Matteo Mannini

List of Publications by Year
in descending order

123 papers	5,892 citations	101384 36 h-index	76769 74 g-index
131 all docs	131 docs citations	131 times ranked	4999 citing authors

#	Article	IF	Citations
1	Magnetic memory of a single-molecule quantum magnet wired to a gold surface. Nature Materials, 2009, 8, 194-197.	13.3	999
2	Quantum tunnelling of the magnetization in a monolayer of oriented single-molecule magnets. Nature, 2010, 468, 417-421.	13.7	574
3	Chemical strategies and characterization tools for the organization of single molecule magnets on surfaces. Chemical Society Reviews, 2011, 40, 3076.	18.7	247
4	Giant field dependence of the low temperature relaxation of the magnetization in a dysprosium(iii)â€“DOTA complex. Chemical Communications, 2011, 47, 3751.	2.2	204
5	Strong magneto-chiral dichroism in a paramagnetic molecular helix observed by hard X-rays. Nature Physics, 2015, 11, 69-74.	6.5	187
6	Temperature- and Light-Induced Spin Crossover Observed by X-ray Spectroscopy on Isolated Fe(II) Complexes on Gold. Journal of Physical Chemistry Letters, 2013, 4, 1546-1552.	2.1	144
7	Quantum coherence in a processable vanadyl complex: new tools for the search of molecular spin qubits. Chemical Science, 2016, 7, 2074-2083.	3.7	144
8	XAS and XMCD Investigation of Mn₁₂ Monolayers on Gold. Chemistry - A European Journal, 2008, 14, 7530-7535.	1.7	122
9	Organizing and Addressing Magnetic Molecules. Inorganic Chemistry, 2009, 48, 3408-3419.	1.9	122
10	Xâ€Ray Detected Magnetic Hysteresis of Thermally Evaporated Terbium Doubleâ€Decker Oriented Films. Advanced Materials, 2010, 22, 5488-5493.	11.1	122
11	Magnetic behaviour of TbPc2 single-molecule magnets chemically grafted on silicon surface. Nature Communications, 2014, 5, 4582.	5.8	115
12	Softâ€Xâ€rayâ€Induced Redox Isomerism in a Cobalt Dioxolene Complex. Angewandte Chemie - International Edition, 2010, 49, 1954-1957.	7.2	89
13	Isolated single-molecule magnets on native gold. Chemical Communications, 2005, , 1640.	2.2	86
14	Xâ€Ray Magnetic Circular Dichroism Picks out Singleâ€Molecule Magnets Suitable for Nanodevices. Advanced Materials, 2009, 21, 167-171.	11.1	83
15	Temperature and pH sensors based on graphenic materials. Biosensors and Bioelectronics, 2017, 91, 870-877.	5.3	83
16	Magnetoâ€Optical Investigations of Nanostructured Materials Based on Singleâ€Molecule Magnets Monitor Strong Environmental Effects. Advanced Materials, 2007, 19, 3906-3911.	11.1	78
17	Preparation of Novel Materials Using SMMs. , 0, , 133-161.		77
18	Molecular magnetism, status and perspectives. Solid State Sciences, 2008, 10, 1701-1709.	1.5	75

