David Portehault

List of Publications by Year
in descending order

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82	4,979	186265	88630
papers	citations	28 h-index	70 g-index

88	88	88	8321
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanoscaled Metal Borides and Phosphides: Recent Developments and Perspectives. Chemical Reviews, 2013, 113, 7981-8065.	47.7	877
2	Porous boron nitride nanosheets for effective water cleaning. Nature Communications, 2013, 4, 1777.	12.8	831
3	Boron Carbon Nitride Nanostructures from Salt Melts: Tunable Water-Soluble Phosphors. Journal of the American Chemical Society, 2011, 133, 7121-7127.	13.7	428
4	High and Stable Ionic Conductivity in 2D Nanofluidic Ion Channels between Boron Nitride Layers. Journal of the American Chemical Society, 2017, 139, 6314-6320.	13.7	193
5	Porous Boron Carbon Nitride Nanosheets as Efficient Metal-Free Catalysts for the Oxygen Reduction Reaction in Both Alkaline and Acidic Solutions. ACS Energy Letters, 2017, 2, 306-312.	17.4	176
6	Morphology Control of Cryptomelane Type MnO₂ Nanowires by Soft Chemistry. Growth Mechanisms in Aqueous Medium. Chemistry of Materials, 2007, 19, 5410-5417.	6.7	174
7	Highâ€Surfaceâ€Area Nanoporous Boron Carbon Nitrides for Hydrogen Storage. Advanced Functional Materials, 2010, 20, 1827-1833.	14.9	153
8	Molecular Engineering of Functional Inorganic and Hybrid Materials. Chemistry of Materials, 2014, 26, 221-238.	6.7	147
9	Morphological and Structural Evolution of Co₃O₄ Nanoparticles Revealed by in Situ Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation. ACS Nano, 2019, 13, 11372-11381.	14.6	140
10	Large scale boron carbon nitride nanosheets with enhanced lithium storage capabilities. Chemical Communications, 2013, 49, 352-354.	4.1	110
11	A General Solution Route toward Metal Boride Nanocrystals. Angewandte Chemie - International Edition, 2011, 50, 3262-3265.	13.8	99
12	Facile General Route toward Tunable MagnÃ©li Nanostructures and Their Use As Thermoelectric Metal Oxide/Carbon Nanocomposites. ACS Nano, 2011, 5, 9052-9061.	14.6	95
13	Structure and electrochromism of two-dimensional octahedral molecular sieve hâ€™-WO3. Nature Communications, 2019, 10, 327.	12.8	88
14	Design of metal oxide nanoparticles: Control of size, shape, crystalline structure and functionalization by aqueous chemistry. Comptes Rendus Chimie, 2010, 13, 40-51.	0.5	86
15	A Coreâ€“Corona Hierarchical Manganese Oxide and its Formation by an Aqueous Soft Chemistry Mechanism. Angewandte Chemie - International Edition, 2008, 47, 6441-6444.	13.8	85
16	Structural and morphological control of manganese oxide nanoparticles upon soft aqueous precipitation through MnO4â¯/Mn2+ reaction. Journal of Materials Chemistry, 2009, 19, 2407.	6.7	84
17	Microwave-assisted reactive sintering and lithium ion conductivity of Li1.3Al0.3Ti1.7(PO4)3 solid electrolyte. Journal of Power Sources, 2018, 378, 48-52.	7.8	77
18	Charge Transfer at Hybrid Interfaces: Plasmonics of Aromatic Thiol-Capped Gold Nanoparticles. ACS Nano, 2015, 9, 7572-7582.	14.6	67

