

Raymond E Schaak

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164
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136
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194
ext. papers

21,152
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L-index

#	Paper	IF	Citations
164	Nanostructured nickel phosphide as an electrocatalyst for the hydrogen evolution reaction. <i>Journal of the American Chemical Society</i> , 2013 , 135, 9267-70	16.4	2259
163	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015 , 9, 11509-39	16.7	1581
162	Highly active electrocatalysis of the hydrogen evolution reaction by cobalt phosphide nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5427-30	16.4	926
161	Transition metal dichalcogenides and beyond: synthesis, properties, and applications of single- and few-layer nanosheets. <i>Accounts of Chemical Research</i> , 2015 , 48, 56-64	24.3	864
160	Diverse Applications of Nanomedicine. <i>ACS Nano</i> , 2017 , 11, 2313-2381	16.7	714
159	Perovskites by Design: A Toolbox of Solid-State Reactions. <i>Chemistry of Materials</i> , 2002 , 14, 1455-1471	9.6	551
158	Synthesis, Characterization, and Properties of Metal Phosphide Catalysts for the Hydrogen-Evolution Reaction. <i>Chemistry of Materials</i> , 2016 , 28, 6017-6044	9.6	414
157	Nanostructured Co ₂ P Electrocatalyst for the Hydrogen Evolution Reaction and Direct Comparison with Morphologically Equivalent CoP. <i>Chemistry of Materials</i> , 2015 , 27, 3769-3774	9.6	388
156	Electrocatalytic and photocatalytic hydrogen production from acidic and neutral-pH aqueous solutions using iron phosphide nanoparticles. <i>ACS Nano</i> , 2014 , 8, 11101-7	16.7	361
155	Converting metals into phosphides: a general strategy for the synthesis of metal phosphide nanocrystals. <i>Journal of the American Chemical Society</i> , 2007 , 129, 1896-7	16.4	343
154	Highly Active Electrocatalysis of the Hydrogen Evolution Reaction by Cobalt Phosphide Nanoparticles. <i>Angewandte Chemie</i> , 2014 , 126, 5531-5534	3.6	339
153	Amorphous Molybdenum Phosphide Nanoparticles for Electrocatalytic Hydrogen Evolution. <i>Chemistry of Materials</i> , 2014 , 26, 4826-4831	9.6	337
152	Single-crystal colloidal nanosheets of GeS and GeSe. <i>Journal of the American Chemical Society</i> , 2010 , 132, 15170-2	16.4	316
151	2D materials advances: from large scale synthesis and controlled heterostructures to improved characterization techniques, defects and applications. <i>2D Materials</i> , 2016 , 3, 042001	5.9	297
150	A total-synthesis framework for the construction of high-order colloidal hybrid nanoparticles. <i>Nature Chemistry</i> , 2011 , 4, 37-44	17.6	294
149	Tutorial on Powder X-ray Diffraction for Characterizing Nanoscale Materials. <i>ACS Nano</i> , 2019 , 13, 7359-7365	16.7	285
148	One-pot synthesis of hollow superparamagnetic CoPt nanospheres. <i>Journal of the American Chemical Society</i> , 2005 , 127, 12504-5	16.4	273

147	Prying Apart Ruddlesden-Popper Phases: Exfoliation into Sheets and Nanotubes for Assembly of Perovskite Thin Films. <i>Chemistry of Materials</i> , 2000 , 12, 3427-3434	9.6	248
146	Electrocatalytic hydrogen evolution using amorphous tungsten phosphide nanoparticles. <i>Chemical Communications</i> , 2014 , 50, 11026-8	5.8	236
145	General Strategy for the Synthesis of Transition Metal Phosphide Films for Electrocatalytic Hydrogen and Oxygen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12798-803	9.5	201
