Sarbajit Banerjee

List of Publications by Year
in descending order

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239 papers	10,190 citations	26610 56 h-index	43868 91 g-index
245 all docs	245 docs citations	245 times ranked	12780 citing authors

#	Article	IF	Citations
1	Photopolymerized superhydrophobic hybrid coating enabled by dual-purpose tetrapodal ZnO for liquid/liquid separation. Materials Horizons, 2022, 9, 452-461.	6.4	12
2	Probing Relaxation Dynamics and Stepped Domain Switching in Boronâ€Alloyed VO₂. Advanced Electronic Materials, 2022, 8, 2100932.	2.6	5
3	Effect of crystallite geometries on electrochemical performance of porous intercalation electrodes by multiscale operando investigation. Nature Materials, 2022, 21, 217-227.	13.3	35
4	Topochemical stabilization and single-crystal transformations of a metastable 2D Î³Ê¹-V2O5 intercalation cathode. Cell Reports Physical Science, 2022, 3, 100712.	2.8	5
5	Cation reordering instead of phase transitions: Origins and implications of contrasting lithiation mechanisms in 1D Î¶- and 2D Î±-V ₂ O ₅. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	11
6	Lone but Not Alone: Precise Positioning of Lone Pairs for the Design of Photocatalytic Architectures. Chemistry of Materials, 2022, 34, 1439-1458.	3.2	12
7	A Materials Science Perspective of Midstream Challenges in the Utilization of Heavy Crude Oil. ACS Omega, 2022, 7, 1547-1574.	1.6	14
8	Near-Ambient Nanocomposite Thermochromic Fenestration Elements from Post-Encapsulation-Annealed Tungsten-Alloyed Vanadium(IV) Oxide Nanocrystals. ACS Applied Energy Materials, 2022, 5, 4829-4839.	2.5	4
9	Multiscale Textured Mesh Substrates that Glide Alcohol Droplets and Impede Ice Nucleation. Advanced Engineering Materials, 2022, 24, .	1.6	1
10	Chemical transformations of extraterrestrial soils. Trends in Chemistry, 2022, 4, 260-263.	4.4	3
11	Inverse emulsion-crosslinked cyclodextrin polymer nanoparticles for selective adsorption and chemiresistive sensing of BTEX. Materials Today Chemistry, 2022, 24, 100915.	1.7	1
12	Grid nanoindentation on calcium sulfoaluminate (CSA)-Kaolinite pastes. Construction and Building Materials, 2022, 335, 127523.	3.2	0
13	Decoupling the metalâ€“insulator transition temperature and hysteresis of VO₂ using Ge alloying and oxygen vacancies. Chemical Communications, 2022, 58, 6586-6589.	2.2	6
14	A deep learned nanowire segmentation model using synthetic data augmentation. Npj Computational Materials, 2022, 8, .	3.5	11
15	A â€œLi-Eyeâ€•View of Diffusion Pathways in a 2D Intercalation Material from Topochemical Single-Crystal Transformation. ACS Energy Letters, 2022, 7, 1960-1962.	8.8	4
16	Thermodynamics of Wettability: A Physical Chemistry Laboratory Experiment. Journal of Chemical Education, 2022, 99, 2689-2696.	1.1	2
17	Building Back Better: Lessons Learned from Sichuan Earthquake on Decarbonizing Chinaâ€™s Construction Industry through Microalloying. Matter, 2021, 4, 4-9.	5.0	2
18	Design, synthesis and characterization of fused bithiazole- and dithiophene-based low bandgap thienylenevinylene copolymers. Polymer Chemistry, 2021, 12, 5942-5951.	1.9	6

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19	Solution-processable porous graphitic carbon from bottom-up synthesis and low-temperature graphitization. Chemical Science, 2021, 12, 8438-8444.	3.7	19
20	Punching above its weight: life cycle energy accounting and environmental assessment of vanadium microalloying in reinforcement bar steel. Environmental Sciences: Processes and Impacts, 2021, 23, 275-290.	1.7	7
21	Alkoxy functionalized benzothiadiazole based donorâ€“acceptor conjugated copolymers for organic field-effect transistors. Journal of Materials Chemistry C, 2021, 9, 5113-5123.	2.7	22
