Gonzalo AbellÃ¡n

List of Publications by Year
in descending order

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94 papers	4,743 citations	117453 34 h-index	98622 67 g-index
109 all docs	109 docs citations	109 times ranked	6641 citing authors

#	Article	IF	Citations
1	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. Nature Communications, 2015, 6, 8563.	5.8	921
2	Fewâ€Layer Antimonene by Liquidâ€Phase Exfoliation. Angewandte Chemie - International Edition, 2016, 55, 14345-14349.	7.2	346
3	Recent Progress on Antimonene: A New Bidimensional Material. Advanced Materials, 2018, 30, 1703771.	11.1	245
4	Fundamental Insights into the Degradation and Stabilization of Thin Layer Black Phosphorus. Journal of the American Chemical Society, 2017, 139, 10432-10440.	6.6	232
5	Noncovalent Functionalization of Black Phosphorus. Angewandte Chemie - International Edition, 2016, 55, 14557-14562.	7.2	199
6	Hybrid Materials Based on Magnetic Layered Double Hydroxides: A Molecular Perspective. Accounts of Chemical Research, 2015, 48, 1601-1611.	7.6	135
7	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
8	Alkoxide-intercalated CoFe-layered double hydroxides as precursors of colloidal nanosheet suspensions: structural, magnetic and electrochemical properties. Journal of Materials Chemistry C, 2014, 2, 3723-3731.	2.7	116
9	The synthesis of a hybrid grapheneâ€“nickel/manganese mixed oxide and its performance in lithium-ion batteries. Carbon, 2012, 50, 518-525.	5.4	105
10	Metal-functionalized covalent organic frameworks as precursors of supercapacitive porous N-doped graphene. Journal of Materials Chemistry A, 2017, 5, 4343-4351.	5.2	91
11	Noncovalent Functionalization and Charge Transfer in Antimonene. Angewandte Chemie - International Edition, 2017, 56, 14389-14394.	7.2	83
12	Solvent-Free Synthesis of ZIFs: A Route toward the Elusive Fe(II) Analogue of ZIF-8. Journal of the American Chemical Society, 2019, 141, 7173-7180.	6.6	76
13	Fewâ€Layer Antimonene by Liquidâ€Phase Exfoliation. Angewandte Chemie, 2016, 128, 14557-14561.	1.6	74
14	Noncovalent Functionalization of Black Phosphorus. Angewandte Chemie, 2016, 128, 14777-14782.	1.6	71
15	Influence of the Interlayer Space on the Water Oxidation Performance in a Family of Surfactant-Intercalated NiFe-Layered Double Hydroxides. Chemistry of Materials, 2019, 31, 6798-6807.	3.2	71
16	Exploring the Formation of Black Phosphorus Intercalation Compounds with Alkali Metals. Angewandte Chemie - International Edition, 2017, 56, 15267-15273.	7.2	69
17	Few layer 2D pnictogens catalyze the alkylation of soft nucleophiles with esters. Nature Communications, 2019, 10, 509.	5.8	61
18	Lattice Opening upon Bulk Reductive Covalent Functionalization of Black Phosphorus. Angewandte Chemie - International Edition, 2019, 58, 5763-5768.	7.2	60