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19	25th Anniversary Article: Exploring Nanoscaled Matter from Speciation to Phase Diagrams: Metal Phosphide Nanoparticles as a Case of Study. Advanced Materials, 2014, 26, 371-390.	21.0	55
20	New Synthesis Strategies for Luminescent YVO₄:Eu and EuVO₄ Nanoparticles with H₂O₂ Selective Sensing Properties. Chemistry of Materials, 2015, 27, 5198-5205.	6.7	53
21	N-Heterocyclic carbene-stabilized gold nanoparticles with tunable sizes. Dalton Transactions, 2018, 47, 6850-6859.	3.3	43
22	In Situ Solidâ€“Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis. Inorganic Chemistry, 2017, 56, 9225-9234.	4.0	42
23	High N-content holey few-layered graphene electrocatalysts: scalable solvent-less production. Journal of Materials Chemistry A, 2015, 3, 1682-1687.	10.3	39
24	Hybrid thickeners in aqueous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 278, 26-32.	4.7	37
25	New route toward nanosized crystalline metal borides with tuneable stoichiometry and variable morphologies. Faraday Discussions, 2016, 191, 511-525.	3.2	37
26	Nanophase Segregation of Self-Assembled Monolayers on Gold Nanoparticles. ACS Nano, 2017, 11, 7371-7381.	14.6	35
27	Selective heterogeneous oriented attachment of manganese oxide nanorods in water: toward 3D nanoarchitectures. Journal of Materials Chemistry, 2009, 19, 7947.	6.7	33
28	Chromium nitride and carbide nanofibers: from composites to mesostructures. Journal of Materials Chemistry, 2011, 21, 2136-2143.	6.7	31
29	Beyond the Compositional Threshold of Nanoparticle-Based Materials. Accounts of Chemical Research, 2018, 51, 930-939.	15.6	29
30	Design of Hierarchical Coreâˆ'Corona Architectures of Layered Manganese Oxides by Aqueous Precipitation. Chemistry of Materials, 2008, 20, 6140-6147.	6.7	27
31	One step microwave-assisted synthesis of nanocrystalline WO_xâ€“ZrO₂ acid catalysts. Catalysis Science and Technology, 2016, 6, 8257-8267.	4.1	27
32	A high pressure pathway toward boron-based nanostructured solids. Dalton Transactions, 2018, 47, 7634-7639.	3.3	27
33	Structureâ€“Activity Relationship in Manganese Perovskite Oxide Nanocrystals from Molten Salts for Efficient Oxygen Reduction Reaction Electrocatalysis. Chemistry of Materials, 2020, 32, 4241-4247.	6.7	27
34	Twinning Driven Growth of Manganese Oxide Hollow Cones through Self-Assembly of Nanorods in Water. Crystal Growth and Design, 2009, 9, 2562-2565.	3.0	25
35	Evolution of Nanostructured Manganese (Oxyhydr)oxides in Water through MnO₄^{â^'} Reduction. Crystal Growth and Design, 2010, 10, 2168-2173.	3.0	25
36	Original Electrospun Coreâ€“Shell Nanostructured MagnÃ©li Titanium Oxide Fibers and their Electrical Properties. Advanced Materials, 2014, 26, 2654-2658.	21.0	25

