J Ignacio MartÃ-nez

List of Publications by Year
in descending order

126 papers	8,174 citations	134610 34 h-index	54771 88 g-index
128 all docs	128 docs citations	128 times ranked	12794 citing authors

#	Article	IF	Citations
1	Following the light: 3D-printed COF@poly(2-hydroxyethyl methacrylate) dual emissive composite with response to polarity and acidity. Journal of Materials Chemistry A, 2022, 10, 4634-4643.	5.2	15
2	Pyrenetetraone-based covalent organic framework as an effective electrocatalyst for oxygen reduction reaction. Nano Research, 2022, 15, 3907-3912.	5.8	14
3	Covalent organic frameworks based on electroactive naphthalenediimide as active electrocatalysts toward oxygen reduction reaction. Applied Materials Today, 2022, 26, 101384.	2.3	13
4	Innovative Microstructural Transformation upon CO2 Supercritical Conditions on Metal-Nucleobase Aerogel and Its Use as Effective Filler for HPLC Biomolecules Separation. Nanomaterials, 2022, 12, 675.	1.9	0
5	Engineering Periodic Dinuclear Lanthanideâ€Directed Networks Featuring Tunable Energy Level Alignment and Magnetic Anisotropy by Metal Exchange. Small, 2022, 18, e2107073.	5.2	8
6	Metallated Isoindigoâ€“Porphyrin Covalent Organic Framework Photocatalyst with a Narrow Band Gap for Efficient CO₂ Conversion. ACS Applied Materials & Interfaces, 2022, 14, 2015-2022.	4.0	31
7	Concentration asymmetry and carbon enrichment in titanium carbide and silicon carbide clusters. Physical Review A, 2022, 105, .	1.0	2
8	From high quality packing to disordered nucleation or phase separation in donor/acceptor interfaces: ClAlPc-C₆₀ on Au(111). Physical Chemistry Chemical Physics, 2021, 23, 14363-14371.	1.3	1
9	Photocatalytic degradation of organic pollutants through conjugated poly(azomethine) networks based on terthiopheneâ€“naphthalimide assemblies. RSC Advances, 2021, 11, 2701-2705.	1.7	7
10	Copper-assisted oxidation of catechols into quinone derivatives. Chemical Science, 2021, 12, 2257-2267.	3.7	16
11	Lanthanide-porphyrin species as Kondo irreversible switches through tip-induced coordination chemistry. Nanoscale, 2021, 13, 8600-8606.	2.8	4
12	Dysprosium-directed metallosupramolecular network on graphene/Ir(111). Chemical Communications, 2021, 57, 1380-1383.	2.2	12
13	Role of the Structure and Reactivity of Cu and Ag Surfaces in the Formation of a 2D Metalâ€“Hexahydroxytriphenylene Network. Journal of Physical Chemistry C, 2021, 125, 17333-17341.	1.5	12
14	Tuning the Magnetic Anisotropy of Lanthanides on a Metal Substrate by Metalâ€“Organic Coordination. Small, 2021, 17, e2102753.	5.2	8
15	A Trapezoidal Octacyanoquinoid Acceptor Forms Solution and Surface Products by Antiparallel Shape Fitting with Conformational Dipole Momentum Switch. Angewandte Chemie - International Edition, 2021, 60, 17887-17892.	7.2	5
16	Metal-catalyst-free gas-phase synthesis of long-chain hydrocarbons. Nature Communications, 2021, 12, 5937.	5.8	7
17	Hydrogen Interaction with Tungsten Disulfide Nanostructures. , 2021, , .		0
18	Cu(I)â€“I-2,4-diaminopyrimidine Coordination Polymers with Optoelectronic Properties as a Proof of Concept for Solar Cells. Inorganic Chemistry, 2021, 60, 1208-1219.	1.9	11

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19	Oxygen reduction using a metal-free naphthalene diimide-based covalent organic framework electrocatalyst. Chemical Communications, 2020, 56, 1267-1270.	2.2	56