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19	Self-Assembled Organic Radicals on Au(111) Surfaces: A Combined ToF-SIMS, STM, and ESR Study. Langmuir, 2007, 23, 2389-2397.	1.6	73
20	Advances in Single-Molecule Magnet Surface Patterning through Microcontact Printing. Nano Letters, 2005, 5, 1435-1438.	4.5	72
21	Tunable Spinâ€“Superconductor Coupling of Spin 1/2 Vanadyl Phthalocyanine Molecules. Nano Letters, 2018, 18, 7955-7961.	4.5	72
22	Ordering Magnetic Molecules within Nanoporous Crystalline Polymers. Chemistry of Materials, 2009, 21, 4750-4752.	3.2	69
23	Erratic magnetic hysteresis of TbPc2 molecular nanomagnets. Journal of Materials Chemistry C, 2013, 1, 2935.	2.7	66
24	Magnetic Bistability in a Submonolayer of Sublimated Fe₄ Single-Molecule Magnets. Nano Letters, 2015, 15, 535-541.	4.5	63
25	Quantum dynamics of a single molecule magnet on superconducting Pb(111). Nature Materials, 2020, 19, 546-551.	13.3	62
26	Thermal Deposition of Intact Tetrairon(III) Singleâ€Molecule Magnets in Highâ€Vacuum Conditions. Small, 2009, 5, 1460-1466.	5.2	58
27	Magnetic fingerprint of individual Fe4 molecular magnets under compression by a scanning tunnelling microscope. Nature Communications, 2015, 6, 8216.	5.8	56
28	Magnetic and Spectroscopic Investigation of Thermally and Optically Driven Valence Tautomerism in Thioether-Bridged Dinuclear Cobaltâ€“Dioxolene Complexes. Inorganic Chemistry, 2013, 52, 11798-11805.	1.9	55
29	Magnetism of TbPc2 SMMs on ferromagnetic electrodes used in organic spintronics. Chemical Communications, 2013, 49, 11506.	2.2	53
30	Spin noise fluctuations from paramagnetic molecular adsorbates on surfaces. Journal of Applied Physics, 2007, 101, 053916.	1.1	48
31	Spin Structure of Surface-Supported Single-Molecule Magnets from Isomorphous Replacement and X-ray Magnetic Circular Dichroism. Inorganic Chemistry, 2011, 50, 2911-2917.	1.9	47
32	Thermal and optical control of electronic states in a single layer of switchable paramagnetic molecules. Chemical Science, 2015, 6, 2268-2274.	3.7	46
33	Robust Magnetic Properties of a Sublimable Single-Molecule Magnet. ACS Nano, 2016, 10, 5663-5669.	7.3	46
34	Room temperature control of spin states in a thin film of a photochromic iron(<scp>ii</scp>) complex. Materials Horizons, 2018, 5, 506-513.	6.4	43
35	Self-sorting chiral organogels from a long chain carbamate of 1-benzyl-pyrrolidine-3,4-diol. Soft Matter, 2010, 6, 1655.	1.2	40
36	One-step covalent grafting of Fe4single-molecule magnet monolayers on gold. Chemical Communications, 2011, 47, 1467-1469.	2.2	38

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37	Depth-Dependent Spin Dynamics in Thin Films of TbPc₂ Nanomagnets Explored by Low-Energy Implanted Muons. ACS Nano, 2012, 6, 8390-8396.	7.3	38
38	MÃ¶ssbauer spectroscopy of a monolayer of single molecule magnets. Nature Communications, 2018, 9, 480.	5.8	37
39	Nanoscale Assembly of Paramagnetic Organic Radicals on Au(111) Single Crystals. Chemistry - A European Journal, 2013, 19, 3445-3450.	1.7	36
40	Chiral Supramolecular Nanotubes of Singleâ€Chain Magnets. Angewandte Chemie - International Edition, 2020, 59, 780-784.	7.2	36
41	Deposition of intact tetrairon(iii) single molecule magnet monolayers on gold: an STM, XPS, and ToF-SIMS investigation. Journal of Materials Chemistry, 2010, 20, 187-194.	6.7	35
42	Solvent Effects on the Adsorption and Self-Organization of Mn12 on Au(111). Langmuir, 2007, 23, 11836-11843.	1.6	34
43	Tuning of a Vertical Spin Valve with a Monolayer of Single Molecule Magnets. Advanced Functional Materials, 2017, 27, 1703600.	7.8	34
44	An Organic Spin Valve Embedding a Selfâ€Assembled Monolayer of Organic Radicals. Advanced Materials Interfaces, 2016, 3, 1500855.	1.9	32
45	Magnetic bistability of a TbPc2 submonolayer on a graphene/SiC(0001) conductive electrode. Nanoscale, 2018, 10, 2715-2720.	2.8	32
46	Vanadyl phthalocyanines on graphene/SiC(0001): toward a hybrid architecture for molecular spin qubits. Nanoscale Horizons, 2019, 4, 1202-1210.	4.1	32
47	Grafting Single Molecule Magnets on Gold Nanoparticles. Small, 2014, 10, 323-329.	5.2	31
48	Thermal and light-induced spin transition in a nanometric film of a new high-vacuum processable spin crossover complex. Journal of Materials Chemistry C, 2018, 6, 8885-8889.	2.7	31
49	A new approach to the synthesis of heteronuclear propeller-like single molecule magnets. Dalton Transactions, 2013, 42, 4416.	1.6	30
50	Room temperature amine sensors enabled by sidewall functionalization of single-walled carbon nanotubes. RSC Advances, 2018, 8, 5578-5585.	1.7	30
51	Addressing individual paramagnetic molecules through ESN-STM. Inorganica Chimica Acta, 2007, 360, 3837-3842.	1.2	28
52	Enhanced Vapor-Phase Processing in Fluorinated Fe₄ Single-Molecule Magnets. Inorganic Chemistry, 2013, 52, 5897-5905.	1.9	28
53	Low-Temperature Magnetic Force Microscopy on Single Molecule Magnet-Based Microarrays. Nano Letters, 2017, 17, 1899-1905.	4.5	28
54	Palladium-nanoparticles on end-functionalized poly(lactic acid)-based stereocomplexes for the chemoselective cinnamaldehyde hydrogenation: Effect of the end-group. Journal of Catalysis, 2015, 330, 187-196.	3.1	27