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19	Alkoxide-intercalated NiFe-layered double hydroxides magnetic nanosheets as efficient water oxidation electrocatalysts. Inorganic Chemistry Frontiers, 2016, 3, 478-487.	3.0	58
20	Unifying Principles of the Reductive Covalent Graphene Functionalization. Journal of the American Chemical Society, 2017, 139, 5175-5182.	6.6	54
21	Liquid phase exfoliation of antimonene: systematic optimization, characterization and electrocatalytic properties. Journal of Materials Chemistry A, 2019, 7, 22475-22486.	5.2	54
22	Magnetic Nanocomposites Formed by FeNi₃ Nanoparticles Embedded in Graphene. Application as Supercapacitors. Particle and Particle Systems Characterization, 2013, 30, 853-863.	1.2	53
23	Photoâ€Switching in a Hybrid Material Made of Magnetic Layered Double Hydroxides Intercalated with Azobenzene Molecules. Advanced Materials, 2014, 26, 4156-4162.	11.1	52
24	Small-pore driven high capacitance in a hierarchical carbon via carbonization of Ni-MOF-74 at low temperatures. Chemical Communications, 2016, 52, 9141-9144.	2.2	51
25	Interplay between Chemical Composition and Cation Ordering in the Magnetism of Ni/Fe Layered Double Hydroxides. Inorganic Chemistry, 2013, 52, 10147-10157.	1.9	50
26	Layered double hydroxide (LDH)â€“organic hybrids as precursors for low-temperature chemical synthesis of carbon nanoforms. Chemical Science, 2012, 3, 1481.	3.7	45
27	Liquid phase exfoliation of carbonate-intercalated layered double hydroxides. Chemical Communications, 2019, 55, 3315-3318.	2.2	45
28	Interface Molecular Engineering for Laminated Monolithic Perovskite/Silicon Tandem Solar Cells with 80.4% Fill Factor. Advanced Functional Materials, 2019, 29, 1901476.	7.8	43
29	Stimuli-responsive hybrid materials: breathing in magnetic layered double hydroxides induced by a thermoresponsive molecule. Chemical Science, 2015, 6, 1949-1958.	3.7	40
30	Inâ€Situ Growth of Ultrathin Films of NiFeâ€LDHs: Towards a Hierarchical Synthesis of Bambooâ€Like Carbon Nanotubes. Advanced Materials Interfaces, 2014, 1, 1400184.	1.9	39
31	A photoresponsive graphene oxideâ€“C₆₀conjugate. Chemical Communications, 2014, 50, 9053.	2.2	39
32	Room Temperature Magnetism in Layered Double Hydroxides due to Magnetic Nanoparticles. Inorganic Chemistry, 2013, 52, 7828-7830.	1.9	38
33	Fundamental Insights into the Reductive Covalent Cross-Linking of Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2018, 140, 3352-3360.	6.6	38
34	Layered gadolinium hydroxides for low-temperature magnetic cooling. Chemical Communications, 2015, 51, 14207-14210.	2.2	37
35	Mechanical cleaning of graphene using in situ electron microscopy. Nature Communications, 2020, 11, 1743.	5.8	36
36	Graphene as a carbon source effects the nanometallurgy of nickel in Ni,Mn layered double hydroxideâ€“graphene oxide composites. Chemical Communications, 2012, 48, 11416.	2.2	35

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37	Unveiling the oxidation behavior of liquid-phase exfoliated antimony nanosheets. 2D Materials, 2020, 7, 025039.	2.0	33
38	Hybrid Magnetic Multilayers by Intercalation of Cu(II) Phthalocyanine in LDH Hosts. Journal of Physical Chemistry C, 2012, 116, 15756-15764.	1.5	32
39	Intercalation of cobalt(II)-tetraphenylporphine tetrasulfonate complex in magnetic NiFe-layered double hydroxide. Polyhedron, 2013, 52, 216-221.	1.0	31
40	Electrical Conductivity and Strong Luminescence in Copper Iodide Double Chains with Isonicotinato Derivatives. Chemistry - A European Journal, 2015, 21, 17282-17292.	1.7	31
41	Improving the onset potential and Tafel slope determination of earth-abundant water oxidation electrocatalysts. Electrochimica Acta, 2021, 388, 138613.	2.6	30
42	Influence of morphology in the magnetic properties of layered double hydroxides. Journal of Materials Chemistry C, 2018, 6, 1187-1198.	2.7	29
43	Monolayer black phosphorus by sequential wet-chemical surface oxidation. RSC Advances, 2019, 9, 3570-3576.	1.7	28
44	Exfoliation of Alphaâ€€Germanium: A Covalent Diamondâ€Like Structure. Advanced Materials, 2021, 33, e2006826.	11.1	27
45	Noncovalent Functionalization and Charge Transfer in Antimonene. Angewandte Chemie, 2017, 129, 14581-14586.	1.6	26
46	Quantifying the Covalent Functionalization of Black Phosphorus. Angewandte Chemie - International Edition, 2020, 59, 20230-20234.	7.2	25
47	Rational Chemical Multifunctionalization of Graphene Interface Enhances Targeted Cancer Therapy. Angewandte Chemie - International Edition, 2020, 59, 14034-14039.	7.2	25
48	Boosting the Supercapacitive Behavior of CoAl Layered Double Hydroxides via Tuning the Metal Composition and Interlayer Space. Batteries and Supercaps, 2020, 3, 499-509.	2.4	24
49	CVD synthesis of carbon spheres using NiFe-LDHs as catalytic precursors: structural, electrochemical and magnetoresistive properties. Journal of Materials Chemistry C, 2016, 4, 440-448.	2.7	22
50	Two-Dimensional Antimony Oxide. Physical Review Letters, 2020, 124, 126101.	2.9	22
51	Deciphering the Role of Dipolar Interactions in Magnetic Layered Double Hydroxides. Inorganic Chemistry, 2018, 57, 2013-2022.	1.9	21
52	Giant Enhancement in the Supercapacitance of NiFeâ€“Graphene Nanocomposites Induced by a Magnetic Field. Advanced Materials, 2019, 31, e1900189.	11.1	21
53	Noncovalent Functionalization and Passivation of Black Phosphorus with Optimized Perylene Diimides for Hybrid Field Effect Transistors. Advanced Materials Interfaces, 2020, 7, 2001290.	1.9	19
54	Photochemical behavior in azobenzene having acidic groups. Preparation of magnetic photoresponsive gels. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 217, 157-163.	2.0	18

