David Portehault

List of Publications by Year in Descending Order

83 papers	4,008 citations	27 h-index	63 g-index
88 ext. papers	4,482 ext. citations	10 avg, IF	5.45 L-index

#	Paper	IF	Citations
83	Converting silicon nanoparticles into nickel iron silicide nanocrystals within molten salts for water oxidation electrocatalysis. *Journal of Materials Chemistry A*, **2022**, 10, 1350-1358	13	1
82	A Confinement-Driven Nucleation Mechanism of Metal Oxide Nanoparticles Obtained via Thermal Decomposition in Organic Media.. *Small*, **2022**, e2200414	11	0
81	Ultrasound-Assisted Liquid-Phase Synthesis and Mechanical Properties of Aluminum Matrix Nanocomposites Incorporating Boride Nanocrystals. *Small*, **2021**, e2104091	11	
80	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	13.1	0
79	A straightforward approach to high purity sodium silicide NaSi. *Dalton Transactions*, **2021**, 50, 16703-16710	4.3	0
78	Liquid-Phase Synthesis, Sintering, and Transport Properties of Nanoparticle-Based Boron-Rich Composites. *Chemistry of Materials*, **2021**, 33, 2099-2109	9.6	1
77	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	2.3	
76	Nacre-bionic nanocomposite membrane for efficient in-plane dissipation heat harvest under high temperature. *Journal of Materiomics*, **2021**, 7, 219-225	6.7	6
75	Electron Precise Sodium Carbaboride Nanocrystals from Molten Salts: Single Sources to Boron Carbides. *Inorganic Chemistry*, **2021**, 60, 4252-4260	5.1	2
74	Unambiguous localization of titanium and iron cations in doped manganese hollandite nanowires. *Chemical Communications*, **2020**, 56, 4812-4815	5.8	2
73	Structure–Activity Relationship in Manganese Perovskite Oxide Nanocrystals from Molten Salts for Efficient Oxygen Reduction Reaction Electrocatalysis. *Chemistry of Materials*, **2020**, 32, 4241-4247	9.6	15
72	Phase selective synthesis of nickel silicide nanocrystals in molten salts for electrocatalysis of the oxygen evolution reaction. *Nanoscale*, **2020**, 12, 15209-15213	7.7	13
71	Correlative Microscopy Insight on Electrodeposited Ultrathin Graphite Oxide Films. *Journal of Physical Chemistry Letters*, **2020**, 11, 9117-9122	6.4	3
70	Synthesis in Molten Salts and Characterization of LiB(LiO) Nanoparticles. *Inorganic Chemistry*, **2020**, 59, 14983-14988	5.1	1
69	Experimental Descriptors for the Synthesis of Multicationic Nickel Perovskite Nanoparticles for Oxygen Reduction. *ACS Applied Nano Materials*, **2020**, 3, 7482-7489	5.6	5
68	Hydroxyapatites as Versatile Inorganic Hosts of Unusual Pentavalent Manganese Cations. *Chemistry of Materials*, **2020**, 32, 10584-10593	9.6	1
67	Morphological and Structural Evolution of CoO Nanoparticles Revealed by Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation. *ACS Nano*, **2019**, 13, 11372-11381	16.7	76

66	Direct Synthesis of N-Heterocyclic Carbene-Stabilized Copper Nanoparticles from an N-Heterocyclic Carbene-Borane. *Chemistry - A European Journal*, **2019**, 25, 11481-11485	4.8	12
65	Different Reactivity of Rutile and Anatase TiO Nanoparticles: Synthesis and Surface States of Nanoparticles of Mixed-Valence Magn Oxides. *Chemistry - A European Journal*, **2019**, 25, 11114-11120	4.8	1
64	Dumbbell-Shaped T8-POSS with Functional Organic Linkers. *European Journal of Inorganic Chemistry*, **2019**, 2019, 3148-3156	2.3	1
63	Co3O4/rGO Catalysts for Oxygen Electrocatalysis: On the Role of the Oxide/Carbon Interaction. *Journal of the Electrochemical Society*, **2019**, 166, H94-H102	3.9	12
62	Versatile Molten Salt Synthesis of Manganite Perovskite Oxide Nanocrystals and Their Magnetic Properties. *ChemNanoMat*, **2019**, 5, 358-363	3.5	5
61	Studying Electrocatalyts in Operando Conditions: Correlating TEM Imaging and X-Ray Spectroscopies. *Microscopy and Microanalysis*, **2019**, 25, 37-38	0.5	1
60	High-Pressure Melting Curve of Zintl Sodium Silicide NaSi by In Situ Electrical Measurements. *Inorganic Chemistry*, **2019**, 58, 10822-10828	5.1	4
59	Structure and electrochromism of two-dimensional octahedral molecular sieve hSWO. *Nature Communications*, **2019**, 10, 327	17.4	48
58	Modified Synthesis Strategies for the Stabilization of low n Ti O Magn Phases. *Chemical Record*, **2018**, 18, 1105-1113	6.6	6
57	N-Heterocyclic carbene-stabilized gold nanoparticles with tunable sizes. *Dalton Transactions*, **2018**, 47, 6850-6859	4.3	30
56	Multicationic Sr4Mn3O10 mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. *Materials Horizons*, **2018**, 5, 480-485	14.4	4
55	Beyond the Compositional Threshold of Nanoparticle-Based Materials. *Accounts of Chemical Research*, **2018**, 51, 930-939	24.3	21
54	Nickel-Doped Sodium Cobaltite 2D Nanomaterials: Synthesis and Electrocatalytic Properties. *Chemistry of Materials*, **2018**, 30, 4986-4994	9.6	11
53	A high pressure pathway toward boron-based nanostructured solids. *Dalton Transactions*, **2018**, 47, 7634-7639	4.3	22
52	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	8.9	49
51	High and Stable Ionic Conductivity in 2D Nanofluidic Ion Channels between Boron Nitride Layers. *Journal of the American Chemical Society*, **2017**, 139, 6314-6320	16.4	127
50	Nanophase Segregation of Self-Assembled Monolayers on Gold Nanoparticles. *ACS Nano*, **2017**, 11, 7371-7381	13.9	29
49	Thermoelectric properties of boron carbide/HfB2 composites. *Materials for Renewable and Sustainable Energy*, **2017**, 6, 1	4.7	14

