Acta, 2012, 81, 49-57.	5.2	25
71	Electrostatic Anchoring of Mn₄ Singleâ€Molecule Magnets onto Chemically Modified Multiwalled Carbon Nanotubes. Advanced Functional Materials, 2012, 22, 979-988.	14.9	25
72	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.	10.3	24

#	Article	IF	Citations
73	Oxalate-Based Soluble 2D Magnets: The Series [K(18-crown-6)]₃[M^{II}₃(H₂O)₄{M^{III}(ox)₃} (M^{III} = Cr, Fe; M^{II} = Mn, Fe, Ni, Co, Cu; ox =) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50.737 Td (C<sub>2	4.0	23
74	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.	3.1	22
75	A neutral 2D oxalate-based soluble magnet assembled by hydrogen bonding interactions. Inorganica Chimica Acta, 2008, 361, 4017-4023.	2.4	21
76	Biotemplating of Metalâ€“Organic Framework Nanocrystals for Applications in Smallâ€Scale Robotics. Advanced Functional Materials, 2022, 32, .	14.9	21
77	Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2021, 60, 11868-11873.	13.8	20
78	Fe-MOF Materials as Precursors for the Catalytic Dehydrogenation of Isobutane. ACS Catalysis, 2022, 12, 3832-3844.	11.2	20
79	Magnetic molecular nanostructures: Design of magnetic molecular materials as monolayers, multilayers and thin films. Applied Surface Science, 2007, 254, 225-235.	6.1	19
80	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.	6.7	18
81	Unlocking mixed oxides with unprecedented stoichiometries from heterometallic metal-organic frameworks for the catalytic hydrogenation of CO2. Chem Catalysis, 2021, 1, 364-382.	6.1	18
82	Hybrid Magnetic Superconductors Formed by TaS₂ Layers and Spin Crossover Complexes. Inorganic Chemistry, 2013, 52, 8451-8460.	4.0	17
83	Illustrating the Processability of Magnetic Layered Double Hydroxides: Layer-by-Layer Assembly of Magnetic Ultrathin Films. Inorganic Chemistry, 2013, 52, 6214-6222.	4.0	17
84	Three dimensional nanoscale analysis reveals aperiodic mesopores in a covalent organic framework and conjugated microporous polymer. Nanoscale, 2019, 11, 2848-2854.	5.6	17
85	Tuning the Photocatalytic Activity of Ti-Based Metalâ€“Organic Frameworks through Modulator Defect-Engineered Functionalization. ACS Applied Materials & Interfaces, 2022, 14, 21007-21017.	8.0	17
86	Direct Visualization of Pyrrole Reactivity upon Confinement within a Cyclodextrin Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2019, 58, 9179-9183.	13.8	16
87	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.	8.0	16
88	Controlling the dimensionality of oxalate-based bimetallic complexes: The ferromagnetic chain {[K(18-crown-6)][Mn(bpy)Cr(ox)3]}âˆž(18-crown-6=C12H24O6, , bpy=C10H8N2). Polyhedron, 2007, 26, 2101-2104.	2.2	15
89	Understanding charge transport in wavy 2D covalent organic frameworks. Nanoscale, 2021, 13, 6829-6833.	5.6	14
90	An Expanded 2D Fused Aromatic Network with 90â€Ring Hexagons. Angewandte Chemie - International Edition, 2022, 61, .	13.8	14

#	Article	IF	Citations
91	Solid-state electrochemistry of LDH-supported polyaniline hybrid inorganicâ€“organic material. Journal of Electroanalytical Chemistry, 2008, 624, 275-286.	3.8	13
92	Effect of modulator connectivity on promoting defectivity in titaniumâ€“organic frameworks. Chemical Science, 2021, 12, 2586-2593.	7.4	13
93	Implementation of slow magnetic relaxation in a SIM-MOF through a structural rearrangement. Dalton Transactions, 2018, 47, 14734-14740.	3.3	10
94	Chemical Engineering of Photoactivity in Heterometallic Titaniumâ€“Organic Frameworks by Metal Doping. Angewandte Chemie, 2018, 130, 8589-8593.	2.0	9
95	Crystalline supramolecular organic frameworks<i>via</i>hydrogen-bonding between nucleobases. Chemical Communications, 2021, 57, 1659-1662.	4.1	9
96	Permanent Porosity in Hydroxamate Titaniumâ€“Organic Polyhedra. Journal of the American Chemical Society, 2021, 143, 21195-21199.	13.7	9
97	Linker depletion for missing cluster defects in non-UiO metalâ€“organic frameworks. Chemical Science, 2021, 12, 11839-11844.	7.4	8
98	Supramolecular stabilization of the phosphite-based polyoxomolybdate [Mo6(PO3)(HPO3)3O18]9âˆ'. Polyhedron, 2007, 26, 626-630.	2.2	7
99	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.	2.0	7
100	Crystal Engineering of Multifunctional Molecular Materials. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 173-191.	0.3	7
101	Confined growth of carbon nanoforms in one-dimension by fusion of anthracene rings inside the pores of MCM-41. Nanoscale, 2014, 6, 7981-7990.	5.6	6
102	Structural reorganization in a hydrogen-bonded organic framework. New Journal of Chemistry, 2018, 42, 16138-16143.	2.8	5
103	Direct Visualization of Pyrrole Reactivity upon Confinement within a Cyclodextrin Metalâ€“Organic Framework. Angewandte Chemie, 2019, 131, 9277-9281.	2.0	5
104	A Co2O2 metallacycle exclusively supported by l-valine. Solid State Sciences, 2008, 10, 1800-1803.	3.2	4
105	The excellent biocompatibility and negligible immune response of the titanium heterometallic MOF MUV-10. Journal of Materials Chemistry B, 2021, 9, 6144-6148.	5.8	4
106	Surfactant-assisted synthesis of titanium nanoMOFs for thin film fabrication. Chemical Communications, 2021, 57, 9040-9043.	4.1	4
107	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.	21.0	2
108	Surface Functionalization of Metal-Organic Frameworks for Improved Moisture Resistance. Journal of Visualized Experiments, 2018, , .	0.3	2

#	Article	IF	Citations
109	Diffusion Control in Single-Site Zinc Reticular Amination Catalysts. Inorganic Chemistry, 2020, 59, 18168-18173.	4.0	2
110	Catalytic activity of a CuGHK peptide-based porous material. Catalysis Science and Technology, 2021, 11, 6053-6057.	4.1	2
111	Heterometallic Titanium-Organic Frameworks as Dual Metal Catalysts for Synergistic Non-Buffered Hydrolysis of Nerve Agent Simulants. SSRN Electronic Journal, 0, , .	0.4	2
112	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.	3.6	1
113	Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks. Angewandte Chemie, 2021, 133, 11975-11980.	2.0	1
114	Innentitelbild: Selective Implantation of Diamines for Cooperative Catalysis in Isoreticular Heterometallic Titaniumâ€“Organic Frameworks (Angew. Chem. 21/2021). Angewandte Chemie, 2021, 133, 11638-11638.	2.0	0
115	An Expanded 2D Fused Aromatic Network with 90â€Ring Hexagons. Angewandte Chemie, 0, , .	2.0	0