20	Cunning defects: emission control by structural point defects on Cu(<scp>i</scp>)I double chain coordination polymers. Journal of Materials Chemistry C, 2020, 8, 1448-1458.	2.7	11
21	Oxygen intercalation in PVD graphene grown on copper substrates: A decoupling approach. Applied Surface Science, 2020, 529, 147100.	3.1	10
22	Onâ€Surface Driven Formal Michael Addition Produces m â€Polyaniline Oligomers on Pt(111). Angewandte Chemie - International Edition, 2020, 59, 23220-23227.	7.2	5
23	Onâ€Surface Driven Formal Michael Addition Produces m â€Polyaniline Oligomers on Pt(111). Angewandte Chemie, 2020, 132, 23420-23427.	1.6	1
24	Role of the Metal Surface on the Room Temperature Activation of the Alcohol and Amino Groups of p-Aminophenol. Journal of Physical Chemistry C, 2020, 124, 19655-19665.	1.5	2
25	Cathodoluminescence in single and multiwall WS2 nanotubes: Evidence for quantum confinement and strain effect. Applied Physics Reviews, 2020, 7, .	5.5	15
26	In silico design of 2D polymers containing truxene-based platforms: insights into their structural and electronic properties. Journal of Materials Chemistry C, 2020, 8, 15416-15425.	2.7	13
27	Chemical equilibrium in AGB atmospheres: successes, failures, and prospects for small molecules, clusters, and condensates. Astronomy and Astrophysics, 2020, 637, A59.	2.1	55
28	Experimental and Theoretical Study of Dynamic Structural Transformations between Sensing Copper(II)-Uracil Antiferromagnetic and Metamagnetic Coordination Compounds. Crystal Growth and Design, 2020, 20, 5097-5107.	1.4	0
29	Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.	2.0	333
30	Ultra-thin NaCl films as protective layers for graphene. Nanoscale, 2019, 11, 16767-16772.	2.8	6
31	Hydrogen quenches the size effects in carbon clusters. Physical Chemistry Chemical Physics, 2019, 21, 10402-10410.	1.3	3
32	Reversible transformation between Cu(<scp>i</scp>)-thiophenolate coordination polymers displaying luminescence and electrical properties. CrystEngComm, 2019, 21, 3232-3239.	1.3	10
33	Multifunctional Copper(I) Coordination Polymers with Aromatic Mono- and Ditopic Thioamides. Inorganic Chemistry, 2019, 58, 3290-3301.	1.9	42
34	Versatile Graphene-Based Platform for Robust Nanobiohybrid Interfaces. ACS Omega, 2019, 4, 3287-3297.	1.6	9
35	3D Printing of a Thermoâ€and Solvatochromic Composite Material Based on a Cu(II)â€“Thymine Coordination Polymer with Moisture Sensing Capabilities. Advanced Functional Materials, 2019, 29, 1808424.	7.8	35
36	Fluorescence enhancement of fungicide thiabendazole by van der Waals interaction with transition metal dichalcogenide nanosheets for highly specific sensors. Nanoscale, 2019, 11, 23156-23164.	2.8	6

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37	On-Surface Hydrogen-Induced Covalent Coupling of Polycyclic Aromatic Hydrocarbons via a Superhydrogenated Intermediate. Journal of the American Chemical Society, 2019, 141, 3550-3557.	6.6	40
38	Modelling of adsorption and intercalation of hydrogen on/into tungsten disulphide multilayers and multiwall nanotubes. Physical Chemistry Chemical Physics, 2018, 20, 12061-12074.	1.3	6
39	Chemistry below graphene: Decoupling epitaxial graphene from metals by potential-controlled electrochemical oxidation. Carbon, 2018, 129, 837-846.	5.4	30
40	Adsorption Geometry and Energy Level Alignment at the PTCDA/TiO2(110) Interface. Journal of Physical Chemistry B, 2018, 122, 534-542.	1.2	11