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37	The core contribution of transmission electron microscopy to functional nanomaterials engineering. Nanoscale, 2016, 8, 1260-1279.	5.6	24
38	Optimized Design of Ptâ€Doped Bi₂WO₆ Nanoparticle Synthesis for Enhanced Photocatalytic Properties. European Journal of Inorganic Chemistry, 2016, 2016, 2159-2165.	2.0	22
39	Thermoelectric properties of boron carbide/HfB2 composites. Materials for Renewable and Sustainable Energy, 2017, 6, 1.	3.6	22
40	Phase selective synthesis of nickel silicide nanocrystals in molten salts for electrocatalysis of the oxygen evolution reaction. Nanoscale, 2020, 12, 15209-15213.	5.6	22
41	Nanoparticles of Low-Valence Vanadium Oxyhydroxides: Reaction Mechanisms and Polymorphism Control by Low-Temperature Aqueous Chemistry. Inorganic Chemistry, 2016, 55, 11502-11512.	4.0	21
42	Quantified Binding Scale of Competing Ligands at the Surface of Gold Nanoparticles: The Role of Entropy and Intermolecular Forces. Small, 2017, 13, 1604028.	10.0	21
43	Surfaceâ€Driven Magnetotransport in Perovskite Nanocrystals. Advanced Materials, 2017, 29, 1604745.	21.0	21
44	Nonaqueous Route toward a Nanostructured Hybrid Titanate. Chemistry of Materials, 2010, 22, 2125-2131.	6.7	20
45	Direct Synthesis of Nâ€Heterocyclic Carbeneâ€Stabilized Copper Nanoparticles from an Nâ€Heterocyclic Carbeneâ€“Borane. Chemistry - A European Journal, 2019, 25, 11481-11485.	3.3	20
46	Co₃O₄/rGO Catalysts for Oxygen Electrocatalysis: On the Role of the Oxide/Carbon Interaction. Journal of the Electrochemical Society, 2019, 166, H94-H102.	2.9	18
47	Nacre-bionic nanocomposite membrane for efficient in-plane dissipation heat harvest under high temperature. Journal of Materiomics, 2021, 7, 219-225.	5.7	18
48	Nickel-Doped Sodium Cobaltite 2D Nanomaterials: Synthesis and Electrocatalytic Properties. Chemistry of Materials, 2018, 30, 4986-4994.	6.7	17
49	Converting silicon nanoparticles into nickel iron silicide nanocrystals within molten salts for water oxidation electrocatalysis. Journal of Materials Chemistry A, 2022, 10, 1350-1358.	10.3	17
50	Sustainable one-pot aqueous route to hierarchical carbonâ€“MoO2 electrodes for Li-ion batteries. RSC Advances, 2014, 4, 21208.	3.6	14
51	Rationalizing the formation of binary mixed thiol self-assembled monolayers. Materials Today Chemistry, 2017, 5, 34-42.	3.5	13
52	Synthesis of a manganese oxide nanocomposite through heteroepitaxy in aqueous medium. Chemical Communications, 2009, , 674-676.	4.1	11
53	Synthesis and self assembly processes of aqueous thermoresponsive hybrid formulations. Soft Matter, 2010, 6, 2178.	2.7	9
54	An expeditious synthesis of early transition metal carbide nanoparticles on graphitic carbons. Chemical Communications, 2016, 52, 9546-9549.	4.1	9