144	Hybrid CuO-TiO _{2-x} N _x hollow nanocubes for photocatalytic conversion of CO ₂ into methane under solar irradiation. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 3915-8	16.4	199
143	Trioctylphosphine: A General Phosphorus Source for the Low-Temperature Conversion of Metals into Metal Phosphides. <i>Chemistry of Materials</i> , 2007 , 19, 4234-4242	9.6	184
142	A precursor-limited nanoparticle coalescence pathway for tuning the thickness of laterally-uniform colloidal nanosheets: the case of SnSe. <i>ACS Nano</i> , 2011 , 5, 8852-60	16.7	181
141	Tunable intraparticle frameworks for creating complex heterostructured nanoparticle libraries. <i>Science</i> , 2018 , 360, 513-517	33.3	174
140	Emerging strategies for the total synthesis of inorganic nanostructures. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 6154-78	16.4	170
139	Synthesis of atomically ordered AuCu and AuCu ₃ nanocrystals from bimetallic nanoparticle precursors. <i>Journal of the American Chemical Society</i> , 2004 , 126, 6667-72	16.4	166
138	Self-assembly of Tiled Perovskite Monolayer and Multilayer Thin Films. <i>Chemistry of Materials</i> , 2000 , 12, 2513-2516	9.6	166
137	The solvent matters: kinetic versus thermodynamic shape control in the polyol synthesis of rhodium nanoparticles. <i>ACS Nano</i> , 2011 , 5, 8089-99	16.7	161
136	Metallurgy in a beaker: nanoparticle toolkit for the rapid low-temperature solution synthesis of functional multimetallic solid-state materials. <i>Journal of the American Chemical Society</i> , 2005 , 127, 3506-15	16.4	148
135	AuCu Alloy Nanoparticles with Tunable Compositions and Plasmonic Properties: Experimental Determination of Composition and Correlation with Theory. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 19263-19269	3.8	145
134	Synthesis, properties and applications of colloidal germanium and germanium-based nanomaterials. <i>Chemical Society Reviews</i> , 2013 , 42, 2861-79	58.5	141
133	Shape-controlled conversion of beta-Sn nanocrystals into intermetallic M-Sn (M=Fe, Co, Ni, Pd) nanocrystals. <i>Journal of the American Chemical Society</i> , 2007 , 129, 7339-45	16.4	136
132	Synthesis of CuPt nanorod catalysts with tunable lengths. <i>Journal of the American Chemical Society</i> , 2009 , 131, 5720-1	16.4	132
131	Converting nanocrystalline metals into alloys and intermetallic compounds for applications in catalysis. <i>Journal of Materials Chemistry</i> , 2008 , 18, 275-282		125
130	Low-Temperature Solution Synthesis of Nanocrystalline Binary Intermetallic Compounds Using the Polyol Process. <i>Chemistry of Materials</i> , 2005 , 17, 6835-6841	9.6	122

129	Spontaneous Hierarchical Assembly of Rhodium Nanoparticles into Spherical Aggregates and Superlattices. <i>Chemistry of Materials</i> , 2005 , 17, 514-520	9.6	115
128	Synthesis and crystallographic analysis of shape-controlled SnS nanocrystal photocatalysts: evidence for a pseudotetragonal structural modification. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11634-44	16.4	112
127	Direct Solution Synthesis of Intermetallic AuCu and AuCu ₃ Nanocrystals and Nanowire Networks. <i>Chemistry of Materials</i> , 2005 , 17, 758-766	9.6	111
126	Crystalline Cobalt Oxide Films for Sustained Electrocatalytic Oxygen Evolution under Strongly Acidic Conditions. <i>Chemistry of Materials</i> , 2017 , 29, 950-957	9.6	109
125	Topochemical Deintercalation of Al from MoAlB: Stepwise Etching Pathway, Layered Intergrowth Structures, and Two-Dimensional MBene. <i>Journal of the American Chemical Society</i> , 2018 , 140, 8833-8840	16.4	104
124	Highly branched cobalt phosphide nanostructures for hydrogen-evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 5420-5425	13	98
