

# Juan M Clemente-Juan

## List of Publications by Citations

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187  
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210  
ext. papers

11,343  
ext. citations

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L-index

#	Paper	IF	Citations
187	Mononuclear lanthanide single-molecule magnets based on polyoxometalates. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 8874-5	16.4	758
186	High-Nuclearity Magnetic Clusters: Generalized Spin Hamiltonian and Its Use for the Calculation of the Energy Levels, Bulk Magnetic Properties, and Inelastic Neutron Scattering Spectra. <i>Inorganic Chemistry</i> , <b>1999</b> , 38, 6081-6088	5.1	556
185	Magnetic polyoxometalates: from molecular magnetism to molecular spintronics and quantum computing. <i>Chemical Society Reviews</i> , <b>2012</b> , 41, 7464-78	58.5	551
184	Mononuclear lanthanide single molecule magnets based on the polyoxometalates [Ln(W <sub>5</sub> O <sub>18</sub> ) <sub>2</sub> ] <sup>9-</sup> and [Ln(beta <sub>2</sub> -SiW <sub>11</sub> O <sub>39</sub> ) <sub>2</sub> ] <sup>13-</sup> (Ln(III) = Tb, Dy, Ho, Er, Tm, and Yb). <i>Inorganic Chemistry</i> , <b>2009</b> , 48, 3467-79	5.1	441
183	Magnetic clusters from polyoxometalate complexes. <i>Coordination Chemistry Reviews</i> , <b>1999</b> , 193-195, 361-394	23.2	308
182	Influence of peripheral substitution on the magnetic behavior of single-ion magnets based on homo- and heteroleptic Tb(III) bis(phthalocyaninate). <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 1457-65	4.8	290
181	Increasing the Nuclearity of Magnetic Polyoxometalates. Syntheses, Structures, and Magnetic Properties of Salts of the Heteropoly Complexes [Ni <sub>3</sub> (H <sub>2</sub> O) <sub>3</sub> (PW <sub>10</sub> O <sub>39</sub> )H <sub>2</sub> O] <sup>7-</sup> , [Ni <sub>4</sub> (H <sub>2</sub> O) <sub>2</sub> (PW <sub>9</sub> O <sub>34</sub> ) <sub>2</sub> ] <sup>10-</sup> , and [Ni <sub>9</sub> (OH) <sub>3</sub> (H <sub>2</sub> O) <sub>6</sub> (HPO <sub>4</sub> ) <sub>2</sub> (PW <sub>9</sub> O <sub>34</sub> ) <sub>3</sub> ] <sup>16-</sup> . <i>Inorganic Chemistry</i> , <b>2008</b> , 47, 1005-1012	5.1	230
180	Lanthanoid single-ion magnets based on polyoxometalates with a 5-fold symmetry: the series [LnP <sub>5</sub> W <sub>3</sub> O <sub>110</sub> ] <sup>12-</sup> (Ln <sup>3+</sup> = Tb, Dy, Ho, Er, Tm, and Yb). <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 14982-90	16.4	206
179	A nonanuclear iron(II) single-molecule magnet. <i>Angewandte Chemie - International Edition</i> , <b>2004</b> , 43, 2266-70	6.0	196
178	Rational design of single-ion magnets and spin qubits based on mononuclear lanthanoid complexes. <i>Inorganic Chemistry</i> , <b>2012</b> , 51, 12565-74	5.1	177
177	Unprecedented ferromagnetic interaction in homobinuclear erbium and gadolinium complexes: structural and magnetic studies. <i>Angewandte Chemie - International Edition</i> , <b>2002</b> , 41, 323-5	16.4	175
176	Effect of cyanato, azido, carboxylato, and carbonato ligands on the formation of cobalt(II) polyoxometalates: characterization, magnetic, and electrochemical studies of multinuclear cobalt clusters. <i>Chemistry - A European Journal</i> , <b>2007</b> , 13, 3525-36	4.8	173
175	Gd-based single-ion magnets with tunable magnetic anisotropy: molecular design of spin qubits. <i>Physical Review Letters</i> , <b>2012</b> , 108, 247213	7.4	166
174	Poly(polyoxotungstate)s with 20 nickel centers: from nanoclusters to one-dimensional chains. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 7176-9	16.4	165
173	Synthesis, structure, and magnetic properties of the low-symmetry tetranuclear cubane-like nickel complex [Ni <sub>4</sub> (py <sub>5</sub> entO)(pym)(mu <sup>3</sup> -OH) <sub>2</sub> (mu-Oac) <sub>2</sub> (NCS) <sub>2</sub> (OH) <sub>2</sub> ]. <i>Inorganic Chemistry</i> , <b>2000</b> , 39, 5515-9	5.1	147
172	Cobalt-containing silicotungstate sandwich dimer [[Co <sub>3</sub> (B-beta-SiW <sub>9</sub> O <sub>33</sub> (OH))(B-beta-SiW <sub>8</sub> O <sub>29</sub> (OH) <sub>2</sub> )] <sub>2</sub> <sup>22-</sup> . <i>Inorganic Chemistry</i> , <b>2005</b> , 44, 9360-8	5.1	136
171	Unprecedented (Cu <sub>2</sub> Ln) <sub>n</sub> complexes (Ln = Gd <sup>3+</sup> , Tb <sup>3+</sup> ): a new "single chain magnet". <i>Inorganic Chemistry</i> , <b>2004</b> , 43, 8200-2	5.1	128

