Michelle J S Spencer

List of Publications by Year
in descending order

108 papers	3,206 citations	147801 31 h-index	175258 52 g-index
111 all docs	111 docs citations	111 times ranked	4401 citing authors

#	Article	IF	Citations
1	Zero valence iron nanocube decoration of graphitic nanoplatelets. Nanotechnology, 2022, 33, 025704.	2.6	0
2	Soft Xâ€ray Detectors Based on SnS Nanosheets for the Water Window Region. Advanced Functional Materials, 2022, 32, 2105038.	14.9	11
3	Mixed Ionicâ€Electronic Charge Transport in Layered Blackâ€Phosphorus for Lowâ€Power Memory. Advanced Functional Materials, 2022, 32, 2107068.	14.9	16
4	Improving sensing of formaldehyde using ZnO nanostructures with surface-adsorbed oxygen. Nanoscale Advances, 2022, 4, 546-561.	4.6	5
5	Direct conversion of CO₂ to solid carbon by Ga-based liquid metals. Energy and Environmental Science, 2022, 15, 595-600.	30.8	45
6	Electrochemical Stability of Zinc and Copper Surfaces in Protic Ionic Liquids. Langmuir, 2022, 38, 4633-4644.	3.5	4
7	Nicotine Sensors for Wearable Battery-Free Monitoring of Vaping. ACS Sensors, 2022, 7, 82-88.	7.8	9
8	Surface Functionalization of WS₂ Nanosheets with Alkyl Chains for Enhancement of Dispersion Stability and Tribological Properties. ACS Applied Materials & Interfaces, 2022, 14, 1334-1346.	8.0	10
9	Towards higher electrochemical stability of electrolytes: lithium salt design through in silico screening. Journal of Materials Chemistry A, 2022, 10, 13254-13265.	10.3	4
10	Reactive Oxygen Species Sequestration Induced Synthesis of Î²-PbO and Its Polymorphic Transformation to Î±-PbO at Atomically Thin Regimes. ACS Nano, 2022, 16, 10679-10691.	14.6	3
11	Fully Lightâ€Controlled Memory and Neuromorphic Computation in Layered Black Phosphorus. Advanced Materials, 2021, 33, e2004207.	21.0	147
12	The interaction of several fluorinated ionic liquids on the LiF(001) surface. Surfaces and Interfaces, 2021, 22, 100836.	3.0	3
13	Using 3D Printing to Visualize 2D Chromatograms and NMR Spectra for the Classroom. Journal of Chemical Education, 2021, 98, 1024-1030.	2.3	8
14	Role of Surface Paramagnetic Oxygen Species in the Desulfurization Reactions on Zinc Oxide. Journal of Physical Chemistry C, 2021, 125, 4559-4566.	3.1	1
15	The (Inâ€)Stability of the Ionic Liquids [(TMEDA)BH₂][TFSI] and â^'[FSI] on the Li(001) Surface. Batteries and Supercaps, 2021, 4, 1126-1134.	4.7	5
16	Broad-Spectrum Solvent-free Layered Black Phosphorus as a Rapid Action Antimicrobial. ACS Applied Materials & Interfaces, 2021, 13, 17340-17352.	8.0	24
17	Maximum piezoelectricity in a few unit-cell thick planar ZnO â€“ A liquid metal-based synthesis approach. Materials Today, 2021, 44, 69-77.	14.2	44
18	2D/3D Hybrid of MoS₂/GaN for a High-Performance Broadband Photodetector. ACS Applied Electronic Materials, 2021, 3, 2407-2414.	4.3	70