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55	Experimental Descriptors for the Synthesis of Multicationic Nickel Perovskite Nanoparticles for Oxygen Reduction. ACS Applied Nano Materials, 2020, 3, 7482-7489.	5.0	9
56	Improvements in photostability and sensing properties of EuVO4 nanoparticles by microwave-assisted solâ€“gel route for detection of H2O2 vapors. Journal of Sol-Gel Science and Technology, 2016, 79, 381-388.	2.4	8
57	Anisotropic nanoparticles: general discussion. Faraday Discussions, 2016, 191, 229-254.	3.2	8
58	Modified Synthesis Strategies for the Stabilization of low n Ti_nO_{2nâ€“1} MagnÃ©li Phases. Chemical Record, 2018, 18, 1105-1113.	5.8	8
59	Versatile Molten Salt Synthesis of Manganite Perovskite Oxide Nanocrystals and Their Magnetic Properties. ChemNanoMat, 2019, 5, 358-363.	2.8	8
60	Unambiguous localization of titanium and iron cations in doped manganese hollandite nanowires. Chemical Communications, 2020, 56, 4812-4815.	4.1	6
61	Multicationic Sr4Mn3O10 mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. Materials Horizons, 2018, 5, 480-485.	12.2	5
62	High-Pressure Melting Curve of Zintl Sodium Silicide Na4Si4 by In Situ Electrical Measurements. Inorganic Chemistry, 2019, 58, 10822-10828.	4.0	5
63	Exceptional Low-Temperature CO Oxidation over Noble-Metal-Free Iron-Doped Hollandites: An In-Depth Analysis of the Influence of the Defect Structure on Catalytic Performance. ACS Catalysis, 2021, 11, 15026-15039.	11.2	5
64	A Confinementâ€Ðriven Nucleation Mechanism of Metal Oxide Nanoparticles Obtained via Thermal Decomposition in Organic Media. Small, 2022, 18, e2200414.	10.0	5
65	Interlayer Silylation of Layered Octosilicate with Organoalkoxysilanes: Effects of Tetrabutylammonium Fluoride as a Catalyst and the Functional Groups of Silanes. European Journal of Inorganic Chemistry, 2021, 2021, 1836-1845.	2.0	4
66	Geoinspired syntheses of materials and nanomaterials. Chemical Society Reviews, 2022, 51, 4828-4866.	38.1	4
67	Janus and patchy nanoparticles: general discussion. Faraday Discussions, 2016, 191, 117-139.	3.2	3
68	Different Reactivity of Rutile and Anatase TiO₂ Nanoparticles: Synthesis and Surface States of Nanoparticles of Mixedâ€Valence MagnÃ©li Oxides. Chemistry - A European Journal, 2019, 25, 11114-11120.	3.3	3
69	Correlative Microscopy Insight on Electrodeposited Ultrathin Graphite Oxide Films. Journal of Physical Chemistry Letters, 2020, 11, 9117-9122.	4.6	3
70	Electron Precise Sodium Carbaboride Nanocrystals from Molten Salts: Single Sources to Boron Carbides. Inorganic Chemistry, 2021, 60, 4252-4260.	4.0	3
71	Liquid-Phase Synthesis, Sintering, and Transport Properties of Nanoparticle-Based Boron-Rich Composites. Chemistry of Materials, 2021, 33, 2099-2109.	6.7	3
72	Nonclassical Crystallization and Size Control of Ultra-Small MoO₂Nanoparticles in Water. Particle and Particle Systems Characterization, 2015, 32, 251-257.	2.3	2

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73	Urolithiasis: What can we learn from a Nature which dysfunctions?. Comptes Rendus Chimie, 2016, 19, 1558-1564.	0.5	2
74	Dumbbell-Shaped T8 -POSS with Functional Organic Linkers. European Journal of Inorganic Chemistry, 2019, 2019, 3148-3156.	2.0	2
75	Hydroxyapatites as Versatile Inorganic Hosts of Unusual Pentavalent Manganese Cations. Chemistry of Materials, 2020, 32, 10584-10593.	6.7	2
76	Liquid Processing of Bismuthâ€“Silica Nanoparticle/Aluminum Matrix Nanocomposites for Heat Storage Applications. ACS Applied Nano Materials, 2022, 5, 1917-1924.	5.0	2
77	Studying Electrocatalyts in Operando Conditions: Correlating TEM Imaging and X-Ray Spectroscopies. Microscopy and Microanalysis, 2019, 25, 37-38.	0.4	1
78	Synthesis in Molten Salts and Characterization of Li₆B₁₈(Li₂O)_x Nanoparticles. Inorganic Chemistry, 2020, 59, 14983-14988.	4.0	1
79	A straightforward approach to high purity sodium silicide Na4Si4. Dalton Transactions, 2021, 50, 16703-16710.	3.3	1
80	Inside Cover: A General Solution Route toward Metal Boride Nanocrystals (Angew. Chem. Int. Ed.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	13.8	0
81	Applications: general discussion. Faraday Discussions, 2016, 191, 565-595.	3.2	0
82	Ultrasoundâ€Assisted Liquidâ€Phase Synthesis and Mechanical Properties of Aluminum Matrix Nanocomposites Incorporating Boride Nanocrystals. Small, 2021, , 2104091.	10.0	0