41	Reversible Thermochromic Polymeric Thin Films Made of Ultrathin 2D Crystals of Coordination Polymers Based on Copper(I)â€Thiophenolates. Advanced Functional Materials, 2018, 28, 1704040.	7.8	53
42	An improved descriptor of cluster stability: application to small carbon clusters. Physical Chemistry Chemical Physics, 2018, 20, 27368-27374.	1.3	8
43	Layer-Stacking-Driven Fluorescence in a Two-Dimensional Imine-Linked Covalent Organic Framework. Journal of the American Chemical Society, 2018, 140, 12922-12929.	6.6	147
44	How Au Outperforms Pt in the Catalytic Reduction of Methane Towards Ethane and Molecular Hydrogen. Topics in Catalysis, 2018, 61, 1290-1299.	1.3	0
45	Size-Selective Carbon Clusters as Obstacles to Graphene Growth on a Metal. Nano Letters, 2018, 18, 4812-4820.	4.5	7
46	Chiral Organization and Charge Redistribution in Chloroaluminum Phthalocyanine on Au(111) Beyond the Monolayer. Journal of Physical Chemistry C, 2018, 122, 16033-16041.	1.5	9
47	Onâ€Surface Bottomâ€Up Synthesis of Azine Derivatives Displaying Strong Acceptor Behavior. Angewandte Chemie, 2018, 130, 8718-8722.	1.6	7
48	Onâ€Surface Bottomâ€Up Synthesis of Azine Derivatives Displaying Strong Acceptor Behavior. Angewandte Chemie - International Edition, 2018, 57, 8582-8586.	7.2	13
49	Smart composite films of nanometric thickness based on copperâ€“iodine coordination polymers. Toward sensors. Chemical Science, 2018, 9, 8000-8010.	3.7	44
50	Supramolecular Interactions Modulating Electrical Conductivity and Nanoprocessing of Copperâ€“Iodine Double-Chain Coordination Polymers. Inorganic Chemistry, 2018, 57, 7568-7577.	1.9	22
51	Highly selective covalent organic functionalization of epitaxial graphene. Nature Communications, 2017, 8, 15306.	5.8	45
52	High-quality PVD graphene growth by fullerene decomposition on Cu foils. Carbon, 2017, 119, 535-543.	5.4	29
53	Hydrogen Chemical Configuration and Thermal Stability in Tungsten Disulfide Nanoparticles Exposed to Hydrogen Plasma. Journal of Physical Chemistry C, 2017, 121, 11747-11756.	1.5	6
54	Group 10 Metal Benzene-1,2-dithiolate Derivatives in the Synthesis of Coordination Polymers Containing Potassium Countercations. Inorganic Chemistry, 2017, 56, 11810-11818.	1.9	12

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55	Multistimuli Response Microâ€•and Nanolayers of a Coordination Polymer Based on Cu₂I₂ Chains Linked by 2â€Aminopyrazine. Small, 2017, 13, 1700965.	5.2	43
56	Spectroscopic characterization of the on-surface induced (cyclo)dehydrogenation of a N-heteroaromatic compound on noble metal surfaces. Physical Chemistry Chemical Physics, 2017, 19, 22454-22461.	1.3	3
57	Unveiling universal trends for the energy level alignment in organic/oxide interfaces. Physical Chemistry Chemical Physics, 2017, 19, 24412-24420.	1.3	9
58	Low temperature metal free growth of graphene on insulating substrates by plasma assisted chemical vapor deposition. 2D Materials, 2017, 4, 015009.	2.0	38
59	Role of the Pinning Points in epitaxial Graphene MoirÃ© Superstructures on the Pt(111) Surface. Scientific Reports, 2016, 6, 20354.	1.6	18
60	Luminescent Thermochromism of 2D Coordination Polymers Based on Copper(I) Halides with 4â€Hydroxythiophenol. Chemistry - A European Journal, 2016, 22, 18027-18035.	1.7	43
61	Metalation of tetraphenylporphyrin with nickel on a TiO2(110)-1 Ã— 2 surface. Nanoscale, 2016, 8, 1123-1132.	2.8	20
62	Adsorption and coupling of 4-aminophenol on Pt(111) surfaces. Surface Science, 2016, 646, 5-12.	0.8	8