170	A mixed-valence polyoxovanadate(III,IV) cluster with a calixarene cap exhibiting ferromagnetic V(III)-V(IV) interactions. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 2365-71	16.4	122
169	Modeling the properties of lanthanoid single-ion magnets using an effective point-charge approach. <i>Dalton Transactions</i> , <b>2012</b> , 41, 13705-10	4.3	119
168	A unique example of structural and magnetic diversity in four interconvertible copper(II)-azide complexes with the same schiff base ligand: a monomer, a dimer, a chain, and a layer. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 6616-27	5.1	112
167	Antisymmetric exchange in triangular tricopper(II) complexes: correlation among structural, magnetic, and electron paramagnetic resonance parameters. <i>Inorganic Chemistry</i> , <b>2012</b> , 51, 985-1001	5.1	102
166	A family of enneanuclear iron(II) single-molecule magnets. <i>Chemistry - A European Journal</i> , <b>2008</b> , 14, 2514-86	4.86	102
165	New poly-iron(II) complexes of N4O dinucleating Schiff bases and pseudohalides: syntheses, structures, and magnetic and Mössbauer properties. <i>Inorganic Chemistry</i> , <b>2004</b> , 43, 1574-86	5.1	102
164	Beyond the spin model: exchange coupling in molecular magnets with unquenched orbital angular momenta. <i>Chemical Society Reviews</i> , <b>2011</b> , 40, 3130-56	58.5	101
163	A new heptanuclear cobalt(II) cluster encapsulated in a novel heteropolyoxometalate topology: synthesis, structure, and magnetic properties of [Co <sub>7</sub> H <sub>2</sub> O <sub>2</sub> (OH) <sub>2</sub> (P <sub>2</sub> W <sub>25</sub> O <sub>94</sub> ) <sub>16</sub> ] <sup>-</sup> . <i>Inorganic Chemistry</i> , <b>2004</b> , 43, 2689-94	5.1	101
162	Spin-lattice relaxation via quantum tunneling in an Er <sup>3+</sup> -polyoxometalate molecular magnet. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	98
161	Anion-directed synthesis of metal-organic frameworks based on 2-picolinate CuII complexes: a ferromagnetic alternating chain and two unprecedented ferromagnetic fish backbone chains. <i>Inorganic Chemistry</i> , <b>2007</b> , 46, 10771-80	5.1	97
160	Magnetic Excitations in Polyoxometalate Clusters Observed by Inelastic Neutron Scattering: Evidence for Anisotropic Ferromagnetic Exchange Interactions in the Tetrameric Cobalt(II) Cluster [Co <sub>4</sub> (H <sub>2</sub> O) <sub>2</sub> (PW <sub>9</sub> O <sub>34</sub> ) <sub>2</sub> ] <sub>10</sub> <sup>-</sup> . Comparison with the Magnetic and Specific Heat Properties. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 10028-10034	16.4	91
159	Synthesis, structure, and magnetic properties of tetranuclear cubane-like and chain-like iron(II) complexes based on the N(4)O pentadentate dinucleating ligand 1,5-bis[(2-pyridylmethyl)amino]pentan-3-ol. <i>Inorganic Chemistry</i> , <b>2002</b> , 41, 1478-91	5.1	88
158	The azido ligand: a useful tool in designing chain compoundsexhibiting alternating ferro- and antiferro-magnetic interactions. <i>Chemical Communications</i> , <b>1997</b> , 1195-1196	5.8	86
157	SIMPRES: a software package to calculate crystal field parameters, energy levels, and magnetic properties on mononuclear lanthanoid complexes based on charge distributions. <i>Journal of Computational Chemistry</i> , <b>2013</b> , 34, 1961-7	3.5	84
156	A novel high-spin heterometallic Ni <sub>12</sub> K <sub>4</sub> cluster incorporating large Ni-azide circles and an in situ cyanomethylated di-2-pyridyl ketone. <i>Chemical Communications</i> , <b>2005</b> , 233-5	5.8	84
155	Ferromagnetic interaction in a polynuclear gadolinium complex: structure and magnetic studies. <i>Dalton Transactions</i> , <b>2003</b> , 1272-1275	4.3	84
154	Single-component magnetic conductors based on Mo <sub>3</sub> S <sub>7</sub> trinuclear clusters with outer dithiolate ligands. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 12076-83	16.4	83
153	Bimetallic cyanide-bridged complexes based on the photochromic nitroprusside anion and paramagnetic metal complexes. Syntheses, structures, and physical characterization of the coordination compounds [Ni(en) <sub>2</sub> ] <sub>4</sub> [Fe(CN) <sub>5</sub> NO] <sub>2</sub> [Fe(CN) <sub>6</sub> ] <sub>x</sub> 5H <sub>2</sub> O, [Ni(en) <sub>2</sub> ][Fe(CN) <sub>5</sub> NO] <sub>x</sub> 3H <sub>2</sub> O, [Ni(2-MeOsalen)(H <sub>2</sub> O)] <sub>2</sub> [Fe(CN) <sub>5</sub> NO], and [Ni(5-Brsalen)] <sub>2</sub> [Fe(CN) <sub>5</sub> NO]. <i>Inorganic Chemistry</i> , <b>2001</b> , 40, 87-94	5.1	81