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55	Enhancement of the Magnetic Coupling in Exfoliated CrCl₃ Crystals Observed by Lowâ€Temperature Magnetic Force Microscopy and Xâ€ray Magnetic Circular Dichroism. Advanced Materials, 2020, 32, e2000566.	11.1	26
56	Towards the detection of single polychlorotriphenylmethyl radical derivatives by means of Electron Spin Noise STM. Solid State Sciences, 2009, 11, 956-960.	1.5	25
57	Towards a general organogelator: combining a versatile scaffold and an efficient linking process. Soft Matter, 2009, 5, 1863.	1.2	25
58	Valence electronic structure of sublimated Fe₄single-molecule magnets: an experimental and theoretical characterization. Journal of Materials Chemistry C, 2014, 2, 9599-9608.	2.7	25
59	Propellerâ€Shaped Fe₄ and Fe₃M Molecular Nanomagnets: A Journey from Crystals to Addressable Single Molecules. European Journal of Inorganic Chemistry, 2019, 2019, 552-568.	1.0	25
60	A Combined Ion Scattering, Photoemission, and DFT Investigation on the Termination Layer of a La_{0.7}Sr_{0.3}MnO₃ Spin Injecting Electrode. Journal of Physical Chemistry C, 2014, 118, 13631-13637.	1.5	23
61	Molecular Order in Buried Layers of TbPc₂ Singleâ€Molecule Magnets Detected by Torque Magnetometry. Advanced Materials, 2016, 28, 6946-6951.	11.1	22
62	Xâ€ray Absorption Spectroscopy as a Probe of Photoâ€and Thermally Induced Valence Tautomeric Transition in a 1:1 Cobaltâ€“Dioxolene Complex. ChemPhysChem, 2009, 10, 2090-2095.	1.0	21
63	Tetrairon(III) Single-Molecule Magnet Monolayers on Gold: Insights from ToF-SIMS and Isotopic Labeling. Langmuir, 2014, 30, 8645-8649.	1.6	21
64	A slow relaxing species for molecular spin devices: EPR characterization of static and dynamic magnetic properties of a nitronyl nitroxide radical. Journal of Materials Chemistry, 2012, 22, 22272.	6.7	20
65	Surface effects on a photochromic spin-crossover iron(ii) molecular switch adsorbed on highly oriented pyrolytic graphite. Nanoscale, 2019, 11, 20006-20014.	2.8	20
66	Onâ€Surface Magnetometry: The Evaluation of Superexchange Coupling Constants in Surfaceâ€Wired Singleâ€Molecule Magnets. Chemistry - A European Journal, 2013, 19, 16902-16905.	1.7	18
67	Single-Molecule Magnets on Surfaces. Structure and Bonding, 2014, , 293-330.	1.0	18
68	Enhanced hydrogen photogeneration by bulk g-C₃N₄ through a simple and efficient oxidation route. Dalton Transactions, 2018, 47, 6772-6778.	1.6	18
69	Chemical tailoring of Single Molecule Magnet behavior in films of Dy(III) dimers. Applied Surface Science, 2018, 432, 7-14.	3.1	18
70	Selfâ€Assembly of TbPc₂ Singleâ€Molecule Magnets on Surface through Multiple Hydrogen Bonding. Small, 2018, 14, 1702572.	5.2	17
71	Patterned monolayers of nitronyl nitroxide radicals. Inorganica Chimica Acta, 2008, 361, 3525-3528.	1.2	16
72	Plasmon-enhanced magneto-optical detection of single-molecule magnets. Materials Horizons, 2019, 6, 1148-1155.	6.4	16