48	Quantified Binding Scale of Competing Ligands at the Surface of Gold Nanoparticles: The Role of Entropy and Intermolecular Forces. *Small*, **2017**, 13, 1604028	11	17
47	Surface-Driven Magnetotransport in Perovskite Nanocrystals. *Advanced Materials*, **2017**, 29, 1604745	24	18
46	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	20.1	134
45	In Situ Solid-Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis. *Inorganic Chemistry*, **2017**, 56, 9225-9234	5.1	25
44	Rationalizing the formation of binary mixed thiol self-assembled monolayers. *Materials Today Chemistry*, **2017**, 5, 34-42	6.2	12
43	Janus and patchy nanoparticles: general discussion. *Faraday Discussions*, **2016**, 191, 117-139	3.6	3
42	One step microwave-assisted synthesis of nanocrystalline WOx/ZrO2 acid catalysts. *Catalysis Science and Technology*, **2016**, 6, 8257-8267	5.5	18
41	Urolithiasis: What can we learn from a Nature which dysfunctions?. *Comptes Rendus Chimie*, **2016**, 19, 1558-1564	2.7	1
40	The core contribution of transmission electron microscopy to functional nanomaterials engineering. *Nanoscale*, **2016**, 8, 1260-79	7.7	19
39	Improvements in photostability and sensing properties of EuVO4 nanoparticles by microwave-assisted sol–gel route for detection of H2O2 vapors. *Journal of Sol-Gel Science and Technology*, **2016**, 79, 381-388	2.3	6
38	An expeditious synthesis of early transition metal carbide nanoparticles on graphitic carbons. *Chemical Communications*, **2016**, 52, 9546-9	5.8	9
37	Optimized Design of Pt-Doped Bi2WO6 Nanoparticle Synthesis for Enhanced Photocatalytic Properties. *European Journal of Inorganic Chemistry*, **2016**, 2016, 2159-2165	2.3	17
36	New route toward nanosized crystalline metal borides with tuneable stoichiometry and variable morphologies. *Faraday Discussions*, **2016**, 191, 511-525	3.6	29
35	Nanoparticles of Low-Valence Vanadium Oxyhydroxides: Reaction Mechanisms and Polymorphism Control by Low-Temperature Aqueous Chemistry. *Inorganic Chemistry*, **2016**, 55, 11502-11512	5.1	15
34	Anisotropic nanoparticles: general discussion. *Faraday Discussions*, **2016**, 191, 229-254	3.6	5
33	Applications: general discussion. *Faraday Discussions*, **2016**, 191, 565-595	3.6	
32	New Synthesis Strategies for Luminescent YVO4:Eu and EuVO4 Nanoparticles with H2O2 Selective Sensing Properties. *Chemistry of Materials*, **2015**, 27, 5198-5205	9.6	46
31	Charge Transfer at Hybrid Interfaces: Plasmonics of Aromatic Thiol-Capped Gold Nanoparticles. *ACS Nano*, **2015**, 9, 7572-82	16.7	53