- 152 Microscopic approach to the pseudo-spin-1/2 Hamiltonian for Kramers doublets in exchange coupled Co(II) pairs. *Inorganic Chemistry*, **2003**, 42, 2455-8 5.1 75
- 151 Dinuclear (Fe(II), Gd(III)) complexes deriving from hexadentate Schiff bases: synthesis, structure, and Mössbauer and magnetic properties. *Inorganic Chemistry*, **2002**, 41, 2886-91 5.1 75
- 150 Crystal structures and magnetic properties of 2,3,5,6-tetrakis(2-pyridyl)pyrazine (tppz)-containing copper(II) complexes. *Inorganic Chemistry*, **2003**, 42, 8716-27 5.1 74
- 149 Mixed-valence polyoxometalate clusters. I. Delocalization of electronic pairs in dodecanuclear heteropoly blues with keggin structure. *Chemical Physics*, **1995**, 195, 1-15 2.3 73
- 148 Modeling the properties of uranium-based single ion magnets. *Chemical Science*, **2013**, 4, 938-946 9.4 71
- 147 Magnetic polyoxometalates: anisotropic exchange interactions in the moiety of [(NaOH)<sub>2</sub>Co<sub>3</sub>(H<sub>2</sub>O)(P<sub>2</sub>W<sub>15</sub>O<sub>56</sub>)<sub>2</sub>]<sup>17-</sup>. *Inorganic Chemistry*, **2005**, 44, 3389-95 5.1 71
- 146 Magnetic Excitations in Polyoxometalate Clusters Observed by Inelastic Neutron Scattering: Evidence for Ferromagnetic Exchange Interactions and Spin Anisotropy in the Tetrameric Nickel(II) Cluster [Ni<sub>4</sub>(H<sub>2</sub>O)<sub>2</sub>(PW<sub>9</sub>O<sub>34</sub>)<sub>2</sub>]<sup>10-</sup> and Comparison with the Magnetic Properties. *Journal of the American Chemical Society*, **1999**, 121, 10021-10027 16.4 70
- 145 Trans-dicyanobis(acetylacetonato)ruthenate(III) as a precursor to build novel cyanide-bridged RuIII/III bimetallic compounds [M = Co and Ni]. *Coordination Chemistry Reviews*, **2006**, 250, 2176-2193 23.2 69
- 144 Electron delocalization in mixed-valence Keggin polyoxometalates. Ab initio calculation of the local effective transfer integrals and its consequences on the spin coupling. *Journal of the American Chemical Society*, **2002**, 124, 15134-40 16.4 69
- 143 Construction of a general library for the rational design of nanomagnets and spin qubits based on mononuclear f-block complexes. The polyoxometalate case. *Inorganic Chemistry*, **2014**, 53, 9976-80 5.1 67
- 142 Copper-, cobalt-, and manganese-containing 17-tungsto-2-germanates. *Inorganic Chemistry*, **2009**, 48, 5884-90 5.1 61
- 141 Role of the electron transfer and magnetic exchange interactions in the magnetic properties of mixed-valence polyoxovanadate complexes. *Inorganic Chemistry*, **2008**, 47, 5889-901 5.1 59
- 140 Magnetic exchange between metal ions with unquenched orbital angular momenta: basic concepts and relevance to molecular magnetism. *International Reviews in Physical Chemistry*, **2010**, 29, 135-230 7 57
- 139 Heterotetranuclear oxalato-bridged Re(IV)<sub>3</sub>M(II) (M = Mn, Fe, Co, Ni, Cu) complexes: a new example of a single-molecule magnet (M = Ni). *Inorganic Chemistry*, **2009**, 48, 3027-38 5.1 56
- 138 Magnetic polyoxometalates: anisotropic antiferro- and ferromagnetic exchange interactions in the pentameric cobalt(II) cluster. *Inorganic Chemistry*, **2001**, 40, 1943-50 5.1 56
- 137 Orbitally dependent magnetic coupling between cobalt(II) ions: The problem of the magnetic anisotropy. *Journal of Chemical Physics*, **2003**, 118, 5566-5581 3.9 53
- 136 Structures, Magnetic Properties, and Reactivity Studies of Salts Containing the Dinuclear Anion [M<sub>2</sub>Cl<sub>6</sub>]<sup>2-</sup> (M = Mn, Fe, Co). *Inorganic Chemistry*, **1999**, 38, 5841-5855 5.1 49
- 135 Isolation of four new CoII/CoIII and NiII complexes with a pentadentate Schiff base ligand: syntheses, structural descriptions and magnetic studies. *Dalton Transactions*, **2011**, 40, 1652-61 4.3 48