22	Electronic structure modulation of MoS2 by substitutional Se incorporation and interfacial MoO3 hybridization: Implications of Fermi engineering for electrocatalytic hydrogen evolution and oxygen evolution. Chemical Physics Reviews, 2021, 2, .	2.6	8
23	Asphaltene Microencapsulation of Bitumen as a Means of Solid-Phase Transport. Energy & Fuels, 2021, 35, 6576-6584.	2.5	3
24	Halide Replacement with Complete Preservation of Crystal Lattice in Mixedâ€Anion Lanthanide Oxyhalides. Angewandte Chemie, 2021, 133, 15710-15717.	1.6	1
25	Halide Replacement with Complete Preservation of Crystal Lattice in Mixedâ€Anion Lanthanide Oxyhalides. Angewandte Chemie - International Edition, 2021, 60, 15582-15589.	7.2	11
26	Negative Thermal Expansion HfV₂O₇ Nanostructures for Alleviation of Thermal Stress in Nanocomposite Coatings. ACS Applied Materials & Interfaces, 2021, 13, 44723-44732.	4.0	7
27	Lessons learned from FeSb2O4 on stereoactive lone pairs as a design principle for anion insertion. Cell Reports Physical Science, 2021, 2, 100592.	2.8	3
28	Powder bed coating of bitumen with asphaltenes to obtain solid prills for midstream transportation. Fuel, 2021, 302, 121093.	3.4	4
29	A chemo-mechanical damage model at large deformation: numerical and experimental studies on polycrystalline energy materials. International Journal of Solids and Structures, 2021, 228, 111099.	1.3	20
30	Elucidating the Role of Dissolved Organic Matter and Sunlight in Mediating the Formation of Agâ€“Au Bimetallic Alloy Nanoparticles in the Aquatic Environment. Environmental Science & Technology, 2021, 55, 1710-1720.	4.6	11
31	Assessing the role of vanadium technologies in decarbonizing hard-to-abate sectors and enabling the energy transition. IScience, 2021, 24, 103277.	1.9	12
32	Structure-Dependent Accessibility of Phonon-Coupled Radiative Relaxation Pathways Probed by X-ray-Excited Optical Luminescence. Journal of Physical Chemistry Letters, 2021, 12, 11170-11175.	2.1	0
33	Mapping mechanisms and growth regimes of magnesium electrodeposition at high current densities. Materials Horizons, 2020, 7, 843-854.	6.4	77
34	Curvature-Induced Modification of Mechano-Electrochemical Coupling and Nucleation Kinetics in a Cathode Material. Matter, 2020, 3, 1754-1773.	5.0	18
35	Does Water Enhance Mg Intercalation in Oxides? The Case of a Tunnel Framework. ACS Energy Letters, 2020, 5, 3357-3361.	8.8	13
36	An Atomic View of Cation Diffusion Pathways from Singleâ€Crystal Topochemical Transformations. Angewandte Chemie, 2020, 132, 16527-16534.	1.6	3

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37	Toward High-Precision Control of Transformation Characteristics in VO₂ through Dopant Modulation of Hysteresis. Journal of Physical Chemistry C, 2020, 124, 21223-21231.	1.5	16
38	Frontiers in hybrid and interfacial materials chemistry research. MRS Bulletin, 2020, 45, 951-964.	1.7	6
39	Lattice Anharmonicity of Stereochemically Active Lone Pairs Controls Thermochromic Band Gap Reduction of PbVO₃Cl. Chemistry of Materials, 2020, 32, 7404-7412.	3.2	15
40	Navigating the design space of inorganic materials synthesis using statistical methods and machine learning. Dalton Transactions, 2020, 49, 11480-11488.	1.6	24
41	Atomic Hourglass and Thermometer Based on Diffusion of a Mobile Dopant in VO₂. Journal of the American Chemical Society, 2020, 142, 15513-15526.	6.6	23
42	Elucidating the Mechanistic Origins of Photocatalytic Hydrogen Evolution Mediated by MoS₂/CdS Quantum-Dot Heterostructures. ACS Applied Materials & Interfaces, 2020, 12, 43728-43740.	4.0	42
43	Cyclodextrin-derived polymer networks for selective molecular adsorption. Chemical Communications, 2020, 56, 11783-11786.	2.2	13
