David Portehault

List of Publications by Year
in descending order

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	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
2	Liquid Processing of Bismuthâ€“Silica Nanoparticle/Aluminum Matrix Nanocomposites for Heat Storage Applications. ACS Applied Nano Materials, 2022, 5, 1917-1924.	5.0	2
3	A Confinementâ€Driven Nucleation Mechanism of Metal Oxide Nanoparticles Obtained via Thermal Decomposition in Organic Media. Small, 2022, 18, e2200414.	10.0	5
4	Geoinspired syntheses of materials and nanomaterials. Chemical Society Reviews, 2022, 51, 4828-4866.	38.1	4
5	Nacre-bionic nanocomposite membrane for efficient in-plane dissipation heat harvest under high temperature. Journal of Materiomics, 2021, 7, 219-225.	5.7	18
6	Electron Precise Sodium Carbaboride Nanocrystals from Molten Salts: Single Sources to Boron Carbides. Inorganic Chemistry, 2021, 60, 4252-4260.	4.0	3
7	Liquid-Phase Synthesis, Sintering, and Transport Properties of Nanoparticle-Based Boron-Rich Composites. Chemistry of Materials, 2021, 33, 2099-2109.	6.7	3
8	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
9	A straightforward approach to high purity sodium silicide Na4Si4. Dalton Transactions, 2021, 50, 16703-16710.	3.3	1
10	Ultrasoundâ€Assisted Liquidâ€Phase Synthesis and Mechanical Properties of Aluminum Matrix Nanocomposites Incorporating Boride Nanocrystals. Small, 2021, , 2104091.	10.0	0
11	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
12	Correlative Microscopy Insight on Electrodeposited Ultrathin Graphite Oxide Films. Journal of Physical Chemistry Letters, 2020, 11, 9117-9122.	4.6	3
13	Synthesis in Molten Salts and Characterization of Li₆B₁₈(Li₂O)_x Nanoparticles. Inorganic Chemistry, 2020, 59, 14983-14988.	4.0	1
14	Experimental Descriptors for the Synthesis of Multicationic Nickel Perovskite Nanoparticles for Oxygen Reduction. ACS Applied Nano Materials, 2020, 3, 7482-7489.	5.0	9
15	Hydroxyapatites as Versatile Inorganic Hosts of Unusual Pentavalent Manganese Cations. Chemistry of Materials, 2020, 32, 10584-10593.	6.7	2
16	Unambiguous localization of titanium and iron cations in doped manganese hollandite nanowires. Chemical Communications, 2020, 56, 4812-4815.	4.1	6
17	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
18	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

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19	High-Pressure Melting Curve of Zintl Sodium Silicide Na4Si4 by In Situ Electrical Measurements. Inorganic Chemistry, 2019, 58, 10822-10828.	4.0	5
20	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
21	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
22	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
23	Dumbbell-Shaped T8 -POSS with Functional Organic Linkers. European Journal of Inorganic Chemistry, 2019, 2019, 3148-3156.	2.0	2
24	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
25	Versatile Molten Salt Synthesis of Manganite Perovskite Oxide Nanocrystals and Their Magnetic Properties. ChemNanoMat, 2019, 5, 358-363.	2.8	8
26	Studying Electrocatalyts in Operando Conditions: Correlating TEM Imaging and X-Ray Spectroscopies. Microscopy and Microanalysis, 2019, 25, 37-38.	0.4	1
27	Structure and electrochromism of two-dimensional octahedral molecular sieve hâ€™-WO3. Nature Communications, 2019, 10, 327.	12.8	88
28	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
29	N-Heterocyclic carbene-stabilized gold nanoparticles with tunable sizes. Dalton Transactions, 2018, 47, 6850-6859.	3.3	43
30	Multicationic Sr4Mn3O10 mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. Materials Horizons, 2018, 5, 480-485.	12.2	5
31	Beyond the Compositional Threshold of Nanoparticle-Based Materials. Accounts of Chemical Research, 2018, 51, 930-939.	15.6	29
32	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
33	Nickel-Doped Sodium Cobaltite 2D Nanomaterials: Synthesis and Electrocatalytic Properties. Chemistry of Materials, 2018, 30, 4986-4994.	6.7	17
34	A high pressure pathway toward boron-based nanostructured solids. Dalton Transactions, 2018, 47, 7634-7639.	3.3	27
35	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
36	Nanophase Segregation of Self-Assembled Monolayers on Gold Nanoparticles. ACS Nano, 2017, 11, 7371-7381.	14.6	35

