

David Portehault

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Nanoscaled metal borides and phosphides: recent developments and perspectives. <i>Chemical Reviews</i> , 2013 , 113, 7981-8065	68.1	740
82	Porous boron nitride nanosheets for effective water cleaning. <i>Nature Communications</i> , 2013 , 4, 1777	17.4	708
81	Boron carbon nitride nanostructures from salt melts: tunable water-soluble phosphors. <i>Journal of the American Chemical Society</i> , 2011 , 133, 7121-7	16.4	360
80	Morphology Control of Cryptomelane Type MnO ₂ Nanowires by Soft Chemistry. Growth Mechanisms in Aqueous Medium. <i>Chemistry of Materials</i> , 2007 , 19, 5410-5417	9.6	158
79	High-Surface-Area Nanoporous Boron Carbon Nitrides for Hydrogen Storage. <i>Advanced Functional Materials</i> , 2010 , 20, 1827-1833	15.6	138
78	Porous Boron Carbon Nitride Nanosheets as Efficient Metal-Free Catalysts for the Oxygen Reduction Reaction in Both Alkaline and Acidic Solutions. <i>ACS Energy Letters</i> , 2017 , 2, 306-312	20.1	134
77	High and Stable Ionic Conductivity in 2D Nanofluidic Ion Channels between Boron Nitride Layers. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6314-6320	16.4	127
76	Molecular Engineering of Functional Inorganic and Hybrid Materials. <i>Chemistry of Materials</i> , 2014 , 26, 221-238	9.6	127
75	Large scale boron carbon nitride nanosheets with enhanced lithium storage capabilities. <i>Chemical Communications</i> , 2013 , 49, 352-4	5.8	94
74	A general solution route toward metal boride nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 3262-5	16.4	89
73	A core-corona hierarchical manganese oxide and its formation by an aqueous soft chemistry mechanism. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 6441-4	16.4	81
72	Structural and morphological control of manganese oxide nanoparticles upon soft aqueous precipitation through MnO ₄ ²⁻ /Mn ²⁺ reaction. <i>Journal of Materials Chemistry</i> , 2009 , 19, 2407		77
71	Morphological and Structural Evolution of CoO Nanoparticles Revealed by Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation. <i>ACS Nano</i> , 2019 , 13, 11372-11381	16.7	76
70	Facile general route toward tunable MnO nanosheet structures and their use as thermoelectric metal oxide/carbon nanocomposites. <i>ACS Nano</i> , 2011 , 5, 9052-61	16.7	76
69	Design of metal oxide nanoparticles: Control of size, shape, crystalline structure and functionalization by aqueous chemistry. <i>Comptes Rendus Chimie</i> , 2010 , 13, 40-51	2.7	72
68	Charge Transfer at Hybrid Interfaces: Plasmonics of Aromatic Thiol-Capped Gold Nanoparticles. <i>ACS Nano</i> , 2015 , 9, 7572-82	16.7	53
67	Microwave-assisted reactive sintering and lithium ion conductivity of Li _{1.3} Al _{0.3} Ti _{1.7} (PO ₄) ₃ solid electrolyte. <i>Journal of Power Sources</i> , 2018 , 378, 48-52	8.9	49

66	Structure and electrochromism of two-dimensional octahedral molecular sieve hSWO. <i>Nature Communications</i> , 2019 , 10, 327	17.4	48
65	New Synthesis Strategies for Luminescent YVO ₄ :Eu and EuVO ₄ Nanoparticles with H ₂ O ₂ Selective Sensing Properties. <i>Chemistry of Materials</i> , 2015 , 27, 5198-5205	9.6	46
64	25th anniversary article: exploring nanoscaled matter from speciation to phase diagrams: metal phosphide nanoparticles as a case of study. <i>Advanced Materials</i> , 2014 , 26, 371-90	24	43
63	High N-content holey few-layered graphene electrocatalysts: scalable solvent-less production. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1682-1687	13	35
62	Hybrid thickeners in aqueous media. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2006 , 278, 26-32	5.1	32
61	N-Heterocyclic carbene-stabilized gold nanoparticles with tunable sizes. <i>Dalton Transactions</i> , 2018 , 47, 6850-6859	4.3	30
60	Chromium nitride and carbide nanofibers: from composites to mesostructures. <i>Journal of Materials Chemistry</i> , 2011 , 21, 2136-2143		30
59	Nanophase Segregation of Self-Assembled Monolayers on Gold Nanoparticles. <i>ACS Nano</i> , 2017 , 11, 7371-7381	16.3	29
58	New route toward nanosized crystalline metal borides with tuneable stoichiometry and variable morphologies. <i>Faraday Discussions</i> , 2016 , 191, 511-525	3.6	29
57	Selective heterogeneous oriented attachment of manganese oxide nanorods in water: toward 3D nanoarchitectures. <i>Journal of Materials Chemistry</i> , 2009 , 19, 7947		28
56	Design of Hierarchical Core-Shell Architectures of Layered Manganese Oxides by Aqueous Precipitation. <i>Chemistry of Materials</i> , 2008 , 20, 6140-6147	9.6	26
55	In Situ Solid-Gas Reactivity of Nanoscaled Metal Borides from Molten Salt Synthesis. <i>Inorganic Chemistry</i> , 2017 , 56, 9225-9234	5.1	25
54	A high pressure pathway toward boron-based nanostructured solids. <i>Dalton Transactions</i> , 2018 , 47, 7634-7639	4.5	22
53	Twinning Driven Growth of Manganese Oxide Hollow Cones through Self-Assembly of Nanorods in Water. <i>Crystal Growth and Design</i> , 2009 , 9, 2562-2565	3.5	22
52	Beyond the Compositional Threshold of Nanoparticle-Based Materials. <i>Accounts of Chemical Research</i> , 2018 , 51, 930-939	24.3	21
51	Original electrospun core-shell nanostructured Magn β titanium oxide fibers and their electrical properties. <i>Advanced Materials</i> , 2014 , 26, 2654-8, 2614	24	21
50	A General Solution Route toward Metal Boride Nanocrystals. <i>Angewandte Chemie</i> , 2011 , 123, 3320-3323	3.6	21
49	The core contribution of transmission electron microscopy to functional nanomaterials engineering. <i>Nanoscale</i> , 2016 , 8, 1260-79	7.7	19