123	Rational construction of a scalable heterostructured nanorod megalibrary. <i>Science</i> , 2020 , 367, 418-424	33.3	96
122	Low-temperature solution synthesis of the non-equilibrium ordered intermetallic compounds Au ₃ Fe, Au ₃ Co, and Au ₃ Ni as nanocrystals. <i>Journal of the American Chemical Society</i> , 2008 , 130, 11866-7	16.4	94
121	Exfoliation of layered rutile and perovskite tungstates. <i>Chemical Communications</i> , 2002 , 706-7	5.8	94
120	Nanocrystal conversion chemistry: A unified and materials-general strategy for the template-based synthesis of nanocrystalline solids. <i>Journal of Solid State Chemistry</i> , 2008 , 181, 1509-1523	3.3	93
119	Low-temperature polyol synthesis of AuCuSn ₂ and AuNiSn ₂ : using solution chemistry to access ternary intermetallic compounds as nanocrystals. <i>Journal of the American Chemical Society</i> , 2005 , 127, 7326-7	16.4	93
118	Preserving Both Anion and Cation Sublattice Features during a Nanocrystal Cation-Exchange Reaction: Synthesis of Metastable Wurtzite-Type CoS and MnS. <i>Journal of the American Chemical Society</i> , 2016 , 138, 471-4	16.4	92
117	Supported palladium nanoparticles: an efficient catalyst for the direct formation of H ₂ O ₂ from H ₂ and O ₂ . <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 6221-4	16.4	89
116	Formation and Interlayer Decoupling of Colloidal MoSe ₂ Nanoflowers. <i>Chemistry of Materials</i> , 2015 , 27, 3167-3175	9.6	86
115	Synthesis of Colloidal Au ₂ Cu ₂ S Heterodimers via Chemically Triggered Phase Segregation of AuCu Nanoparticles. <i>Chemistry of Materials</i> , 2012 , 24, 1552-1554	9.6	84
114	Bridging hcp-Ni and Ni ₃ C via a Ni ₃ C _{1-x} Solid Solution: Tunable Composition and Magnetism in Colloidal Nickel Carbide Nanoparticles. <i>Chemistry of Materials</i> , 2011 , 23, 2475-2480	9.6	82
113	Solution Synthesis of Nanocrystalline M ₂ N (M = Pd, Au, Cu) Intermetallic Compounds via Chemical Conversion of Metal Nanoparticle Precursors. <i>Chemistry of Materials</i> , 2007 , 19, 4098-4104	9.6	82
112	Stability and Activity of Non-Noble-Metal-Based Catalysts Toward the Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 9767-9771	16.4	81

111	Chemical Synthesis of Two-Dimensional Iron Chalcogenide Nanosheets: FeSe, FeTe, Fe(Se,Te), and FeTe ₂ . <i>Chemistry of Materials</i> , 2009 , 21, 3655-3661	9.6	81
110	ZnO-templated synthesis of wurtzite-type ZnS and ZnSe nanoparticles. <i>Journal of the American Chemical Society</i> , 2009 , 131, 424-5	16.4	80
109	Topochemical Synthesis of Three-Dimensional Perovskites from Lamellar Precursors. <i>Journal of the American Chemical Society</i> , 2000 , 122, 2798-2803	16.4	80
108	Uniform hollow carbon shells: nanostructured graphitic supports for improved oxygen-reduction catalysis. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 7045-8	16.4	77
107	Direct synthesis of H ₂ O ₂ from H ₂ and O ₂ over PdPt/SiO ₂ bimetallic catalysts in a H ₂ SO ₄ /ethanol system. <i>Applied Catalysis A: General</i> , 2008 , 339, 130-136	5.1	76
106	Colloidal Synthesis and Electrical Properties of GeSe Nanobelts. <i>Chemistry of Materials</i> , 2012 , 24, 3643-3649	16.4	68
105	Phase-selective chemical extraction of selenium and sulfur from nanoscale metal chalcogenides: a general strategy for synthesis, purification, and phase targeting. <i>Journal of the American Chemical Society</i> , 2011 , 133, 1294-7	16.4	68