134	Coherent manipulation of spin qubits based on polyoxometalates: the case of the single ion magnet [GdW <sub>30</sub> P <sub>5</sub> O <sub>110</sub> ] <sup>14-</sup> . <i>Chemical Communications</i> , <b>2013</b> , 49, 8922-4	5.8	47
133	Two iron-containing tungstogermanates: [K(H <sub>2</sub> O)(β-Fe <sub>2</sub> GeW <sub>10</sub> O <sub>37</sub> (OH))(γ-GeW <sub>10</sub> O <sub>36</sub> )] <sup>12-</sup> and [β-Fe <sub>2</sub> GeW <sub>10</sub> O <sub>37</sub> (OH) <sub>2</sub> ] <sup>12-</sup> . <i>Inorganic Chemistry</i> , <b>2007</b> , 46, 8763-70	5.1	47
132	Hexanuclear iron(III) salicylaldoximate complexes presenting the [Fe <sub>6</sub> (μ <sub>3</sub> -O) <sub>2</sub> (μ <sub>2</sub> -OR) <sub>2</sub> ] <sup>12+</sup> core: syntheses, crystal structures, and spectroscopic and magnetic characterization. <i>Inorganic Chemistry</i> , <b>2006</b> , 45, 2317-26	5.1	47
131	An original 1D Cu <sup>II</sup> heterometallic compound: synthesis, structure and magnetic properties. <i>New Journal of Chemistry</i> , <b>2006</b> , 30, 572	3.6	45
130	Magnetization relaxation in a three-dimensional ligated cobalt phosphonate containing ferrimagnetic chains. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 3579-83	4.8	44
129	Oxalato-bridged dinuclear complexes of Cr(III) and Fe(III): synthesis, structure, and magnetism of [(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> N] <sub>4</sub> [MM <sup>II</sup> ox)(NCS) <sub>8</sub> ] with MMP= CrCr, FeFe, and CrFe. <i>Inorganic Chemistry</i> , <b>2000</b> , 39, 3771-6	5.1	44
128	Magnetic Exchange between Orbitally Degenerate Ions: A New Development for the Effective Hamiltonian. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 200-213	2.8	44
127	A ferromagnetic tetranuclear nickel(II) Schiff-base complex with an asymmetric Ni <sub>4</sub> O <sub>4</sub> cubane core. <i>Polyhedron</i> , <b>2014</b> , 74, 1-5	2.7	43
126	High-nuclearity Ni-substituted polyoxometalates: a series of poly(polyoxotungstate)s containing 2022 nickel centers. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 13032-43	4.8	43
125	Role of orbital degeneracy in the single molecule magnet behavior of a mononuclear high-spin Fe(II) complex. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 8073-7	5.1	43
124	Defective dicubane-like tetranuclear nickel(II) cyanate and azide nanoscale magnets. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 11541-9	5.1	42
123	Mixed-valence polyoxometalate clusters. II. Delocalization of electronic pairs in 18-site heteropoly blues with Wells-Dawson structure. <i>Chemical Physics</i> , <b>1995</b> , 195, 17-28	2.3	42
122	High-nuclearity mixed-valence magnetic clusters: A general solution of the double exchange problem. <i>Journal of Chemical Physics</i> , <b>1996</b> , 105, 6892-6909	3.9	40
121	Breathing effect in a cobalt phosphonate upon dehydration/rehydration: a single-crystal-to-single-crystal study. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 16394-402	4.8	39
120	Effects of halogen bonding in ferromagnetic chains based on Co(II) coordination polymers. <i>CrystEngComm</i> , <b>2010</b> , 12, 2339	3.3	39
119	Electron delocalization and electrostatic repulsion at the origin of the strong spin coupling in mixed-valence kegglin polyoxometalates: ab initio calculations of the one- and two-electron processes. <i>Chemistry - A European Journal</i> , <b>2004</b> , 10, 4041-53	4.8	39
118	Magnetism in polyoxometalates: anisotropic exchange interactions in the Co <sup>3+</sup> moiety of [Co <sub>3</sub> W(D <sub>2</sub> O) <sub>2</sub> (ZnW <sub>9</sub> O <sub>34</sub> ) <sub>2</sub> ] <sup>12-</sup> --A magnetic and inelastic neutron scattering study. <i>Chemistry - A European Journal</i> , <b>2002</b> , 8, 5701-8	4.8	39
117	Mixed-valence polyoxometalate clusters. III. Vibronic problem for the 2-electron reduced heteropoly blue with the Keggin structure. <i>Chemical Physics</i> , <b>1995</b> , 195, 29-47	2.3	39

- 116 Magneto-structural correlations and DFT calculations in two rare tetranuclear copper(II)-clusters with doubly phenoxo and end-on azido bridges: Syntheses, structural variations and EPR studies. *Inorganica Chimica Acta*, **2010**, 363, 3580-3588 2.7 38
- 115 New Reactivity of 4-Amino-3,5-bis(pyridin-2-yl)-1,2,4-triazole: Synthesis and Structure of a Mononuclear Species, a Dinuclear Species, and a Novel Tetranuclear Nickel(II) Rectangle Box, and Magnetic Properties of the Dinuclear and Tetranuclear Complexes. *European Journal of Inorganic Chemistry*, **2007**, 2007, 3710-3717 2.3 38
- 114 Electrically switchable magnetic molecules: inducing a magnetic coupling by means of an external electric field in a mixed-valence polyoxovanadate cluster. *Chemistry - A European Journal*, **2015**, 21, 763-9 4.8 36
- 113 Metal Phosphonates Based on {[(Benzimidazol-2-ylmethyl)imino]bis(methylene)}bis(phosphonic Acid): Syntheses, Structures and Magnetic Properties of the Chain Compounds [M{(C<sub>7</sub>H<sub>5</sub>N<sub>2</sub>)CH<sub>2</sub>N(CH<sub>2</sub>PO<sub>3</sub>H)<sub>2</sub>}] (M = Mn, Fe, Co, Cu, Cd). *European Journal of Inorganic Chemistry*, **2006**, 2006, 1830-1837 2.3 36
- 112 A Comparative Structural and Magnetic Study of Three Compounds Based on the Cluster Unit M<sub>4</sub>Cl<sub>8</sub>(THF)<sub>6</sub> (M=Mn, Fe, Co). *Journal of Solid State Chemistry*, **2001**, 159, 281-292 3.3 36
- 111 Supramolecular 2D/3D isomerism in a compound containing heterometallic Cu(II)<sub>2</sub>Co(II) nodes and dicyanamide bridges. *Inorganic Chemistry*, **2014**, 53, 2441-9 5.1 35
- 110 Molecular anisotropy analysis of single-ion magnets using an effective electrostatic model. *Inorganic Chemistry*, **2014**, 53, 11323-7 5.1 34
- 109 A Nonanuclear Iron(II) Single-Molecule Magnet. *Angewandte Chemie*, **2004**, 116, 2316-2320 3.6 33
- 108 Single ion magnets based on lanthanoid polyoxomolybdate complexes. *Dalton Transactions*, **2016**, 45, 16653-16660 4.3 32
- 107 Magnetic exchange interaction in a pair of orbitally degenerate ions: Magnetic anisotropy of [Ti<sub>2</sub>Cl<sub>9</sub>]<sup>3-</sup>. *Journal of Chemical Physics*, **2001**, 114, 1148-1164 3.9 32
- 106 Coordination of gadolinium(III) ions with a preformed  $\mu_2$ -diiron(III) complex: structural and magnetic data. *Dalton Transactions*, **2003**, 464-468 4.3 31
- 105 Magnetic exchange interaction in clusters of orbitally degenerate ions. I. Effective Hamiltonian. *Chemical Physics*, **2001**, 274, 131-144 2.3 31
- 104 Cobalt Clusters with Cubane-Type Topologies Based on Trivacant Polyoxometalate Ligands. *Inorganic Chemistry*, **2016**, 55, 925-38 5.1 30
- 103 Heptanuclear hydroxo-bridged copper cluster of the dicubane-like type: structural and magnetic characterizations of [Cu<sub>7</sub>(OH)<sub>6</sub>Cl<sub>2</sub>(pn)<sub>6</sub>(H<sub>2</sub>O)<sub>2</sub>](C(CN)<sub>3</sub>)<sub>4</sub>Cl<sub>2</sub> (pn = 1,3-diaminopropane). *Chemical Communications*, **2001**, 2172-3 5.8 29
- 102 An updated version of the computational package SIMPRE that uses the standard conventions for Stevens crystal field parameters. *Journal of Computational Chemistry*, **2014**, 35, 1930-4 3.5 28
- 101 Mixed-valence molecular four-dot unit for quantum cellular automata: Vibronic self-trapping and cell-cell response. *Journal of Chemical Physics*, **2015**, 143, 134307 3.9 27
- 100 Molecular analog of multiferroics: Electric and magnetic field effects in many-electron mixed-valence dimers. *Physical Review B*, **2012**, 86, 3.3 27
- 99 Magnetic exchange interaction in clusters of orbitally degenerate ions. II. Application of the irreducible tensor operator technique. *Chemical Physics*, **2001**, 274, 145-163 2.3 27