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55	Graphene enhances the magnetoresistance of FeNi₃nanoparticles in hierarchical FeNi₃â€“graphene nanocomposites. Journal of Materials Chemistry C, 2016, 4, 2252-2258.	2.7	17
56	Electronic and Magnetic Properties of Black Phosphorus. Physica Status Solidi (B): Basic Research, 2017, 254, 1700232.	0.7	17
57	Phonon properties and photo-thermal oxidation of micromechanically exfoliated antimonene nanosheets. 2D Materials, 2021, 8, 015018.	2.0	17
58	Modulation of the exfoliated graphene work function through cycloaddition of nitrile imines. Physical Chemistry Chemical Physics, 2016, 18, 29582-29590.	1.3	16
59	Halide-Mediated Modification of Magnetism and Electronic Structure of Î±-Co(II) Hydroxides: Synthesis, Characterization, and DFT+U Simulations. Inorganic Chemistry, 2019, 58, 9414-9424.	1.9	16
60	Interface Amorphization of Twoâ€Dimensional Black Phosphorus upon Treatment with Diazonium Salts. Chemistry - A European Journal, 2021, 27, 3361-3366.	1.7	15
61	Carbon Nano-onions: Potassium Intercalation and Reductive Covalent Functionalization. Journal of the American Chemical Society, 2021, 143, 18997-19007.	6.6	15
62	A chemical and electrochemical multivalent memory made from FeNi3-graphene nanocomposites. Electrochemistry Communications, 2014, 39, 15-18.	2.3	14
63	Fewâ€layer Black Phosphorous Catalyzes Radical Additions to Alkenes Faster than Lowâ€valence Metals. ChemCatChem, 2020, 12, 2226-2232.	1.8	14
64	Room temperature synthesis of two-dimensional multilayer magnets based on Î±-CoII layered hydroxides. Nano Materials Science, 2022, 4, 36-43.	3.9	14
65	Hierarchical control of porous silica by pH adjustment: Alkyl polyamines as surfactants for bimodal silica synthesis and its carbon replica. Journal of Solid State Chemistry, 2009, 182, 2141-2148.	1.4	13
66	Self-Assembly of 1D/2D Hybrid Nanostructures Consisting of a Cd(II) Coordination Polymer and NiAl-Layered Double Hydroxides. Polymers, 2016, 8, 5.	2.0	13
67	Exploring the Formation of Black Phosphorus Intercalation Compounds with Alkali Metals. Angewandte Chemie, 2017, 129, 15469-15475.	1.6	12
68	A Straightforward Approach to Multifunctional Graphene. Chemistry - A European Journal, 2019, 25, 13218-13223.	1.7	12
69	GitterÃ¶ffnung durch reduktive kovalente Volumenâ€Funktionalisierung von schwarzem Phosphor. Angewandte Chemie, 2019, 131, 5820-5826.	1.6	12
70	Fundamental Insights into the Covalent Silane Functionalization of NiFe Layered Double Hydroxides. Chemistry - A European Journal, 2020, 26, 6504-6517.	1.7	12
71	Acid Catalysis with Alkane/Water Microdroplets in Ionic Liquids. Jacs Au, 2021, 1, 786-794.	3.6	12
72	Rational Chemical Multifunctionalization of Graphene Interface Enhances Targeted Cancer Therapy. Angewandte Chemie, 2020, 132, 14138-14143.	1.6	10