63	Densely Packed ZnTPPs Monolayer on the Rutile TiO₂(110)-(1 Ã— 1) Surface: Adsorption Behavior and Energy Level Alignment. Journal of Physical Chemistry C, 2016, 120, 4430-4437.	1.5	26
64	On-Surface (Cyclo-)Dehydrogenation Reactions: Role of Surface Diffusion. Advances in Atom and Single Molecule Machines, 2016, , 43-83.	0.0	2
65	Electrical Conductivity and Strong Luminescence in Copper Iodide Double Chains with Isonicotinato Derivatives. Chemistry - A European Journal, 2015, 21, 17282-17292.	1.7	31
66	On-surface self-organization of a robust metalâ€“organic cluster based on copper(<scp>i</scp>) with chloride and organosulphur ligands. Chemical Communications, 2015, 51, 3243-3246.	2.2	4
67	Mechanical and optical properties of ultralarge flakes of a metalâ€“organic framework with molecular thickness. Chemical Science, 2015, 6, 2553-2558.	3.7	141
68	Reversible stimulus-responsive Cu(<scp>i</scp>) iodide pyridine coordination polymer. Chemical Communications, 2015, 51, 14306-14309.	2.2	35
69	Ultrafast Atomic Diffusion Inducing a Reversible(23Ã—23)R30Â°â†”(3Ã—3)R30Â°Transition onSn/Si(111)âˆ¶B. Physical Review Letters, 2015, 114, 196101.	2.9	7
70	Densely Packed Perylene Layers on the Rutile TiO₂(110)-(1 Ã— 1) Surface. Journal of Physical Chemistry C, 2015, 119, 7809-7816.	1.5	11
71	Halo and Pseudohalo Cu(I)-Pyridinato Double Chains with Tunable Physical Properties. Inorganic Chemistry, 2015, 54, 10738-10747.	1.9	19
72	Chemical Interaction, Space-Charge Layer, and Molecule Charging Energy for a TiO₂/TCNQ Interface. Journal of Physical Chemistry C, 2015, 119, 22086-22091.	1.5	9

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73	Ortho and Para Hydrogen Dimers on G/SiC(0001): Combined STM and DFT Study. Langmuir, 2015, 31, 233-239.	1.6	12
74	Nanostructure Oxide, Metal Oxide and Composite Cylindrical Shapes For Energy and Electromagnetic Spectrum Uses: First Principles Structural, Electronic, and Transport Characterization of SiO2 NanoWires, RuO2 NanoTubes, and SiO2/RuO2 NanoCables. , 2014, , .		0
75	Etching of Graphene in a Hydrogen-rich Atmosphere toward the Formation of Hydrocarbons in Circumstellar Clouds. Journal of Physical Chemistry C, 2014, 118, 26882-26886.	1.5	9
76	Antiphase Boundaries Accumulation Forming a New C₆₀ Decoupled Crystallographic Phase on the Rutile TiO₂(110)-(1 Ã— 1) Surface. Journal of Physical Chemistry C, 2014, 118, 27318-27324.	1.5	5
77	Electron transport signature of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>dissociation on atomic gold wires. Physical Review B, 2014, 90, .	1.1	4
78	Statistical analysis of stretched aluminum nanowires. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	2
79	Graphene etching on SiC grains as a path to interstellar polycyclic aromatic hydrocarbons formation. Nature Communications, 2014, 5, 3054.	5.8	59
80	Reversible recrystallization process of copper and silver thioacetamideâ€“halide coordination polymers and their basic building blocks. CrystEngComm, 2014, 16, 8224-8231.	1.3	28
81	Sequential formation of N-doped nanohelicenes, nanographenes and nanodomes by surface-assisted chemical (cyclo)dehydrogenation of heteroaromatics. Chemical Communications, 2014, 50, 1555.	2.2	23
82	Metallicity enhancement in coreâ€“shell SiO2@RuO2nanowires. RSC Advances, 2014, 4, 34696-34700.	1.7	1
83	Imaging Molecular Orbitals of PTCDA on Graphene on Pt(111): Electronic Structure by STM and First-Principles Calculations. Journal of Physical Chemistry C, 2014, 118, 12782-12788.	1.5	48