44	Three-Dimensional Inverse Opal TiO₂ Coatings to Enable the Gliding of Viscous Oils. Energy & Fuels, 2020, 34, 13606-13613.	2.5	5
45	Celebrating 5 Years of Open Access with ACS Omega. ACS Omega, 2020, 5, 16986-16986.	1.6	2
46	Bending good beats breaking bad: phase separation patterns in individual cathode particles upon lithiation and delithiation. Materials Horizons, 2020, 7, 3275-3290.	6.4	14
47	Enhanced charge storage of nanometric Î¶-V₂O₅ in Mg electrolytes. Nanoscale, 2020, 12, 22150-22160.	2.8	15
48	An Atomic View of Cation Diffusion Pathways from Singleâ€Crystal Topochemical Transformations. Angewandte Chemie - International Edition, 2020, 59, 16385-16392.	7.2	20
49	Designing catalysts for water splitting based on electronic structure considerations. Electronic Structure, 2020, 2, 023001.	1.0	43
50	Reversible Room-Temperature Fluoride-Ion Insertion in a Tunnel-Structured Transition Metal Oxide Host. ACS Energy Letters, 2020, 5, 2520-2526.	8.8	13
51	Electrical vapour sensing with macrocyclic molecular receptors. Supramolecular Chemistry, 2020, 32, 165-177.	1.5	7
52	Metal-Insulator Transitions in Î²â€²-Cu V2O5 Mediated by Polaron Oscillation and Cation Shuttling. Matter, 2020, 2, 1166-1186.	5.0	9
53	In situ Resource Utilization and Reconfiguration of Soils Into Construction Materials for the Additive Manufacturing of Buildings. Frontiers in Materials, 2020, 7, .	1.2	26
54	Hierarchically Textured Oleophobic Internal Coatings that Facilitate Drag Reduction of Viscous Oils in Macroscopic Laminar Flow. Advanced Engineering Materials, 2020, 22, 2000333.	1.6	6

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55	Optical modulation in hybrid antiresonant hollow-core fiber infiltrated with vanadium dioxide phase change nanocrystals. Optics Letters, 2020, 45, 4240.	1.7	5
56	Chemically inert covalently networked triazole-based solid polymer electrolytes for stable all-solid-state lithium batteries. Journal of Materials Chemistry A, 2019, 7, 19691-19695.	5.2	17
57	Chemo-mechanical degradation in V₂O₅ thin film cathodes of Li-ion batteries during electrochemical cycling. Journal of Materials Chemistry A, 2019, 7, 23922-23930.	5.2	24
58	Energy Spotlight. ACS Energy Letters, 2019, 4, 2763-2769.	8.8	1
59	Building Brain-Inspired Logic Circuits from Dynamically Switchable Transition-Metal Oxides. Trends in Chemistry, 2019, 1, 711-726.	4.4	39
60	Functionalized Tetrapodal ZnO Membranes Exhibiting Superoleophobic and Superhydrophilic Character for Water/Oil Separation Based on Differential Wettability. Energy & Fuels, 2019, 33, 5024-5034.	2.5	21
61	Tortuosity but Not Percolation: Design of Exfoliated Graphite Nanocomposite Coatings for Extended Corrosion Protection of Aluminum Alloys. ACS Applied Nano Materials, 2019, 2, 3100-3116.	2.4	27
62	Machine Learning-Directed Navigation of Synthetic Design Space: A Statistical Learning Approach to Controlling the Synthesis of Perovskite Halide Nanoplatelets in the Quantum-Confined Regime. Chemistry of Materials, 2019, 31, 3281-3292.	3.2	40
63	Magnesium Nanocomposite Coatings for Protection of a Lightweight Al Alloy: Modes of Corrosion Protection, Mechanisms of Failure. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800817.	0.8	6
64	An evaluation of the reduction of heat loss enabled by halloysite modification of oilwell cement. Engineering Research Express, 2019, 1, 025028.	0.8	7
65	Type-II heterostructures of Î±-V2O5 nanowires interfaced with cadmium chalcogenide quantum dots: Programmable energetic offsets, ultrafast charge transfer, and photocatalytic hydrogen evolution. Journal of Chemical Physics, 2019, 151, 224702.	1.2	6
66	Epitaxial stabilization versus interdiffusion: synthetic routes to metastable cubic HfO₂ and HfV₂O₇ from the coreâ€“shell arrangement of precursors. Nanoscale, 2019, 11, 21354-21363.	2.8	5