98	Electric field control of the spin state in mixed-valence magnetic molecules. <i>ChemPhysChem</i> , <b>2012</b> , 13, 2662-5	3.2	26
97	Anisotropic exchange coupling in the Keggin derivative $K_8[Co_2(D_2O)(W_{11}O_{39})] \cdot n D_2O$ . <i>Chemical Physics Letters</i> , <b>1998</b> , 289, 224-230	2.5	26
96	Synthesis, structure and magnetic properties of the one-dimensional chain compound $\{K[Fe(1,3,5\text{-triazine-}2,4,6\text{-tricarboxylate})(H_2O)_2] \cdot 2H_2O\}$ . <i>Dalton Transactions RSC</i> , <b>2002</b> , 2710-2713		26
95	Nonanuclear Spin-Crossover Complex Containing Iron(II) and Iron(III) Based on a 2,6-Bis(pyrazol-1-yl)pyridine Ligand Functionalized with a Carboxylate Group. <i>Inorganic Chemistry</i> , <b>2016</b> , 55, 9361-7	5.1	25
94	Modelling electric field control of the spin state in the mixed-valence polyoxometalate $[GeV_{14}O_{40}]^{8-}$ . <i>Chemical Communications</i> , <b>2013</b> , 49, 9621-3	5.8	23
93	Synthesis, crystal structure and magnetic properties of a new cyanide-bridged iron(III)-nickel(II) ferromagnetic chain. <i>Inorganica Chimica Acta</i> , <b>2008</b> , 361, 3912-3918	2.7	23
92	Self-trapping of charge polarized states in four-dot molecular quantum cellular automata: bi-electronic tetrameric mixed-valence species. <i>Pure and Applied Chemistry</i> , <b>2015</b> , 87, 271-282	2.1	22
91	Coherent Manipulation of Polarization in Mixed-Valence Compounds by Electric Pulse via Landau-Zener Transitions. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 4999-5008	3.8	22
90	Synthesis, Crystal Structure, and Magnetic Properties of an Octanuclear Nickel(II) Complex with a hexahedro-Ni <sub>8</sub> Core. <i>Angewandte Chemie International Edition in English</i> , <b>1996</b> , 35, 1485-1487		22
89	Molecular spin qubits based on lanthanide ions encapsulated in cubic polyoxopalladates: design criteria to enhance quantum coherence. <i>Inorganic Chemistry Frontiers</i> , <b>2015</b> , 2, 893-897	6.8	21
88	Light-induced decarboxylation in a photo-responsive iron-containing complex based on polyoxometalate and oxalato ligands. <i>Chemical Science</i> , <b>2017</b> , 8, 305-315	9.4	21
87	Bimetallic Mn(III)/Fe(II) hybrid complexes formed by a functionalized Mn(III) Anderson polyoxometalate coordinated to Fe(II): observation of a field-induced slow relaxation of magnetization in the Mn(III) centres and a photoinduced spin-crossover in the Fe(II) centres. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 5004-5015	7.1	21
86	High-nuclearity mixed-valence clusters and mixed-valence chains: general approach to the calculation of the energy levels and bulk magnetic properties. <i>Inorganic Chemistry</i> , <b>2009</b> , 48, 4557-68	5.1	21
85	Alternating antiferromagnetic and ferromagnetic exchange interactions in the $S = 1$ Heisenberg chain. Theory and magnetic properties. <i>Chemical Physics Letters</i> , <b>1997</b> , 275, 79-84	2.5	21
84	Two pyrazolylborate dysprosium(III) and neodymium(III) single ion magnets modeled by a Radial Effective Charge approach. <i>Polyhedron</i> , <b>2013</b> , 66, 39-42	2.7	20
83	Origin of the Paramagnetic Properties of the Mixed-Valence Polyoxometalate $[GeV_{14}O_{40}]^{8-}$ Reduced by Two Electrons: Wave Function Theory and Model Hamiltonian Calculations. <i>European Journal of Inorganic Chemistry</i> , <b>2009</b> , 2009, 5109-5114	2.3	20
82	Spin Switching in Molecular Quantum Cellular Automata Based on Mixed-Valence Tetrameric Units. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 16994-17005	3.8	20
81	A symmetry adapted approach to the dynamic Jahn-Teller problem: Application to mixed-valence polyoxometalate clusters with kegginn structure. <i>International Journal of Quantum Chemistry</i> , <b>2012</b> , 112, 2957-2964	2.1	19