104	Aqueous room-temperature synthesis of AuRh, AuPt, PtRh, and PdRh alloy nanoparticles: fully tunable compositions within the miscibility gaps. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11599	16.4	65
103	Colloidal Synthesis of Air-Stable Crystalline Germanium Nanoparticles with Tunable Sizes and Shapes. <i>Chemistry of Materials</i> , 2010 , 22, 6103-6108	9.6	65
102	Room-temperature chemical synthesis of shape-controlled indium nanoparticles. <i>Journal of the American Chemical Society</i> , 2008 , 130, 8140-1	16.4	65
101	Partial Etching of Al from MoAlB Single Crystals To Expose Catalytically Active Basal Planes for the Hydrogen Evolution Reaction. <i>Chemistry of Materials</i> , 2017 , 29, 8953-8957	9.6	63
100	Low-Temperature Solution Synthesis of Few-Layer 1T QMoTe ₂ Nanostructures Exhibiting Lattice Compression. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 2830-4	16.4	63
99	Solution Synthesis of Thiospinel CuCo ₂ S ₄ Nanoparticles. <i>Inorganic Chemistry</i> , 2016 , 55, 221-6	5.1	61
98	Solution Synthesis of Cu ₃ PdN Nanocrystals as Ternary Metal Nitride Electrocatalysts for the Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2014 , 26, 6226-6232	9.6	60
97	Comparison of the Performance of CoP-Coated and Pt-Coated Radial Junction n(+)p-Silicon Microwire-Array Photocathodes for the Sunlight-Driven Reduction of Water to H ₂ (g). <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1679-83	6.4	56
96	Colloidal synthesis of non-equilibrium wurtzite-type MnSe. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 4638-40	16.4	56
95	M13 Bacteriophage as a Biological Scaffold for Magnetically-Recoverable Metal Nanowire Catalysts: Combining Specific and Nonspecific Interactions To Design Multifunctional Nanocomposites. <i>Chemistry of Materials</i> , 2009 , 21, 2176-2178	9.6	55
94	Low-Temperature Solution Synthesis of Transition Metal Dichalcogenide Alloys with Tunable Optical Properties. <i>Journal of the American Chemical Society</i> , 2017 , 139, 11096-11105	16.4	54

93	Reacting the unreactive: a toolbox of low-temperature solution-mediated reactions for the facile interconversion of nanocrystalline intermetallic compounds. <i>Journal of the American Chemical Society</i> , 2006 , 128, 9588-9	16.4	54
92	The Active Phase in the Direct Synthesis of H ₂ O ₂ from H ₂ and O ₂ over Pd/SiO ₂ Catalyst in a H ₂ SO ₄ /Ethanol System. <i>Catalysis Letters</i> , 2009 , 132, 342-348	2.8	50
91	Engineering Porosity into Single-Crystal Colloidal Nanosheets Using Epitaxial Nucleation and Chalcogenide Anion Exchange Reactions: The Conversion of SnSe to SnTe. <i>Chemistry of Materials</i> , 2012 , 24, 3088-3093	9.6	47
90	Chemical synthesis of air-stable manganese nanoparticles. <i>Journal of the American Chemical Society</i> , 2009 , 131, 9144-5	16.4	47
89	Sequential Anion and Cation Exchange Reactions for Complete Material Transformations of Nanoparticles with Morphological Retention. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 8669-72	16.4	45
88	Optimized Synthesis and Magnetic Properties of Intermetallic Au ₃ Fe ₁ , Au ₃ Co ₁ , and Au ₃ Ni ₁ Nanoparticles. <i>Chemistry of Materials</i> , 2010 , 22, 3988-3994	9.6	45
87	KLnTiO ₄ (Ln=La, Nd, Sm, Eu, Gd, Dy): A New Series of Ruddlesden-Popper Phases Synthesized by Ion-Exchange of HLnTiO ₄ . <i>Journal of Solid State Chemistry</i> , 2001 , 161, 225-232	3.3	45
86	Colloidal Synthesis of Germanium Nanocrystals Using Room-Temperature Benchtop Chemistry. <i>Chemistry of Materials</i> , 2009 , 21, 4105-4107	9.6	44
85	Synthesis, Proton Exchange, and Topochemical Dehydration of New Ruddlesden-Popper Tantalates and Titanotantalates. <i>Journal of Solid State Chemistry</i> , 2000 , 155, 46-54	3.3	44