67	Effectiveness of zinc oxide-assisted photocatalysis for concerned constituents in reclaimed wastewater: 1,4-Dioxane, trihalomethanes, antibiotics, antibiotic resistant bacteria (ARB), and antibiotic resistance genes (ARGs). Science of the Total Environment, 2019, 649, 1189-1197.	3.9	64
68	A full palette: Crystal chemistry, polymorphism, synthetic strategies, and functional applications of lanthanide oxyhalides. Journal of Solid State Chemistry, 2019, 270, 569-592.	1.4	23
69	Formation of Magnesium Dendrites during Electrodeposition. ACS Energy Letters, 2019, 4, 375-376.	8.8	221
70	The Middle Road Less Taken: Electronic-Structure-Inspired Design of Hybrid Photocatalytic Platforms for Solar Fuel Generation. Accounts of Chemical Research, 2019, 52, 645-655.	7.6	29
71	In-situ measurements of stress evolution in composite sulfur cathodes. Energy Storage Materials, 2019, 16, 491-497.	9.5	26
72	Separation of Viscous Oil Emulsions Using Three-Dimensional Nanotetrapodal ZnO Membranes. Energy & Fuels, 2018, 32, 4894-4902.	2.5	12

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73	Striping modulations and strain gradients within individual particles of a cathode material upon lithiation. Materials Horizons, 2018, 5, 486-498.	6.4	17
74	Mapping Catalytically Relevant Edge Electronic States of MoS₂. ACS Central Science, 2018, 4, 493-503.	5.3	39
75	Stabilization of a Metastable Tunnelâ€Structured Orthorhombic Phase of VO₂ upon Iridium Doping. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700884.	0.8	7
76	Reversible Mg-Ion Insertion in a Metastable One-Dimensional Polymorph of V2O5. CheM, 2018, 4, 564-585.	5.8	126
77	Strain and Bond Length Dynamics upon Growth and Transfer of Graphene by NEXAFS Spectroscopy from First-Principles and Experiment. Langmuir, 2018, 34, 1783-1794.	1.6	11
78	Defining Diffusion Pathways in Intercalation Cathode Materials: Some Lessons from V₂O₅ on Directing Cation Traffic. ACS Energy Letters, 2018, 3, 915-931.	8.8	79
79	Modulating the Hysteresis of an Electronic Transition: Launching Alternative Transformation Pathways in the Metalâ€“Insulator Transition of Vanadium(IV) Oxide. Chemistry of Materials, 2018, 30, 214-224.	3.2	20
80	Incorporation of Hydroxyethylcellulose-Functionalized Halloysite as a Means of Decreasing the Thermal Conductivity of Oilwell Cement. Scientific Reports, 2018, 8, 16149.	1.6	17
81	Itâ€™s Not Over until the Big Ion Dances: Potassium Gets Its Groove On. Joule, 2018, 2, 2194-2197.	11.7	12
82	Elucidating the Crystallite Size Dependence of the Thermochromic Properties of Nanocomposite VO₂ Thin Films. ACS Omega, 2018, 3, 14280-14293.	1.6	14
83	Hole Extraction by Design in Photocatalytic Architectures Interfacing CdSe Quantum Dots with Topochemically Stabilized Tin Vanadium Oxide. Journal of the American Chemical Society, 2018, 140, 17163-17174.	6.6	33
84	Photodegradation of fluorotelomer carboxylic 5:3 acid and perfluorooctanoic acid using zinc oxide. Environmental Pollution, 2018, 243, 637-644.	3.7	20
85	Stabilization of a Metastable Tunnel-Structured Orthorhombic Phase of VO2 upon Iridium Doping (Phys. Status Solidi A 16â•2018). Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1870039.	0.8	0
86	Ligand-Mediated Control of Dopant Oxidation State and X-ray Excited Optical Luminescence in Eu-Doped LaOCl. Inorganic Chemistry, 2018, 57, 5842-5849.	1.9	15
87	Ligand-Directed Stabilization of Ternary Phases: Synthetic Control of Structural Dimensionality in Solution-Grown Cesium Lead Bromide Nanocrystals. Chemistry of Materials, 2018, 30, 6144-6155.	3.2	39
88	In a Different Light: Deciphering Optical and X-ray Sensitization Mechanisms in an Expanded Palette of LaOCl Phosphors. Journal of Physical Chemistry C, 2018, 122, 16412-16423.	1.5	11