80	Structural and magnetic studies of tetranuclear heterometallic M/Cr (M = Co, Mn) complexes self-assembled from zerovalent cobalt or manganese, Reineckes salt and diethanolamine. <i>Polyhedron</i> , <b>2010</b> , 29, 1326-1336	2.7	19
79	Electric field control of the optical properties in magnetic mixed-valence molecules. <i>Chemical Science</i> , <b>2014</b> , 5, 3598-3602	9.4	18
78	Mixed-valence polyoxometalates: spin-coupling and electron distribution in the decawolframate anion reduced by two electrons. <i>Journal of Physical Chemistry A</i> , <b>2007</b> , 111, 9969-77	2.8	18
77	A Diferrous Single-Molecule Magnet. <i>European Journal of Inorganic Chemistry</i> , <b>2007</b> , 2007, 2409-2415	2.3	18
76	Synthesis, Structure, Spectroscopic Studies and Magnetic Properties of the Tetrakis(5,7-dichloro-8-quinolinolato)gadolinium(III) Complex. <i>European Journal of Inorganic Chemistry</i> , <b>2008</b> , 2008, 3820-3826	2.3	18
75	Anisotropic double exchange in orbitally degenerate mixed valence systems. <i>Chemical Physics</i> , <b>2000</b> , 254, 275-285	2.3	18
74	Mixed-Valence Molecular Unit for Quantum Cellular Automata: Beyond the Born-Oppenheimer Paradigm through the Symmetry-Assisted Vibronic Approach. <i>Journal of Chemical Theory and Computation</i> , <b>2016</b> , 12, 3545-60	6.4	17
73	The first example of a hetero-tetranuclear [(VO)Gd](2) complex: synthesis, crystal structure and magnetic properties of [VOLGd(hfa)(2)CH(3)OH](2).2CH(3)OH.2(CH(3))(2)CO. <i>Dalton Transactions</i> , <b>2005</b> , 2830-2	4.3	17
72	Spontaneous Magnetization in Heterometallic NiFe-MOF-74 Microporous Magnets by Controlled Iron Doping. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 6181-6185	9.6	16
71	Unprecedented pseudo-trigonal-bipyramidal intermediate-spin iron(III) complex: synthesis, crystal structure and magnetic properties of [Fe(4,4'-bipy)2(NCS)3][CH3)2CO. <i>Journal of the Chemical Society Dalton Transactions</i> , <b>1999</b> , 1375		16
70	Key Role of Size and Electronic Configuration on the Sign and Strength of the Magnetic Coupling in a Series of Cu2Ln Trimers (Ln = Ce, Gd, Tb, Dy and Er). <i>Magnetochemistry</i> , <b>2016</b> , 2, 2	3.1	16
69	Deciphering the Role of Dipolar Interactions in Magnetic Layered Double Hydroxides. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 2013-2022	5.1	15
68	Electronic and magnetic study of polycationic Mn(12) single-molecule magnets with a ground spin state S = 11. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 386-96	5.1	15
67	MVPACK: a package to calculate energy levels and magnetic properties of high nuclearity mixed valence clusters. <i>Journal of Computational Chemistry</i> , <b>2010</b> , 31, 1321-32	3.5	15
66	Supramolecular diversity and magnetic properties of novel heterometallic Cu(II)/Cr(III) complexes prepared from copper powder, Reineckes salt and ethylenediamine. <i>Inorganica Chimica Acta</i> , <b>2009</b> , 362, 2237-2246	2.7	15
65	Magnetic Exchange between Orbitally Degenerate Metal Ions: The Problem of Magnetic Anisotropy. <i>Journal of Solid State Chemistry</i> , <b>2001</b> , 159, 268-280	3.3	15
64	Synthesis, Crystal Structure, Thermal Analysis and Magnetic Behavior of a Novel One-Dimensional Polymeric Pyridinium Chlorocuprate(II): (Hpy)2[Cu3Cl8(H2O)2]. <i>European Journal of Inorganic Chemistry</i> , <b>2003</b> , 2003, 4253-4259	2.3	14
63	Reversible core-interconversion of an iron(III) dihydroxo bridged complex. <i>Inorganic Chemistry</i> , <b>2008</b> , 47, 11314-23	5.1	13