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73	Core-Hole Screening, Electronic Structure, and Paramagnetic Character in Thin Films of Organic Radicals Deposited on SiO₂/Si(111). Journal of Physical Chemistry C, 2014, 118, 8044-8049.	1.5	15
74	Isotope effects on the spin dynamics of single-molecule magnets probed using muon spin spectroscopy. Chemical Communications, 2018, 54, 7826-7829.	2.2	15
75	Space Charge-Limited Current Transport Mechanism in Crossbar Junction Embedding Molecular Spin Crossovers. ACS Applied Materials & Interfaces, 2020, 12, 31696-31705.	4.0	15
76	Proof of Principle: Immobilisation of Robust Cu^{II}₃Tb^{III}â€Macrocycles on Small, Suitably Preâ€functionalised Gold Nanoparticles. Chemistry - A European Journal, 2017, 23, 2517-2521.	1.7	14
77	Nitronyl nitroxide radicals at the interface: a hybrid architecture for spintronics. Rendiconti Lincei, 2018, 29, 623-630.	1.0	14
78	Ultralow-temperature device dedicated to soft X-ray magnetic circular dichroism experiments. Journal of Synchrotron Radiation, 2018, 25, 1727-1735.	1.0	14
79	Chirality driven selfâ€assembly in a fluorescent organogel. Chirality, 2011, 23, 833-840.	1.3	13
80	The Challenge of Thermal Deposition of Coordination Compounds: Insight into the Case of an Fe₄ Single Molecule Magnet. Chemistry of Materials, 2016, 28, 7693-7702.	3.2	13
81	Addressing single molecules of a thin magnetic film. Inorganica Chimica Acta, 2008, 361, 4089-4093.	1.2	12
82	Design, development and characterization of a nanomagnetic system based on iron oxide nanoparticles encapsulated in PLLA-nanospheres. European Polymer Journal, 2015, 62, 145-154.	2.6	12
83	XAS and XMCD of Single Molecule Magnets. Springer Proceedings in Physics, 2010, , 279-311.	0.1	11
84	Soft matter nanocomposites by grafting a versatile organogelator to carbon nanostructures. Soft Matter, 2011, 7, 10660.	1.2	11
85	Iodinated Bis(phthalocyaninato)terbium(III) Complexes: Versatile Platforms for Functionalization of Singleâ€Molecule Magnets through Sonogashira Reaction. European Journal of Organic Chemistry, 2015, 2015, 7036-7042.	1.2	11
86	Co(<scp>ii</scp>)-Based single-ion magnets with 1,1â€²-ferrocenediyl-bis(diphenylphosphine) metalloligands. Dalton Transactions, 2020, 49, 11697-11707.	1.6	11
87	Sonocrystallization as an Efficient Way to Control the Size, Morphology, and Purity of Coordination Compound Microcrystallites: Application to a Single-Chain Magnet. Inorganic Chemistry, 2020, 59, 9215-9226.	1.9	11
88	Stabilization of an Enantiopure Subâ€monolayer of Helicene Radical Cations on a Au(111) Surface through Noncovalent Interactions. Angewandte Chemie - International Edition, 2021, 60, 15276-15280.	7.2	11
89	Metalâ€Organic Chemical Vapor Deposition (MOCVD) Synthesis of Heteroepitaxial Pr_{0.7}Ca_{0.3}MnO₃ Films: Effects of Processing Conditions on Structural/Morphological and Functional Properties. ChemistryOpen, 2015, 4, 523-532.	0.9	10
90	Urea vs. carbamate groups: a comparative study in a chiral C₂symmetric organogelator. Soft Matter, 2015, 11, 8333-8341.	1.2	10