89	Traversing Energy Landscapes Away from Equilibrium: Strategies for Accessing and Utilizing Metastable Phase Space. Journal of Physical Chemistry C, 2018, 122, 25709-25728.	1.5	75
90	Roadblocks in Cation Diffusion Pathways: Implications of Phase Boundaries for Li-Ion Diffusivity in an Intercalation Cathode Material. ACS Applied Materials & Interfaces, 2018, 10, 30901-30911.	4.0	19

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91	Stabilization of Agâ€“Au Bimetallic Nanocrystals in Aquatic Environments Mediated by Dissolved Organic Matter: A Mechanistic Perspective. Environmental Science & Technology, 2018, 52, 7269-7278.	4.6	19
92	Nucleation-controlled hysteresis in unstrained hydrothermal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">V</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> particles. Physical Review Materials, 2018, 2, .	0.9	10
93	Orthogonal Wettability of Hierarchically Textured Metal Meshes as a Means of Separating Water/Oil Emulsions. Advanced Engineering Materials, 2017, 19, 1600808.	1.6	27
94	Mapping the electrocatalytic activity of MoS₂ across its amorphous to crystalline transition. Journal of Materials Chemistry A, 2017, 5, 5129-5141.	5.2	41
95	Fabrication and Electrochemical Performance of Structured Mesoscale Open Shell V₂O₅ Networks. Langmuir, 2017, 33, 5975-5981.	1.6	11
96	Real-time atomistic observation of structural phase transformations in individual hafnia nanorods. Nature Communications, 2017, 8, 15316.	5.8	59
97	Postsynthetic Route for Modifying the Metalâ€”Insulator Transition of VO₂ by Interstitial Dopant Incorporation. Chemistry of Materials, 2017, 29, 5401-5412.	3.2	36
98	Intercalation-Induced Exfoliation and Thickness-Modulated Electronic Structure of a Layered Ternary Vanadium Oxide. Chemistry of Materials, 2017, 29, 3285-3294.	3.2	19
99	Direct evidence of M2 phase during the monoclinic-tetragonal (rutile) phase transition of W-doped VO2 nanowires. Applied Physics Letters, 2017, 110, .	1.5	11
100	Looking Outwards from the â€œCentral Scienceâ€• An Interdisciplinary Perspective on Graduate Education in Materials Chemistry. ACS Symposium Series, 2017, , 65-89.	0.5	3
101	Hybrid Nanocomposite Films Comprising Dispersed VO₂ Nanocrystals: A Scalable Aqueous-Phase Route to Thermochromic Fenestration. ACS Applied Materials & Interfaces, 2017, 9, 38887-38900.	4.0	30
102	The electronic structure of Îµâ€²-V2O5: an expanded band gap in a double-layered polymorph with increased interlayer separation. Journal of Materials Chemistry A, 2017, 5, 23694-23703.	5.2	10
103	Memristive response of a new class of hydrated vanadium oxide intercalation compounds. MRS Communications, 2017, 7, 634-641.	0.8	7
104	Biomimetic Plastronic Surfaces for Handling of Viscous Oil. Energy & Fuels, 2017, 31, 9337-9344.	2.5	16
105	Modeling of phase separation across interconnected electrode particles in lithium-ion batteries. RSC Advances, 2017, 7, 41254-41264.	1.7	24
106	Lithiation across interconnected V₂O₅ nanoparticle networks. Journal of Materials Chemistry A, 2017, 5, 20141-20152.	5.2	26
107	X-ray Spectroscopy and Imaging as Multiscale Probes of Intercalation Phenomena in Cathode Materials. Jom, 2017, 69, 1469-1477.	0.9	10
108	Influence of ligand shell ordering on dimensional confinement of cesium lead bromide (CsPbBr₃) perovskite nanoplatelets. Journal of Materials Chemistry C, 2017, 5, 8810-8818.	2.7	66

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109	Mitigating Cation Diffusion Limitations and Intercalation-Induced Framework Transitions in a 1D Tunnel-Structured Polymorph of V₂O₅. Chemistry of Materials, 2017, 29, 10386-10397.	3.2	24
110	Evaluation of Multivalent Cation Insertion in Single- and Double-Layered Polymorphs of V₂O₅. ACS Applied Materials & Interfaces, 2017, 9, 23756-23765.	4.0	64