84	Multi-Step Topochemical Pathway to Metastable MoAlB and Related Two-Dimensional Nanosheet Heterostructures. <i>Journal of the American Chemical Society</i> , 2019 , 141, 10852-10861	16.4	43
83	Microscopic Investigation of Chemoselectivity in Ag-Pt-Fe ₃ O ₄ Heterotrimer Formation: Mechanistic Insights and Implications for Controlling High-Order Hybrid Nanoparticle Morphology. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15493-500	16.4	43
82	Synthesis of Hybrid Au-In ₂ O ₃ Nanoparticles Exhibiting Dual Plasmonic Resonance. <i>Chemistry of Materials</i> , 2014 , 26, 5900-5904	9.6	43
81	Colloidal crystal microarrays and two-dimensional superstructures: a versatile approach for patterned surface assembly. <i>Langmuir</i> , 2004 , 20, 7293-7	4	43
80	Interface-mediated noble metal deposition on transition metal dichalcogenide nanostructures. <i>Nature Chemistry</i> , 2020 , 12, 284-293	17.6	42
79	Purification and magnetic interrogation of hybrid Au-Fe ₃ O ₄ and FePt-Fe ₃ O ₄ nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 9875-9	16.4	42
78	Intermetallic NiTa Electrocatalyst for the Oxygen Evolution Reaction in Highly Acidic Electrolytes. <i>Inorganic Chemistry</i> , 2018 , 57, 6010-6015	5.1	41
77	Ligand-induced fate of embryonic species in the shape-controlled synthesis of rhodium nanoparticles. <i>ACS Nano</i> , 2015 , 9, 1707-20	16.7	41
76	Hybrid CuO-TiO ₂ /N _x Hollow Nanocubes for Photocatalytic Conversion of CO ₂ into Methane under Solar Irradiation. <i>Angewandte Chemie</i> , 2012 , 124, 3981-3984	3.6	41

75	Structure-Selective Cation Exchange in the Synthesis of Zincblende MnS and CoS Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 6464-6467	16.4	37
74	A Library of Single-Crystal Metal-In Nanorods: Using Diffusion as a Tool for Controlling the Morphology of Intermetallic Nanocrystals. <i>Chemistry of Materials</i> , 2008 , 20, 2081-2085	9.6	37
73	Low-Temperature Nanoparticle-Directed Solid-State Synthesis of Ternary and Quaternary Transition Metal Oxides. <i>Chemistry of Materials</i> , 2006 , 18, 567-571	9.6	37
72	Ternary hybrid nanoparticle isomers: directing the nucleation of Ag on Pt-Fe(3)O(4) using a solid-state protecting group. <i>ACS Nano</i> , 2014 , 8, 1047-55	16.7	35
71	Insights into the Thermal Decomposition of Co(II) Oleate for the Shape-Controlled Synthesis of Wurtzite-Type CoO Nanocrystals. <i>Chemistry of Materials</i> , 2014 , 26, 1492-1499	9.6	35
70	Colloidally-synthesized cobalt molybdenum nanoparticles as active and stable electrocatalysts for the hydrogen evolution reaction under alkaline conditions. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3077-3081	13	34
69	Solution synthesis of metal silicide nanoparticles. <i>Inorganic Chemistry</i> , 2015 , 54, 707-9	5.1	34
68	Synthesis of tetragonal mackinawite-type FeS nanosheets by solvothermal crystallization. <i>Journal of Solid State Chemistry</i> , 2012 , 196, 17-20	3.3	34
67	Multistep solution-mediated formation of AuCuSn ₂ : mechanistic insights for the guided design of intermetallic solid-state materials and complex multimetal nanocrystals. <i>Journal of the American Chemical Society</i> , 2006 , 128, 11475-82	16.4	34
66	Structure-Selective Synthesis of Wurtzite and Zincblende ZnS, CdS, and CuInS Using Nanoparticle Cation Exchange Reactions. <i>Inorganic Chemistry</i> , 2019 , 58, 672-678	5.1	31
65	Chemical Transformation of Pt ₃ Fe ₃ O ₄ Colloidal Hybrid Nanoparticles into PtPb ₃ Fe ₃ O ₄ and Pt ₃ Sn ₃ Fe ₃ O ₄ Heterodimers and (PtPb ₃ Fe ₃ O ₄) _n Nanoflowers. <i>Chemistry of Materials</i> , 2013 , 25, 1886-1892	9.6	30