48	Evolution of Nanostructured Manganese (Oxyhydr)oxides in Water through MnO ₄ ⁻ Reduction. <i>Crystal Growth and Design</i> , 2010 , 10, 2168-2173	3.5	19
47	Surface-Driven Magnetotransport in Perovskite Nanocrystals. <i>Advanced Materials</i> , 2017 , 29, 1604745	24	18
46	One step microwave-assisted synthesis of nanocrystalline WO ₃ /ZrO ₂ acid catalysts. <i>Catalysis Science and Technology</i> , 2016 , 6, 8257-8267	5.5	18
45	Nonaqueous Route toward a Nanostructured Hybrid Titanate. <i>Chemistry of Materials</i> , 2010 , 22, 2125-2131	16	18
44	Quantified Binding Scale of Competing Ligands at the Surface of Gold Nanoparticles: The Role of Entropy and Intermolecular Forces. <i>Small</i> , 2017 , 13, 1604028	11	17
43	Optimized Design of Pt-Doped Bi ₂ WO ₆ Nanoparticle Synthesis for Enhanced Photocatalytic Properties. <i>European Journal of Inorganic Chemistry</i> , 2016 , 2016, 2159-2165	2.3	17
42	Structure-Activity Relationship in Manganese Perovskite Oxide Nanocrystals from Molten Salts for Efficient Oxygen Reduction Reaction Electrocatalysis. <i>Chemistry of Materials</i> , 2020 , 32, 4241-4247	9.6	15
41	Nanoparticles of Low-Valence Vanadium Oxyhydroxides: Reaction Mechanisms and Polymorphism Control by Low-Temperature Aqueous Chemistry. <i>Inorganic Chemistry</i> , 2016 , 55, 11502-11512	5.1	15
40	Thermoelectric properties of boron carbide/HfB ₂ composites. <i>Materials for Renewable and Sustainable Energy</i> , 2017 , 6, 1	4.7	14
39	Sustainable one-pot aqueous route to hierarchical carbon/MoO ₂ electrodes for Li-ion batteries. <i>RSC Advances</i> , 2014 , 4, 21208	3.7	14
38	Phase selective synthesis of nickel silicide nanocrystals in molten salts for electrocatalysis of the oxygen evolution reaction. <i>Nanoscale</i> , 2020 , 12, 15209-15213	7.7	13
37	Direct Synthesis of N-Heterocyclic Carbene-Stabilized Copper Nanoparticles from an N-Heterocyclic Carbene-Borane. <i>Chemistry - A European Journal</i> , 2019 , 25, 11481-11485	4.8	12
36	Co ₃ O ₄ /rGO Catalysts for Oxygen Electrocatalysis: On the Role of the Oxide/Carbon Interaction. <i>Journal of the Electrochemical Society</i> , 2019 , 166, H94-H102	3.9	12
35	Rationalizing the formation of binary mixed thiol self-assembled monolayers. <i>Materials Today Chemistry</i> , 2017 , 5, 34-42	6.2	12
34	Nickel-Doped Sodium Cobaltite 2D Nanomaterials: Synthesis and Electrocatalytic Properties. <i>Chemistry of Materials</i> , 2018 , 30, 4986-4994	9.6	11
33	Synthesis of a manganese oxide nanocomposite through heteroepitaxy in aqueous medium. <i>Chemical Communications</i> , 2009 , 674-6	5.8	11
32	An expeditious synthesis of early transition metal carbide nanoparticles on graphitic carbons. <i>Chemical Communications</i> , 2016 , 52, 9546-9	5.8	9
31	Synthesis and self assembly processes of aqueous thermoresponsive hybrid formulations. <i>Soft Matter</i> , 2010 , 6, 2178	3.6	8