111	Structureâ€Induced Switching of the Band Gap, Charge Order, and Correlation Strength in Ternary Vanadium Oxide Bronzes. Chemistry - A European Journal, 2017, 23, 9846-9856.	1.7	3
112	Monitoring Deformation in Graphene Through Hyperspectral Synchrotron Spectroscopy to Inform Fabrication. Journal of Physical Chemistry C, 2017, 121, 15653-15664.	1.5	3
113	Direct Observation of Hafnia Structural Phase Transformations. Microscopy and Microanalysis, 2017, 23, 2092-2093.	0.2	0
114	Building on Sub-Arctic Soil: Geopolymerization of Muskeg to a Densified Load-Bearing Composite. Scientific Reports, 2017, 7, 14711.	1.6	9
115	Aberration corrected STEM and High Resolution EELS study Investigating Magnesium Intercalation in Vanadium Pentoxide Cathode. Microscopy and Microanalysis, 2016, 22, 1318-1319.	0.2	0
116	In situ cooling and heating study of VO 2 phase transition. Microscopy and Microanalysis, 2016, 22, 816-817.	0.2	0
117	Atomic Resolution Studies of W Dopants Effect on the Phase Transformation of VO2. Microscopy and Microanalysis, 2016, 22, 884-885.	0.2	1
118	Programming Interfacial Energetic Offsets and Charge Transfer in Î²-Pb_{0.33}V₂O₅/Quantum-Dot Heterostructures: Tuning Valence-Band Edges to Overlap with Midgap States. Journal of Physical Chemistry C, 2016, 120, 28992-29001.	1.5	11
119	Stabilizing metastable tetragonal HfO₂ using a non-hydrolytic solution-phase route: ligand exchange as a means of controlling particle size. Chemical Science, 2016, 7, 4930-4939.	3.7	29
120	An in Situ Sulfidation Approach for the Integration of MoS₂ Nanosheets on Carbon Fiber Paper and the Modulation of Its Electrocatalytic Activity by Interfacing with nC₆₀. ACS Catalysis, 2016, 6, 6246-6254.	5.5	60
121	Mechanistic Evaluation of Li_xO_y Formation on Î´-MnO₂ in Nonaqueous Liâ€“Air Batteries. ACS Applied Materials & Interfaces, 2016, 8, 23028-23036.	4.0	46
122	Ligand-Mediated Modulation of Layer Thicknesses of Perovskite Methylammonium Lead Bromide Nanoplatelets. Chemistry of Materials, 2016, 28, 6909-6916.	3.2	89
123	Topochemically De-Intercalated Phases of V₂O₅ as Cathode Materials for Multivalent Intercalation Batteries: A First-Principles Evaluation. Chemistry of Materials, 2016, 28, 5611-5620.	3.2	84
124	Selective electrochemical reactivity of rutile<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>VO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml the suppression of metal-insulator transition. Physical Review B, 2016, 93, .	1.1	20
125	Graphene Coatings for the Corrosion Protection of Base Metals. , 2016, , 155-176.		1
126	Vanadium K-Edge X-ray Absorption Spectroscopy as a Probe of the Heterogeneous Lithiation of V₂O₅: First-Principles Modeling and Principal Component Analysis. Journal of Physical Chemistry C, 2016, 120, 23922-23932.	1.5	52

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127	Mapping polaronic states and lithiation gradients in individual V2O5 nanowires. Nature Communications, 2016, 7, 12022.	5.8	115
128	Contrasting 1D tunnel-structured and 2D layered polymorphs of V₂O₅: relating crystal structure and bonding to band gaps and electronic structure. Physical Chemistry Chemical Physics, 2016, 18, 15798-15806.	1.3	32
129	Directional Charge Transfer Mediated by Mid-Gap States: A Transient Absorption Spectroscopy Study of CdSe Quantum Dot/Î²-Pb_{0.33}V₂O₅ Heterostructures. Journal of Physical Chemistry C, 2016, 120, 5221-5232.	1.5	25
130	X-ray excited photoluminescence near the giant resonance in solid-solution Gd_{1â^'x}Tb_xOCl nanocrystals and their retention upon solvothermal topotactic transformation to Gd_{1â^'x}Tb_xF₃. Nanoscale, 2016, 8, 979-986.	2.8	15