84	Fast Prediction of Adsorption Properties for Platinum Nanocatalysts with Generalized Coordination Numbers. Angewandte Chemie - International Edition, 2014, 53, 8316-8319.	7.2	366
85	Tailored Formation of N-Doped Nanoarchitectures by Diffusion-Controlled on-Surface (Cyclo)Dehydrogenation of Heteroaromatics. ACS Nano, 2013, 7, 3676-3684.	7.3	52
86	Tailoring structural and electronic properties of RuO2 nanotubes: a many-body approach and electronic transport. Physical Chemistry Chemical Physics, 2013, 15, 14715.	1.3	23
87	Chemistry and temperature-assisted dehydrogenation of C60H30 molecules on TiO2(110) surfaces. Nanoscale, 2013, 5, 11058.	2.8	17
88	Energy Level Alignment in Organicâ€“Organic Heterojunctions: The TTF/TCNQ Interface. Journal of Physical Chemistry C, 2013, 117, 3888-3894.	1.5	14
89	Number of outer electrons as descriptor for adsorption processes on transition metals and their oxides. Chemical Science, 2013, 4, 1245.	3.7	273
90	Oxygen reduction and evolution at single-metal active sites: Comparison between functionalized graphitic materials and protoporphyrins. Surface Science, 2013, 607, 47-53.	0.8	121

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91	Effect of van der Waals forces on the stacking of coronenes encapsulated in a single-wall carbon nanotube and many-body excitation spectrum. Carbon, 2013, 54, 113-123.	5.4	25
92	Solventâ€Induced Delamination of a Multifunctional Two Dimensional Coordination Polymer. Advanced Materials, 2013, 25, 2141-2146.	11.1	146
93	On the organic energy gap problem. Journal of Physics Condensed Matter, 2013, 25, 094007.	0.7	2
94	Barrier height formation in organic blends/metal interfaces: Case of tetrathiafulvalene-tetracyanoquinodimethane/Au(111). Journal of Chemical Physics, 2013, 139, 214706.	1.2	14
95	Improvement of Scanning Tunneling Microscopy Resolution with H-Sensitized Tips. Physical Review Letters, 2012, 108, 246102.	2.9	34
96	First-Principles Structural and Electronic Characterization of Ordered SiO₂ Nanowires. Journal of Physical Chemistry C, 2012, 116, 18973-18982.	1.5	22
97	Physical and Chemical Nature of the Scaling Relations between Adsorption Energies of Atoms on Metal Surfaces. Physical Review Letters, 2012, 108, 116103.	2.9	233
98	Scattering of a proton with the Li4 cluster: Non-adiabatic molecular dynamics description based on time-dependent density-functional theory. Chemical Physics, 2012, 399, 130-134.	0.9	40
99	Theoretical characterization of the TTF/Au (111) interface: STM imaging, band alignment and charging energy. Organic Electronics, 2012, 13, 399-408.	1.4	16
100	Density functional studies of functionalized graphitic materials with late transition metals for oxygen reduction reactions. Physical Chemistry Chemical Physics, 2011, 13, 15639.	1.3	454
101	C6H6/Au(111): Interface dipoles, band alignment, charging energy, and van der Waals interaction. Journal of Chemical Physics, 2011, 134, 044701.	1.2	59
102	On the behavior of BrÃ¸nsted-Evans-Polanyi relations for transition metal oxides. Journal of Chemical Physics, 2011, 134, 244509.	1.2	128
103	Theoretical Study of the Structural Stability and the Electronic Properties of Al_mH_n Clusters. Journal of Computational and Theoretical Nanoscience, 2011, 8, 609-615.	0.4	0
104	Barrier height formation for the PTCDA/Au(111) interface. Chemical Physics, 2011, 390, 14-19.	0.9	13