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37	Thermoelectric properties of boron carbide/HfB2 composites. Materials for Renewable and Sustainable Energy, 2017, 6, 1.	3.6	22
38	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
39	Surfaceâ€Driven Magnetotransport in Perovskite Nanocrystals. Advanced Materials, 2017, 29, 1604745.	21.0	21
40	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
41	In Situ Solidâ€“Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis. Inorganic Chemistry, 2017, 56, 9225-9234.	4.0	42
42	Rationalizing the formation of binary mixed thiol self-assembled monolayers. Materials Today Chemistry, 2017, 5, 34-42.	3.5	13
43	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
44	An expeditious synthesis of early transition metal carbide nanoparticles on graphitic carbons. Chemical Communications, 2016, 52, 9546-9549.	4.1	9
45	Optimized Design of Ptâ€Doped Bi₂WO₆ Nanoparticle Synthesis for Enhanced Photocatalytic Properties. European Journal of Inorganic Chemistry, 2016, 2016, 2159-2165.	2.0	22
46	New route toward nanosized crystalline metal borides with tuneable stoichiometry and variable morphologies. Faraday Discussions, 2016, 191, 511-525.	3.2	37
47	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
48	Anisotropic nanoparticles: general discussion. Faraday Discussions, 2016, 191, 229-254.	3.2	8
49	Applications: general discussion. Faraday Discussions, 2016, 191, 565-595.	3.2	0
50	Janus and patchy nanoparticles: general discussion. Faraday Discussions, 2016, 191, 117-139.	3.2	3
51	One step microwave-assisted synthesis of nanocrystalline WO_xâ€“ZrO₂ acid catalysts. Catalysis Science and Technology, 2016, 6, 8257-8267.	4.1	27
52	Urolithiasis: What can we learn from a Nature which dysfunctions?. Comptes Rendus Chimie, 2016, 19, 1558-1564.	0.5	2
53	The core contribution of transmission electron microscopy to functional nanomaterials engineering. Nanoscale, 2016, 8, 1260-1279.	5.6	24
54	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

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55	Charge Transfer at Hybrid Interfaces: Plasmonics of Aromatic Thiol-Capped Gold Nanoparticles. ACS Nano, 2015, 9, 7572-7582.	14.6	67
56	High N-content holey few-layered graphene electrocatalysts: scalable solvent-less production. Journal of Materials Chemistry A, 2015, 3, 1682-1687.	10.3	39
57	Nonclassical Crystallization and Size Control of Ultra-Small MoO‹sub›2‹/sub›Nanoparticles in Water. Particle and Particle Systems Characterization, 2015, 32, 251-257.	2.3	2
58	Original Electrospun Coreâ€“Shell Nanostructured MagnÃ©li Titanium Oxide Fibers and their Electrical Properties. Advanced Materials, 2014, 26, 2654-2658.	21.0	25
59	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
60	Molecular Engineering of Functional Inorganic and Hybrid Materials. Chemistry of Materials, 2014, 26, 221-238.	6.7	147
61	Sustainable one-pot aqueous route to hierarchical carbonâ€“MoO2 electrodes for Li-ion batteries. RSC Advances, 2014, 4, 21208.	3.6	14
62	Nanoscaled Metal Borides and Phosphides: Recent Developments and Perspectives. Chemical Reviews, 2013, 113, 7981-8065.	47.7	877
63	Large scale boron carbon nitride nanosheets with enhanced lithium storage capabilities. Chemical Communications, 2013, 49, 352-354.	4.1	110
64	Porous boron nitride nanosheets for effective water cleaning. Nature Communications, 2013, 4, 1777.	12.8	831
65	Chromium nitride and carbide nanofibers: from composites to mesostructures. Journal of Materials Chemistry, 2011, 21, 2136-2143.	6.7	31
66	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
67	Boron Carbon Nitride Nanostructures from Salt Melts: Tunable Water-Soluble Phosphors. Journal of the American Chemical Society, 2011, 133, 7121-7127.	13.7	428
68	A General Solution Route toward Metal Boride Nanocrystals. Angewandte Chemie - International Edition, 2011, 50, 3262-3265.	13.8	99
69	Inside Cover: A General Solution Route toward Metal Boride Nanocrystals (Angew. Chem. Int. Ed.) Tj ETQq1 1 0.784314 rgBT /Overloc	13.8	0
70	Highâ€Surfaceâ€Area Nanoporous Boron Carbon Nitrides for Hydrogen Storage. Advanced Functional Materials, 2010, 20, 1827-1833.	14.9	153
71	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
72	Nonaqueous Route toward a Nanostructured Hybrid Titanate. Chemistry of Materials, 2010, 22, 2125-2131.	6.7	20

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73	Evolution of Nanostructured Manganese (Oxyhydr)oxides in Water through MnO₄^{â˜’} Reduction. Crystal Growth and Design, 2010, 10, 2168-2173.	3.0	25
74	Synthesis and self assembly processes of aqueous thermoresponsive hybrid formulations. Soft Matter, 2010, 6, 2178.	2.7	9
75	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
76	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
77	Synthesis of a manganese oxide nanocomposite through heteroepitaxy in aqueous medium. Chemical Communications, 2009, , 674-676.	4.1	11
78	Selective heterogeneous oriented attachment of manganese oxide nanorods in water: toward 3D nanoarchitectures. Journal of Materials Chemistry, 2009, 19, 7947.	6.7	33
79	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
80	Design of Hierarchical Coreâ˜’Corona Architectures of Layered Manganese Oxides by Aqueous Precipitation. Chemistry of Materials, 2008, 20, 6140-6147.	6.7	27
81	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
82	Hybrid thickeners in aqueous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 278, 26-32.	4.7	37