64	Simultaneous Multication Exchange Pathway to High-Entropy Metal Sulfide Nanoparticles. <i>Journal of the American Chemical Society</i> , 2021 , 143, 1017-1023	16.4	30
63	Full disclosure: the practical side of nanoscale total synthesis. <i>ACS Nano</i> , 2012 , 6, 8492-7	16.7	29
62	Exploiting Crystallographic Regioselectivity To Engineer Asymmetric Three-Component Colloidal Nanoparticle Isomers Using Partial Cation Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2018 , 140, 6771-6775	16.4	29
61	Bulk iron pyrite as a catalyst for the selective hydrogenation of nitroarenes. <i>Chemical Communications</i> , 2017 , 53, 4807-4810	5.8	28
60	Insights into the Seeded-Growth Synthesis of Colloidal Hybrid Nanoparticles. <i>Chemistry of Materials</i> , 2017 , 29, 106-119	9.6	28
59	Controlling Configurational Isomerism in Three-Component Colloidal Hybrid Nanoparticles. <i>Accounts of Chemical Research</i> , 2017 , 50, 1433-1440	24.3	27
58	Au ₃ Fe and Ag ₃ Fe Heterodimers with Tunable Domain Sizes: A Supersaturation-Precipitation Route to Colloidal Hybrid Nanoparticles. <i>Chemistry of Materials</i> , 2013 , 25, 4304-4311	9.6	27

57	Liquid-Phase Synthesis of Uniform Cube-Shaped GeTe Microcrystals. <i>Chemistry of Materials</i> , 2010 , 22, 3236-3240	9.6	27
56	Oxidative Transformation of Intermetallic Nanoparticles: An Alternative Pathway to Metal/Oxide Nanocomposites, Textured Ceramics, and Nanocrystalline Multimetal Oxides. <i>Chemistry of Materials</i> , 2007 , 19, 4545-4550	9.6	27
55	Colloidal Hybrid Nanoparticle Insertion Reaction for Transforming Heterodimers into Heterotrimers. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12514-7	16.4	24
54	Orthogonal reactivity of metal and multimetal nanostructures for selective, stepwise, and spatially-controlled solid-state modification. <i>ACS Nano</i> , 2009 , 3, 940-8	16.7	22
53	Synthesis of nanocrystalline REBO ₃ (RE=Y, Nd, Sm, Eu, Gd, Ho) and YBO ₃ :Eu using a borohydride-based solution precursor route. <i>Journal of Solid State Chemistry</i> , 2008 , 181, 3264-3268	3.3	22
52	PtAu Nanoparticle Heterodimers as Seeds for PtAuMetal Sulfide Heterotrimers: Thermal Stability and Chemoselective Growth Characteristics. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 8952-8959	2.8	21
51	Solution chemistry synthesis, morphology studies, and optical properties of five distinct nanocrystalline AuZn intermetallic compounds. <i>Journal of Alloys and Compounds</i> , 2010 , 490, 98-102	5.7	18
50	Uniform Hollow Carbon Shells: Nanostructured Graphitic Supports for Improved Oxygen-Reduction Catalysis. <i>Angewandte Chemie</i> , 2010 , 122, 7199-7202	3.6	18
49	Phosphine-Induced Phase Transition in Copper Sulfide Nanoparticles Prior to Initiation of a Cation Exchange Reaction. <i>Journal of the American Chemical Society</i> , 2020 , 142, 13345-13349	16.4	18
48	X-ray-Based Techniques to Study the Nano-Bio Interface. <i>ACS Nano</i> , 2021 , 15, 3754-3807	16.7	18
47	Converting a layer perovskite into a non-defective higher-order homologue: topochemical synthesis of Eu ₂ CaTi ₂ O ₇ . <i>Chemical Communications</i> , 2001 , 853-854	5.8	17
46	Semi-preparative asymmetrical flow field-flow fractionation: A closer look at channel dimensions and separation performance. <i>Journal of Chromatography A</i> , 2017 , 1499, 149-157	4.5	16
45	Sequential Anion and Cation Exchange Reactions for Complete Material Transformations of Nanoparticles with Morphological Retention. <i>Angewandte Chemie</i> , 2015 , 127, 8793-8796	3.6	16