105	Trends in Metal Oxide Stability for Nanorods, Nanotubes, and Surfaces. Journal of Physical Chemistry C, 2011, 115, 2244-2252.	1.5	52
106	Universality in Oxygen Evolution Electrocatalysis on Oxide Surfaces. ChemCatChem, 2011, 3, 1159-1165.	1.8	3,208
107	Simulating the organicâ€molecule/metal interface TCNQ/Au(111). Physica Status Solidi (B): Basic Research, 2011, 248, 2044-2049.	0.7	11
108	Back Cover: Simulating the organicâ€molecule/metal interface TCNQ/Au(111) (Phys. Status Solidi B 9/2011). Physica Status Solidi (B): Basic Research, 2011, 248, .	0.7	20

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109	Trends in Stability of Perovskite Oxides. Angewandte Chemie - International Edition, 2010, 49, 7699-7701.	7.2	98
110	Barrier formation and charging energy for a variable nanogap organic molecular junction: a tip/C60/Au(111) configuration. Journal of Physics Condensed Matter, 2010, 22, 304007.	0.7	14
111	Optical to ultraviolet spectra of sandwiches of benzene and transition metal atoms: Time dependent density functional theory and many-body calculations. Journal of Chemical Physics, 2010, 132, 044314.	1.2	40
112	Formation energies of rutile metal dioxides using density functional theory. Physical Review B, 2009, 79, .	1.1	87
113	Optical absorption spectra of Ag11 isomers. European Physical Journal D, 2009, 52, 199-202.	0.6	6
114	Adsorption of Lithium on Finite Graphitic Clusters. Journal of Physical Chemistry C, 2009, 113, 939-941.	1.5	34
115	Density functional theory based screening of ternary alkali-transition metal borohydrides: A computational material design project. Journal of Chemical Physics, 2009, 131, 014101.	1.2	77
116	Stability and Electronic Properties of TiO₂ Nanostructures With and Without B and N Doping. Journal of Physical Chemistry C, 2009, 113, 12301-12308.	1.5	102
117	Scaling Relationships for Adsorption Energies on Transition Metal Oxide, Sulfide, and Nitride Surfaces. Angewandte Chemie - International Edition, 2008, 47, 4683-4686.	7.2	301
118	Electronic and atomic structure of the AlnHn+2 clusters. Journal of Chemical Physics, 2008, 129, 074306.	1.2	15
119	Theoretical study of the photoabsorption spectrum of small chromium clusters. Physical Review B, 2007, 76, .	1.1	12
120	Theoretical study of molecular hydrogen clusters. European Physical Journal D, 2007, 43, 61-64.	0.6	25
121	Optical Absorption Spectra of V⁺₄ Isomers: One Example of First-Principles Theoretical Spectroscopy with Time-Dependent Density Functional Theory. Journal of Computational and Theoretical Nanoscience, 2006, 3, 761-766.	0.4	8
122	Photoabsorption spectra of Ti8C12 metallocarbohedrynes: Theoretical spectroscopy within time-dependent density functional theory. Journal of Chemical Physics, 2006, 125, 074311.	1.2	16
123	Optical Absorption Spectra of V⁺₄ Isomers: One Example of First-Principles Theoretical Spectroscopy with Time-Dependent Density Functional Theory. Journal of Computational and Theoretical Nanoscience, 2006, 3, 761-766.	0.4	8
124	Theoretical study of the reactivity of cesium with benzene and graphitic CxHy clusters. Journal of Chemical Physics, 2005, 123, 074303.	1.2	7
125	Calculation of the optical spectrum of the Ti8C12 and V8C12 Met-Cars. Chemical Physics Letters, 2004, 398, 292-296.	1.2	12
126	Structure, stability and optical absorption spectra of small TinCx clusters: a first-principles approach. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	6