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73	The Missing Link in the Magnetism of Hybrid Cobalt Layered Hydroxides: The Oddâ€“Even Effect of the Organic Spacer. Chemistry - A European Journal, 2021, 27, 921-927.	1.7	10
74	Highly Integrated Organicâ€“Inorganic Hybrid Architectures by Noncovalent Exfoliation of Graphite and Assembly with Zinc Oxide Nanoparticles. Advanced Materials Interfaces, 2016, 3, 1600365.	1.9	9
75	The Role of Covalent Functionalization in the Thermal Stability and Decomposition of Hybrid Layered Hydroxides. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000380.	1.2	9
76	Insights into the formation of metal carbon nanocomposites for energy storage using hybrid NiFe layered double hydroxides as precursors. Chemical Science, 2020, 11, 7626-7633.	3.7	9
77	NOx selective catalytic reduction at high temperatures with mixed oxides derived from layered double hydroxides. Catalysis Today, 2012, 191, 47-51.	2.2	8
78	Isomerically Pure Starâ€Shaped Triphenyleneâ€“Perylene Hybrids Involving Highly Extended Ï€â€Conjugation. Chemistry - A European Journal, 2018, 24, 4671-4679.	1.7	8
79	Continuousâ€Flow Synthesis of Highâ€Quality Fewâ€Layer Antimonene Hexagons. Advanced Functional Materials, 2021, 31, 2101616.	7.8	8
80	Covalent and non-covalent chemistry of 2D black phosphorus. RSC Advances, 2021, 11, 26093-26101.	1.7	8
81	Ruddlesdenâ€“Popper Hybrid Lead Bromide Perovskite Nanosheets of Phase Pure n=2: Stabilized Colloids Stored in the Solid State. Angewandte Chemie - International Edition, 2021, 60, 27312-27317.	7.2	8
82	Synthesis of FeNi3 nanoparticles in benzyl alcohol and their electrical and magnetic properties. Journal of Sol-Gel Science and Technology, 2014, 70, 292-299.	1.1	7
83	Influence of Fe-clustering on the water oxidation performance of two-dimensional layered double hydroxides. Dalton Transactions, 2022, 51, 4675-4684.	1.6	7
84	Layered double hydroxide nanocomposites based on carbon nanoforms. , 2020, , 411-460.		5
85	Effect of TCNQ Layer Cover on Oxidation Dynamics of Black Phosphorus. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800179.	1.2	4
86	Quantifizierung der kovalenten Funktionalisierung von schwarzem Phosphor. Angewandte Chemie, 2020, 132, 20406-20411.	1.6	3
87	Controlling the Formation of Sodium/Black Phosphorus IntercalationCompounds Towards High Sodium Content. Batteries and Supercaps, 2021, 4, 1304-1309.	2.4	3
88	Atomically resolved TEM imaging of covalently functionalised graphene. Npj 2D Materials and Applications, 2022, 6, .	3.9	3
89	Photoresponsive Materials: Photo-Switching in a Hybrid Material Made of Magnetic Layered Double Hydroxides Intercalated with Azobenzene Molecules (Adv. Mater. 24/2014). Advanced Materials, 2014, 26, 4188-4188.	11.1	2
90	Electronic Properties of Airâ€Sensitive Nanomaterials Probed with Microwave Impedance Measurements. Physica Status Solidi (B): Basic Research, 2018, 255, 1800250.	0.7	2

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91	Real Sociedad EspaÃ±ola de QuÃmica Awards 2019. Angewandte Chemie - International Edition, 2019, 58, 13625-13627.	7.2	2
92	Ruddlesdenâ€Popper hybrid lead bromide perovskite nanosheets of phase pure n = 2: stabilized colloids stored in the solid state. Angewandte Chemie, 2021, 133, 27518.	1.6	1
93	InnenrÃ¼cktitelbild: Rational Chemical Multifunctionalization of Graphene Interface Enhances Targeted Cancer Therapy (Angew. Chem. 33/2020). Angewandte Chemie, 2020, 132, 14267-14267.	1.6	0
94	Organic Field Effect Transistors: Noncovalent Functionalization and Passivation of Black Phosphorus with Optimized Perylene Diimides for Hybrid Field Effect Transistors (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617	1.9	0