131	Proliferation of metallic domains caused by inhomogeneous heating near the electrically driven transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>VO</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2015, 92, .	1.1	13
132	Separating electric field and thermal effects across the metal-insulator transition in vanadium oxide nanobeams. Applied Physics Letters, 2015, 107, .	1.5	19
133	Determination of Free Electron Density in Sequentially Doped In_xGa_{1-x}As by Raman Spectroscopy. Applied Spectroscopy, 2015, 69, 239-242.	1.2	3
134	Atomic Layer Deposition of Hafnium(IV) Oxide on Graphene Oxide: Probing Interfacial Chemistry and Nucleation by using Xâ€ray Absorption and Photoelectron Spectroscopies. ChemPhysChem, 2015, 16, 2842-2848.	1.0	7
135	Transformers: the changing phases of low-dimensional vanadium oxide bronzes. Chemical Communications, 2015, 51, 5181-5198.	2.2	75
136	Hybrid nanostructured coatings for corrosion protection of base metals: a sustainability perspective. Materials Research Express, 2015, 2, 032001.	0.8	62
137	Charge density waves in individual nanoribbons of orthorhombic-TaS₃. Physical Chemistry Chemical Physics, 2015, 17, 18374-18379.	1.3	6
138	Potential application of tip-enhanced Raman spectroscopy (TERS) in semiconductor manufacturing. , 2015, , .		2
139	Integrating Î²-Pb_{0.33}V₂O₅ Nanowires with CdSe Quantum Dots: Toward Nanoscale Heterostructures with Tunable Interfacial Energetic Offsets for Charge Transfer. Chemistry of Materials, 2015, 27, 2468-2479.	3.2	20
140	Two-Dimensional Graphene as a Matrix for MALDI Imaging Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2015, 26, 1963-1966.	1.2	24
141	Atomic Origins of Monoclinic-Tetragonal (Rutile) Phase Transition in Doped VO₂ Nanowires. Nano Letters, 2015, 15, 7179-7188.	4.5	52
142	Emptying and filling a tunnel bronze. Chemical Science, 2015, 6, 1712-1718.	3.7	42
143	Ligand-Mediated Control of Dislocation Dynamics and Resulting Particle Morphology of GdOCl Nanocrystals. Small, 2015, 11, 329-334.	5.2	20
144	Microwave-induced nucleation of conducting graphitic domains on silicon carbide surfaces. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 011215.	0.6	3

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145	Silica-shell encapsulation and adhesion of VO₂nanowires to glass substrates: integrating solution-derived VO₂nanowires within thermally responsive coatings. Materials Research Express, 2014, 1, 035014.	0.8	11
146	X-ray absorption spectroscopy studies of electronic structure recovery and nitrogen local structure upon thermal reduction of graphene oxide in an ammonia environment. RSC Advances, 2014, 4, 634-644.	1.7	60
147	Synthesis of novel single-walled carbon nanotubeâ€"magnesium nanoparticle composites by a solution reduction method. Materials Letters, 2014, 117, 305-308.	1.3	4
148	Raman spectroscopy studies of dopant activation and free electron density of In0.53Ga0.47As via sulfur monolayer doping. Physical Chemistry Chemical Physics, 2014, 16, 6539.	1.3	12
149	Ferroelastic Domain Organization and Precursor Control of Size in Solution-Grown Hafnium Dioxide Nanorods. ACS Nano, 2014, 8, 4678-4688.	7.3	29
150	Intermediate metallic phase in VO₂observed with scanning tunneling spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 14183-14188.	1.3	4
151	Graphene oxide and functionalized multi walled carbon nanotubes as epoxy curing agents: a novel synthetic approach to nanocomposites containing active nanostructured fillers. RSC Advances, 2014, 4, 49264-49272.	1.7	51
152	Electronic Phase Transitions of Î´-Ag_xV₂O₅ Nanowires: Interplay between Geometric and Electronic Structures. Journal of Physical Chemistry C, 2014, 118, 21235-21243.	1.5	17
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