30	Modified Synthesis Strategies for the Stabilization of low n Ti O Magn η Phases. <i>Chemical Record</i> , 2018 , 18, 1105-1113	6.6	6
29	A Core-Shell Hierarchical Manganese Oxide and its Formation by an Aqueous Soft Chemistry Mechanism. <i>Angewandte Chemie</i> , 2008 , 120, 6541-6544	3.6	6
28	Improvements in photostability and sensing properties of EuVO ₄ nanoparticles by microwave-assisted sol-gel route for detection of H ₂ O ₂ vapors. <i>Journal of Sol-Gel Science and Technology</i> , 2016 , 79, 381-388	2.3	6
27	Nacre-bionic nanocomposite membrane for efficient in-plane dissipation heat harvest under high temperature. <i>Journal of Materiomics</i> , 2021 , 7, 219-225	6.7	6
26	Versatile Molten Salt Synthesis of Manganite Perovskite Oxide Nanocrystals and Their Magnetic Properties. <i>ChemNanoMat</i> , 2019 , 5, 358-363	3.5	5
25	Experimental Descriptors for the Synthesis of Multicationic Nickel Perovskite Nanoparticles for Oxygen Reduction. <i>ACS Applied Nano Materials</i> , 2020 , 3, 7482-7489	5.6	5
24	Anisotropic nanoparticles: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 229-254	3.6	5
23	Multicationic Sr ₄ Mn ₃ O ₁₀ mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. <i>Materials Horizons</i> , 2018 , 5, 480-485	14.4	4
22	High-Pressure Melting Curve of Zintl Sodium Silicide NaSi by In Situ Electrical Measurements. <i>Inorganic Chemistry</i> , 2019 , 58, 10822-10828	5.1	4
21	Janus and patchy nanoparticles: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 117-139	3.6	3
20	Correlative Microscopy Insight on Electrodeposited Ultrathin Graphite Oxide Films. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 9117-9122	6.4	3
19	Nonclassical Crystallization and Size Control of Ultra-Small MoO ₂ Nanoparticles in Water. <i>Particle and Particle Systems Characterization</i> , 2015 , 32, 251-257	3.1	2
18	Unambiguous localization of titanium and iron cations in doped manganese hollandite nanowires. <i>Chemical Communications</i> , 2020 , 56, 4812-4815	5.8	2
17	Electron Precise Sodium Carbaboride Nanocrystals from Molten Salts: Single Sources to Boron Carbides. <i>Inorganic Chemistry</i> , 2021 , 60, 4252-4260	5.1	2
16	Different Reactivity of Rutile and Anatase TiO Nanoparticles: Synthesis and Surface States of Nanoparticles of Mixed-Valence Magn η Oxides. <i>Chemistry - A European Journal</i> , 2019 , 25, 11114-11120	4.8	1
15	Dumbbell-Shaped T8-POSS with Functional Organic Linkers. <i>European Journal of Inorganic Chemistry</i> , 2019 , 2019, 3148-3156	2.3	1
14	Studying Electrocatalysts in Operando Conditions: Correlating TEM Imaging and X-Ray Spectroscopies. <i>Microscopy and Microanalysis</i> , 2019 , 25, 37-38	0.5	1
13	Urolithiasis: What can we learn from a Nature which dysfunctions?. <i>Comptes Rendus Chimie</i> , 2016 , 19, 1558-1564	2.7	1

12	Integrative Solid State Chemistry 2015 , 71-120		1
11	Converting silicon nanoparticles into nickel iron silicide nanocrystals within molten salts for water oxidation electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 1350-1358	13	1
10	Synthesis in Molten Salts and Characterization of LiB(LiO) Nanoparticles. <i>Inorganic Chemistry</i> , 2020 , 59, 14983-14988	5.1	1
9	Hydroxyapatites as Versatile Inorganic Hosts of Unusual Pentavalent Manganese Cations. <i>Chemistry of Materials</i> , 2020 , 32, 10584-10593	9.6	1
8	Liquid-Phase Synthesis, Sintering, and Transport Properties of Nanoparticle-Based Boron-Rich Composites. <i>Chemistry of Materials</i> , 2021 , 33, 2099-2109	9.6	1
7	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.. <i>ACS Catalysis</i> , 2021 , 11, 15026-15039	13.1	0
6	A straightforward approach to high purity sodium silicide NaSi. <i>Dalton Transactions</i> , 2021 , 50, 16703-16719	19	0
5	A Confinement-Driven Nucleation Mechanism of Metal Oxide Nanoparticles Obtained via Thermal Decomposition in Organic Media.. <i>Small</i> , 2022 , e2200414	11	0
4	Inside Cover: A General Solution Route toward Metal Boride Nanocrystals (Angew. Chem. Int. Ed. 14/2011). <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 3092-3092	16.4	
3	Ultrasound-Assisted Liquid-Phase Synthesis and Mechanical Properties of Aluminum Matrix Nanocomposites Incorporating Boride Nanocrystals. <i>Small</i> , 2021 , e2104091	11	
2	Interlayer Silylation of Layered Octosilicate with Organoalkoxysilanes: Effects of Tetrabutylammonium Fluoride as a Catalyst and the Functional Groups of Silanes. <i>European Journal of Inorganic Chemistry</i> , 2021 , 2021, 1836-1845	2.3	
1	Applications: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 565-595	3.6	