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91	Volatile Organic Compounds sensing properties of TbPc2 thin films: Towards a plasmon-enhanced opto-chemical sensor. Sensors and Actuators B: Chemical, 2017, 253, 266-274.	4.0	10
92	A TbPc₂ sub-monolayer deposit on a titanium dioxide ultrathin film: magnetic, morphological, and chemical insights. Journal of Materials Chemistry C, 2021, 9, 15011-15017.	2.7	9
93	UHV deposition and characterization of a mononuclear iron(III) Î²-diketonate complex on Au(111). Beilstein Journal of Nanotechnology, 2014, 5, 2139-2148.	1.5	8
94	Chemisorption of nitronylâ€“nitroxide radicals on gold surface: an assessment of morphology, exchange interaction and decoherence time. Nanoscale, 2021, 13, 7613-7621.	2.8	8
95	Magnetic molecules as local sensors of topological hysteresis of superconductors. Nature Communications, 2022, 13, .	5.8	8
96	XMCD of a single layer of single molecule magnets. European Physical Journal: Special Topics, 2009, 169, 167-173.	1.2	7
97	Chiral Supramolecular Nanotubes of Singleâ€Chain Magnets. Angewandte Chemie, 2020, 132, 790-794.	1.6	7
98	Single-chain magnet behavior in a finite linear hexanuclear molecule. Chemical Science, 2021, 12, 10613-10621.	3.7	7
99	Engineering Chemisorption of Fe₄ Singleâ€Molecule Magnets on Gold. Advanced Materials Interfaces, 2021, 8, 2101182.	1.9	7
100	Radicalâ€Functionalised Gel: A Buildingâ€Block Strategy for Magnetochiral Assembly. ChemPlusChem, 2013, 78, 149-156.	1.3	6
101	Chiral/ring closed vs. achiral/open chain triazine-based organogelators: induction and amplification of supramolecular chirality in organic gels. Soft Matter, 2014, 10, 3762.	1.2	6
102	Sustainable synthesis of quaternary sulphides: The problem of the uptake of zinc in CZTS. Journal of Alloys and Compounds, 2019, 775, 1221-1229.	2.8	6
103	Synchrotron-based MÃ¶ssbauer spectroscopy characterization of sublimated spin crossover molecules. Physical Chemistry Chemical Physics, 2020, 22, 6626-6637.	1.3	5
104	Spectroscopic properties of Langmuirâ€“Blodgett films containing a potential-sensitive dye. Materials Science and Engineering C, 2003, 23, 897-902.	3.8	4
105	Immobilization of a fluorescent dye in Langmuir-Blodgett films. Bioelectrochemistry, 2004, 63, 9-12.	2.4	4
106	Formation of TbPc₂ Single-Molecule Magnetsâ€™ Covalent 1D Structures via Acyclic Diene Metathesis. ACS Omega, 2017, 2, 517-521.	1.6	4
107	Quasi-Hexagonal to Lepidocrocite-like Transition in TiO2 Ultrathin Films on Cu(001). Journal of Physical Chemistry C, 2021, 125, 10621-10630.	1.5	4
108	Substrate mediated interaction of terbium(<scp>iii</scp>) double-deckers with the TiO₂(110) surface. Physical Chemistry Chemical Physics, 2021, 23, 12060-12067.	1.3	4

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109	A new solvothermal approach to obtain nanoparticles in the Cu3SnS4-Cu2FeSnS4 join. Journal of Geosciences (Czech Republic), 2020, , 3-14.	0.3	4
110	XAS and XMCD Reveal a Cobalt(II) Imide Undergoes High-Pressure-Induced Spin Crossover. Journal of Physical Chemistry C, 2022, 126, 5784-5792.	1.5	4
111	Insertion of a functionalised single molecule magnet into preformed self-assembled monolayers. Inorganica Chimica Acta, 2008, 361, 3944-3950.	1.2	3
112	Self-assembly of a terbium(III) 1D coordination polymer on mica. Beilstein Journal of Nanotechnology, 2019, 10, 2440-2448.	1.5	3
113	Investigation of a Tetrathiafulvalene-Based Fe2+ Thermal Spin Crossover Assembled on Gold Surface. Magnetochemistry, 2022, 8, 14.	1.0	3
114	Electron-paramagnetic resonance detection with software time locking. Review of Scientific Instruments, 2014, 85, 024703.	0.6	1
115	Spin fluctuations in the light-induced high-spin state of cobalt valence tautomers. Physical Review B, 2018, 98, .	1.1	1
116	Stabilization of an Enantiopure Subâ€monolayer of Helicene Radical Cations on a Au(111) Surface through Noncovalent Interactions. Angewandte Chemie, 2021, 133, 15404-15408.	1.6	1
117	A tetrairon(III) single-molecule magnet and its solvatomorphs: synthesis, crystal structures and vapor-phase processing. Inorganica Chimica Acta, 2022, 531, 120698.	1.2	1
118	Patterning molecular scale paramagnets at au surfaces: a root to magneto-molecular-electronics. , 0, , .		0
119	Magnetic Materials: X-Ray Magnetic Circular Dichroism Picks out Single-Molecule Magnets Suitable for Nanodevices (Adv. Mater. 2/2009). Advanced Materials, 2009, 21, NA-NA.	11.1	0
120	A capacitive probe for Electron Spin Resonance detection. Journal of Magnetic Resonance, 2016, 263, 116-121.	1.2	0
121	Proof of Principle: Immobilisation of Robust CuII 3 TbIII -Macrocycles on Small, Suitably Pre-functionalised Gold Nanoparticles. Chemistry - A European Journal, 2017, 23, 2480-2480.	1.7	0
122	Green and scalable synthesis of nanocrystalline kuramite. Beilstein Journal of Nanotechnology, 2019, 10, 2073-2083.	1.5	0
123	Improved functional performances of traditional artistic pottery by sol-gel nanoparticles deposition. Materials Research Express, 2019, 6, 025032.	0.8	0