62	Designing binuclear transition metal complexes: a new example of the versatility of N,NPbis(2-aminobenzyl)-4,13-diaza-18-crown-6. <i>Dalton Transactions</i> , <b>2005</b> , 2031-7	4.3	13
61	Parametrization of the magnetic behavior of the triangular spin ladder chains organically templated: (C <sub>2</sub> N <sub>2</sub> H <sub>10</sub> )[M(HPO <sub>3</sub> )F <sub>3</sub> ] (M(III) = Fe, Cr, and V). Crystal structure and thermal and spectroscopic properties of the iron(III) phase. <i>Inorganic Chemistry</i> , <b>2006</b> , 45, 3240-8	5.1	13
60	Exploiting clock transitions for the chemical design of resilient molecular spin qubits. <i>Chemical Science</i> , <b>2020</b> , 11, 10718-10728	9.4	12
59	Tunable crossover between one- and three-dimensional magnetic dynamics in CoII single-chain magnets organized by halogen bonding. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	12
58	Tuning the nuclearity of iron(III) polynuclear clusters by using tetradentate Schiff-base ligands. <i>New Journal of Chemistry</i> , <b>2014</b> , 38, 2105-2113	3.6	12
57	Parallel implementation of the MAGPACK package for the analysis of high-nuclearity spin clusters. <i>Computer Physics Communications</i> , <b>2010</b> , 181, 1929-1940	4.2	12
56	Magnetic Properties of Mixed-Valence Clusters: Theoretical Approaches and Applications 155-210		11
55	Field-induced slow relaxation of magnetization in a mononuclear Co(II) complex of 2,6-bis(pyrazol-1-yl)pyridine functionalized with a carboxylic acid. <i>Polyhedron</i> , <b>2018</b> , 150, 54-60	2.7	10
54	Electric Field Generation and Control of Bipartite Quantum Entanglement between Electronic Spins in Mixed Valence Polyoxovanadate [GeVO]. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 9547-9554	5.1	10
53	Isotropic magnetic exchange between anisotropic Yb(III) ions. Study of Cs <sub>3</sub> Yb <sub>2</sub> Cl <sub>9</sub> and Cs <sub>3</sub> Yb <sub>2</sub> Br <sub>9</sub> crystals. <i>Inorganic Chemistry</i> , <b>2005</b> , 44, 3984-92	5.1	10
52	SIMPRES1.2: Considering the hyperfine and quadrupolar couplings and the nuclear spin bath decoherence. <i>Journal of Computational Chemistry</i> , <b>2016</b> , 37, 1238-44	3.5	10
51	Purely Spectroscopic Determination of the Spin Hamiltonian Parameters in High-Spin Six-Coordinated Cobalt(II) Complexes with Large Zero-Field Splitting. <i>Inorganic Chemistry</i> , <b>2019</b> , 58, 16434-16444	5.1	10
50	Electric Field Control of Spin-Dependent Dissipative Electron Transfer Dynamics in Mixed-Valence Molecules. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 7911-7921	3.8	9
49	Large Magnetic Polyoxometalates Containing the Cobalt Cubane [CoCo(OH)(HO)(PWO)] <sub>3</sub> -P ( = 3 or 5) as a Subunit. <i>Frontiers in Chemistry</i> , <b>2018</b> , 6, 231	5	9
48	A rare polymeric azido-bridged copper(II) chain with a pentameric repeating unit: Synthesis, structure and magnetic properties. <i>Polyhedron</i> , <b>2013</b> , 50, 45-50	2.7	9
47	Quantum Error Correction with magnetic molecules. <i>Europhysics Letters</i> , <b>2015</b> , 110, 33001	1.6	9
46	Orbitally dependent kinetic exchange in cobalt(II) pairs: origin of the magnetic anisotropy. <i>Polyhedron</i> , <b>2003</b> , 22, 2537-2544	2.7	9
45	Photomagnetic properties of an Fe(ii) spin-crossover complex of 6-(3,5-diamino-2,4,6-triazinyl)-2,2Pbipyridine and its insertion into 2D and 3D bimetallic oxalate-based networks. <i>Dalton Transactions</i> , <b>2017</b> , 46, 2680-2689	4.3	8

44	A decacobalt(ii) cluster with triple-sandwich structure obtained by partial reductive hydrolysis of a pentacobalt(ii/iii) Weakley-type polyoxometalate. <i>Chemical Communications</i> , <b>2016</b> , 52, 13245-13248	5.8	8
43	Electric field controllable magnetic coupling of localized spins mediated by itinerant electrons: a toy model. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 26098-26106	3.6	8
42	Single-crystal EPR spectroscopy of a Co(II) single-chain magnet. <i>Polyhedron</i> , <b>2013</b> , 66, 218-221	2.7	8
41	Ab initio calculations of the transfer parameters and coulombic repulsion and estimation of their effects on the electron delocalization and magnetic coupling in mixed-valence Keggin polyoxotungstates. <i>Polyhedron</i> , <b>2003</b> , 22, 2331-2337	2.7	8
40	A Symmetry Adapted Approach to the Dynamic Jahn-Teller Problem. <i>Progress in Theoretical Chemistry and Physics</i> , <b>2011</b> , 39-57	0.6	8
39	Manipulation of the spin in single molecule magnets via Landau-Zener transitions. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	7
38	Problem of the magnetic anisotropy in orbitally degenerate exchange and mixed-valence clusters. <i>Polyhedron</i> , <b>2003</b> , 22, 2521-2526	2.7	7
37	Quantum Cellular Automata: a Short Overview of Molecular Problem. <i>Acta Physica Polonica A</i> , <b>2018</b> , 133, 329-335	0.6	7
36	Electric Field Control of Spin States in Trigonal Two-Electron Quantum Dot Arrays and Mixed-Valence Molecules: I. Electronic Problem. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 2451-2459	3.8	7
35	Localization-Delocalization in Bridged Mixed-Valence Metal Clusters: Vibronic PKS Model Revisited. <i>Journal of Physical Chemistry A</i> , <b>2015</b> , 119, 9844-56	2.8	6
34	The Use of Polyoxometalates in the Design of Layer-Like Hybrid Salts Containing Cationic Mn <sup>4+</sup> Single-Molecule Magnets. <i>European Journal of Inorganic Chemistry</i> , <b>2013</b> , 2013, 1903-1909	2.3	6
33	Magnetic excitations in polyoxometalate tetrameric clusters. <i>Physica B: Condensed Matter</i> , <b>1997</b> , 234-236, 764-765	2.8	6
32	Electronic structure of high-nuclearity mixed-valence clusters. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1995</b> , 140-144, 197-198	2.8	6
31	Modelling the properties of magnetic clusters with complex structures: how symmetry can help us. <i>International Reviews in Physical Chemistry</i> , <b>2020</b> , 39, 217-265	7	5
30	High nuclearity mixed-valence magnetic clusters: theoretical study of the spin coupling in the C <sub>60</sub> ²⁻ fulleride ion. <i>Chemical Physics Letters</i> , <b>1998</b> , 283, 363-367	2.5	5
29	Magnetic and vibronic interactions in mixed-valence clusters: A general approach based on the angular momentum theory. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1995</b> , 140-144, 1807-1808	2.8	5
28	Exploration of the double exchange in quantum cellular automata: proposal for a new class of cells. <i>Chemical Communications</i> , <b>2020</b> , 56, 10682-10685	5.8	5
27	Mononuclear Lanthanide Complexes: Use of the Crystal Field Theory to Design Single-Ion Magnets and Spin Qubits <b>2015</b> , 27-60		4