44	On-wire conversion chemistry: engineering solid-state complexity into striped metal nanowires using solution chemistry reactions. <i>Journal of the American Chemical Society</i> , 2008 , 130, 14042-3	16.4	16
43	Solution synthesis of few-layer WTe ₂ and Mo _x W _{1-x} Te ₂ nanostructures. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 11317-11323	7.1	15
42	Low-Temperature Solution Synthesis of Few-Layer 1T'-MoTe ₂ Nanostructures Exhibiting Lattice Compression. <i>Angewandte Chemie</i> , 2016 , 128, 2880-2884	3.6	15
41	Pawley and Rietveld refinements using electron diffraction from L1 ₂ -type intermetallic AuBe ₂ nanocrystals during their in-situ order-disorder transition. <i>Ultramicroscopy</i> , 2011 , 111, 1295-304	3.1	15
40	Made-to-Order Heterostructured Nanoparticle Libraries. <i>Accounts of Chemical Research</i> , 2020 , 53, 2558-2568	2.6	15

39	Reactive AgAuS and Ag ₃ AuS ₂ Synthons Enable the Sequential Transformation of Spherical Nanocrystals into Asymmetric Multicomponent Hybrid Nanoparticles. <i>Chemistry of Materials</i> , 2017 , 29, 4153-4160	9.6	14
38	Solution-Mediated Growth of Two-Dimensional Nanosheet Heterostructures. <i>Chemistry of Materials</i> , 2017 , 29, 817-822	9.6	14
37	Seeded Growth of Metal Nitrides on Noble-Metal Nanoparticles To Form Complex Nanoscale Heterostructures. <i>Chemistry of Materials</i> , 2019 , 31, 4605-4613	9.6	14
36	Experimental Insights into Partial Cation Exchange Reactions for Synthesizing Heterostructured Metal Sulfide Nanocrystals. <i>Chemistry of Materials</i> , 2020 , 32, 5461-5482	9.6	14
35	Defect-mediated selective hydrogenation of nitroarenes on nanostructured WS. <i>Chemical Science</i> , 2019 , 10, 10310-10317	9.4	14
34	Size- and Interface-Modulated Metal-Insulator Transition in Solution-Synthesized Nanoscale VO ₂ -TiO ₂ Heterostructures. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 15550-15554	16.4	13
33	Magnetic separation of colloidal nanoparticle mixtures using a material specific peptide. <i>Chemical Communications</i> , 2013 , 49, 5471-3	5.8	13
32	Low-Temperature Solution-Mediated Synthesis of Polycrystalline Intermetallic Compounds from Bulk Metal Powders. <i>Chemistry of Materials</i> , 2008 , 20, 3212-3217	9.6	13
31	Solution-Phase Synthesis and Magnetic Properties of Single-Crystal Iron Germanide Nanostructures. <i>Chemistry of Materials</i> , 2013 , 25, 4396-4401	9.6	11
30	Synthetic Deconvolution of Interfaces and Materials Components in Hybrid Nanoparticles. <i>Chemistry of Materials</i> , 2017 , 29, 6168-6177	9.6	11
29	Neue Strategien zur Totalsynthese von anorganischen Nanostrukturen. <i>Angewandte Chemie</i> , 2013 , 125, 6270-6297	3.6	11
28	Phase-Selective Solution Synthesis of Perovskite-Related Cesium Cadmium Chloride Nanoparticles. <i>Inorganic Chemistry</i> , 2020 , 59, 11688-11694	5.1	9
27	Colloidal Nanostructures of Transition-Metal Dichalcogenides. <i>Accounts of Chemical Research</i> , 2021 , 54, 1517-1527	24.3	9
26	Metal Ruthenate Perovskites as Heterogeneous Catalysts for the Hydrolysis of Ammonia Borane. <i>ACS Omega</i> , 2018 , 3, 3501-3506	3.9	8
25	Self-Assembled Colloidal Crystals: Visualizing Atomic Crystal Chemistry Using Microscopic Analogues of Inorganic Solids. <i>Journal of Chemical Education</i> , 2005 , 82, 450	2.4	8
24	Emergence and Control of Stacking Fault Formation during Nanoparticle Cation Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2021 , 143, 1779-1783	16.4	8
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