30	High N-content holey few-layered graphene electrocatalysts: scalable solvent-less production. *Journal of Materials Chemistry A*, **2015**, 3, 1682-1687	13	35
29	Nonclassical Crystallization and Size Control of Ultra-Small MoO2 Nanoparticles in Water. *Particle and Particle Systems Characterization*, **2015**, 32, 251-257	3.1	2
28	Integrative Sol Gel Chemistry **2015**, 71-120		1
27	Molecular Engineering of Functional Inorganic and Hybrid Materials. *Chemistry of Materials*, **2014**, 26, 221-238	9.6	127
26	Sustainable one-pot aqueous route to hierarchical carbon MoO2 electrodes for Li-ion batteries. *RSC Advances*, **2014**, 4, 21208	3.7	14
25	Original electrospun core-shell nanostructured Magn titanium oxide fibers and their electrical properties. *Advanced Materials*, **2014**, 26, 2654-8, 2614	24	21
24	25th anniversary article: exploring nanoscaled matter from speciation to phase diagrams: metal phosphide nanoparticles as a case of study. *Advanced Materials*, **2014**, 26, 371-90	24	43
23	Nanoscaled metal borides and phosphides: recent developments and perspectives. *Chemical Reviews*, **2013**, 113, 7981-8065	68.1	740
22	Large scale boron carbon nitride nanosheets with enhanced lithium storage capabilities. *Chemical Communications*, **2013**, 49, 352-4	5.8	94
21	Porous boron nitride nanosheets for effective water cleaning. *Nature Communications*, **2013**, 4, 1777	17.4	708
20	Boron carbon nitride nanostructures from salt melts: tunable water-soluble phosphors. *Journal of the American Chemical Society*, **2011**, 133, 7121-7	16.4	360
19	A General Solution Route toward Metal Boride Nanocrystals. *Angewandte Chemie*, **2011**, 123, 3320-3323	3.6	21
18	A general solution route toward metal boride nanocrystals. *Angewandte Chemie - International Edition*, **2011**, 50, 3262-5	16.4	89
17	Inside Cover: A General Solution Route toward Metal Boride Nanocrystals (Angew. Chem. Int. Ed. 14/2011). *Angewandte Chemie - International Edition*, **2011**, 50, 3092-3092	16.4	
16	Chromium nitride and carbide nanofibers: from composites to mesostructures. *Journal of Materials Chemistry*, **2011**, 21, 2136-2143		30
15	Facile general route toward tunable Magn nanostructures and their use as thermoelectric metal oxide/carbon nanocomposites. *ACS Nano*, **2011**, 5, 9052-61	16.7	76
14	Nonaqueous Route toward a Nanostructured Hybrid Titanate. *Chemistry of Materials*, **2010**, 22, 2125-2131	9.6	18
13	Evolution of Nanostructured Manganese (Oxyhydr)oxides in Water through MnO4 Reduction. *Crystal Growth and Design*, **2010**, 10, 2168-2173	3.5	19

12	Synthesis and self assembly processes of aqueous thermoresponsive hybrid formulations. *Soft Matter*, **2010**, 6, 2178	3.6	8
11	High-Surface-Area Nanoporous Boron Carbon Nitrides for Hydrogen Storage. *Advanced Functional Materials*, **2010**, 20, 1827-1833	15.6	138
10	Design of metal oxide nanoparticles: Control of size, shape, crystalline structure and functionalization by aqueous chemistry. *Comptes Rendus Chimie*, **2010**, 13, 40-51	2.7	72
9	Twinning Driven Growth of Manganese Oxide Hollow Cones through Self-Assembly of Nanorods in Water. *Crystal Growth and Design*, **2009**, 9, 2562-2565	3.5	22
8	Structural and morphological control of manganese oxide nanoparticles upon soft aqueous precipitation through MnO4/Mn2+ reaction. *Journal of Materials Chemistry*, **2009**, 19, 2407		77
7	Synthesis of a manganese oxide nanocomposite through heteroepitaxy in aqueous medium. *Chemical Communications*, **2009**, 674-6	5.8	11
6	Selective heterogeneous oriented attachment of manganese oxide nanorods in water: toward 3D nanoarchitectures. *Journal of Materials Chemistry*, **2009**, 19, 7947		28
5	Design of Hierarchical Core–Corona Architectures of Layered Manganese Oxides by Aqueous Precipitation. *Chemistry of Materials*, **2008**, 20, 6140-6147	9.6	26
4	A core-corona hierarchical manganese oxide and its formation by an aqueous soft chemistry mechanism. *Angewandte Chemie - International Edition*, **2008**, 47, 6441-4	16.4	81
3	A Core–Corona Hierarchical Manganese Oxide and its Formation by an Aqueous Soft Chemistry Mechanism. *Angewandte Chemie*, **2008**, 120, 6541-6544	3.6	6
2	Morphology Control of Cryptomelane Type MnO2Nanowires by Soft Chemistry. Growth Mechanisms in Aqueous Medium. *Chemistry of Materials*, **2007**, 19, 5410-5417	9.6	158
1	Hybrid thickeners in aqueous media. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2006**, 278, 26-32	5.1	32