26	Mixed-Valence Magnetic Molecular Cell for Quantum Cellular Automata: Prospects of Designing Multifunctional Devices through Exploration of Double Exchange. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 25602-25614	3.8	4
25	Spin-coupling topology in the copper hexamer compounds $A_2Cu_3O(SO_4)_3$ (A=Na, K). <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
24	Dissipative electron transfer dynamics in mixed valence dimers: microscopic approach to the solid state problem. <i>Journal of Chemical Physics</i> , <b>2013</b> , 139, 044304	3.9	4
23	Electron Delocalization and magnetic Interactions in Magnetic Molecular Systems. Theory and Applications. <i>Molecular Crystals and Liquid Crystals</i> , <b>1997</b> , 306, 209-218		4
22	Kinetic exchange Hamiltonian for orbitally degenerate ions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1998</b> , 238, 164-168	2.3	4
21	Electric Field Control of Spin States in Trigonal Two-Electron Quantum Dot Arrays and Mixed-Valence Molecules: II. Vibronic Problem. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 2460-2473	3.8	4
20	Vibronic Model for Intercommunication of Localized Spins via Itinerant Electron. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 5746-5760	3.8	3
19	A thermally/chemically robust and easily regenerable anilato-based ultramicroporous 3D MOF for CO <sub>2</sub> uptake and separation. <i>Journal of Materials Chemistry A</i> ,	13	3
18	Electrically switchable magnetic exchange in the vibronic model of linear mixed valence triferrocenium complex. <i>Dalton Transactions</i> , <b>2018</b> , 47, 11788-11805	4.3	3
17	Jahn-Teller effect in molecular electronics: quantum cellular automata. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 833, 012002	0.3	2
16	MAGNETIC POLYOXOMETALATES. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , <b>2013</b> , 155-171		2
15	Can the Double Exchange Cause Antiferromagnetic Spin Alignment?. <i>Magnetochemistry</i> , <b>2020</b> , 6, 36	3.1	2
14	Synthesis and Magnetic Properties of a Copper Cube: $[Cu(OH)(CHN)](ClO)CHO$ $[CHN=(-1,6-Di(pyridin-4-yl)hex-3-ene]$ . <i>ChemistryOpen</i> , <b>2019</b> , 8, 1204-1208	2.3	1
13	Symmetry assisted consideration of the dynamic pseudo Jahn-Teller problem in mixed-valence species with square topology: Intervalence optical bands. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2014</b> , 116, 802-809	0.7	1
12	Additions and corrections published in 2013. <i>Chemical Communications</i> , <b>2013</b> , 49, 11812	5.8	1
11	Magnetic Polyoxometalates <b>2003</b> , 273-295		1
10	Polyoxometalates: From Magnetic Models to Multifunctional Materials. <i>Nanostructure Science and Technology</i> , <b>2002</b> , 157-168	0.9	1
9	Double Exchange in Orbitally Degenerate Mixed Valence Clusters: Magnetic Anisotropy, Vibronic Effects <b>2001</b> , 111-122		1

- 8 Insertion of single-ion magnets based on mononuclear Co(II) complexes into ferromagnetic oxalate-based networks. *Dalton Transactions*, **2021**, 50, 5931-5942 4.3 1
- 7 Magnetic Properties of Mixed-Valence Clusters: Theoretical Approaches and Applications 155-210 1
- 6 Electronic and Vibronic Problems of Nanosized Mixed Valence Clusters: Advances and Challenges. *Journal of Physics: Conference Series*, **2013**, 428, 012037 0.3 0
- 5 Insight Into The Spin-Vibronic Problem of a Mixed Valence Magnetic Molecular Cell for Quantum Cellular Automata. *ChemPhysChem*, **2021**, 22, 1754-1768 3.2 0
- 4 A general approach for the calculation of the energy levels and the inelastic neutron scattering cross-section of highly nuclear magnetic clusters. *Physica B: Condensed Matter*, **1997**, 234-236, 746-748 2.8
- 3 Magnetization measurements of clusters of Mn (II) at low temperature and high magnetic field. *European Physical Journal D*, **1996**, 46, 2115-2116
- 2 Coherent Spin Dependent Landau-Zener Tunneling in Mixed Valence Dimers. *Progress in Theoretical Chemistry and Physics*, **2011**, 329-350 0.6
- 1 Toward multifunctional molecular cells for quantum cellular automata: exploitation of interconnected charge and spin degrees of freedom. *Physical Chemistry Chemical Physics*, **2021**, 23, 14511-14528 3.6