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19	Spectroscopic and Computational Study of Boronium Ionic Liquids and Electrolytes. Chemistry - A European Journal, 2021, 27, 12826-12834.	3.3	7
20	Black Phosphorusâ€"Diketopyrrolopyrrole Polymer Semiconductor Hybrid for Enhanced Charge Transfer and Photodetection. Advanced Photonics Research, 2021, 2, 2100150.	3.6	3
21	Alkali-Assisted Hydrothermal Exfoliation and Surfactant-Driven Functionalization of h-BN Nanosheets for Lubrication Enhancement. ACS Applied Nano Materials, 2021, 4, 9143-9154.	5.0	14
22	Fluorinated Boron-Based Anions for Higher Voltage Li Metal Battery Electrolytes. Nanomaterials, 2021, 11, 2391.	4.1	4
23	Mono- to few-layer non-van der Waals 2D lanthanide-doped NaYF₄nanosheets with upconversion luminescence. 2D Materials, 2021, 8, 015005.	4.4	3
24	Tuning the Schottky barrier height in a multiferroic In2Se3/Fe3GeTe2 van der Waals heterojunction. Nanoscale, 2021, , .	5.6	11
25	Predicting Thermal Properties of Crystals Using Machine Learning. Advanced Theory and Simulations, 2020, 3, 1900208.	2.8	34
26	Ordered-vacancy-enabled indium sulphide printed in wafer-scale with enhanced electron mobility. Materials Horizons, 2020, 7, 827-834.	12.2	27
27	Theoretical insight on the origin of anelasticity in zinc oxide nanowires. Nanoscale, 2020, 12, 2439-2444.	5.6	2
28	Broadband Photodetectors: Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors (Adv. Mater. 45/2020). Advanced Materials, 2020, 32, 2070338.	21.0	2
29	Liquid Metals in Catalysis for Energy Applications. Joule, 2020, 4, 2290-2321.	24.0	106
30	Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors. Advanced Materials, 2020, 32, e2004247.	21.0	66
31	Interplay of Mechanical and Chemical Tunability of Phosphorene for Flexible Nanoelectronic Applications. Journal of Physical Chemistry C, 2020, 124, 24391-24399.	3.1	5
32	Monocrystalline Antimonene Nanosheets via Physical Vapor Deposition. Advanced Materials Interfaces, 2020, 7, 2001678.	3.7	14
33	Structural-Defect-Mediated Grafting of Alkylamine on Few-Layer MoS₂ and Its Potential for Enhancement of Tribological Properties. ACS Applied Materials & Interfaces, 2020, 12, 30720-30730.	8.0	30
34	Development of Stable Boron Nitride Nanotube and Hexagonal Boron Nitride Dispersions for Electrophoretic Deposition. Langmuir, 2020, 36, 3425-3438.	3.5	13
35	Electrically Activated UV-A Filters Based on Electrochromic MoO_{3â€“x}. ACS Applied Materials & Interfaces, 2020, 12, 16997-17003.	8.0	45
36	Stability of Boronium Cation-Based Ionic Liquid Electrolytes on the Li Metal Anode Surface. ACS Applied Energy Materials, 2020, 3, 5497-5509.	5.1	24

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37	Differential Work-Function Enabled Bifunctional Switching in Strontium Titanate Flexible Resistive Memories. ACS Applied Materials & Interfaces, 2020, 12, 7326-7333.	8.0	9
38	Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus. Advanced Functional Materials, 2019, 29, 1901991.	14.9	97
39	Adsorption of toxic gases on silicene/Ag(111). Physical Chemistry Chemical Physics, 2019, 21, 17521-17537.	2.8	17
40	Combining computational and experimental approaches to select chromophores to enable the detection of fatty acids via HPLC. Analytical Methods, 2019, 11, 2952-2959.	2.7	5
41	The interaction of ethylammonium tetrafluoroborate [EtNH₃⁺][BF₄^{â^'}] ionic liquid on the Li(001) surface: towards understanding early SEI formation on Li metal. Physical Chemistry Chemical Physics, 2019, 21, 10028-10037.	2.8	20
42	Tuning the work function of the silicene/4 Ã— 4 Ag(111) surface. Physical Chemistry Chemical Physics, 2019, 21, 7165-7173.	2.8	11
43	Electrically Sorted Single-Walled Carbon Nanotubes-Based Electron Transporting Layers for Perovskite Solar Cells. IScience, 2019, 14, 100-112.	4.1	36
44	Uncovering New Buckled Structures of Bilayer GaN: A First-Principles Study. Journal of Physical Chemistry C, 2019, 123, 1939-1947.	3.1	6
45	Generating strong room-temperature photoluminescence in black phosphorus using organic molecules. 2D Materials, 2019, 6, 015009.	4.4	15
46	Understanding the Link between Anion Structure and Lithium Coordination. ECS Meeting Abstracts, 2019, , .	0.0	0
47	Chemical modification of group IV graphene analogs. Science and Technology of Advanced Materials, 2018, 19, 76-100.	6.1	33
48	A Simplified Method for the 3D Printing of Molecular Models for Chemical Education. Journal of Chemical Education, 2018, 95, 88-96.	2.3	44
49	Chirality-2: Development of a Multilevel Mobile Gaming App To Support the Teaching of Introductory Undergraduate-Level Organic Chemistry. Journal of Chemical Education, 2018, 95, 1216-1220.	2.3	41
50	Zinc oxide for gas sensing of formaldehyde: Density functional theory modelling of the effect of nanostructure morphology and gas concentration on the chemisorption reaction. Materials Chemistry and Physics, 2017, 193, 274-284.	4.0	23
51	Ambient Protection of Fewâ€Layer Black Phosphorus via Sequestration of Reactive Oxygen Species. Advanced Materials, 2017, 29, 1700152.	21.0	141
52	Density Functional Theory and ab Initio Molecular Dynamics Investigation of Hydronium Interactions with Graphene. Energy Procedia, 2017, 110, 518-522.	1.8	4
53	Surface Reactions of Ethylene Carbonate and Propylene Carbonate on the Li(001) Surface. Electrochimica Acta, 2017, 243, 320-330.	5.2	26
54	Effect of nanostructuring of ZnO for gas sensing of nitrogen dioxide. Computational Materials Science, 2017, 132, 104-115.	3.0	23

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55	Elemental Two-Dimensional Materials Beyond Graphene. ChemistrySelect, 2017, 2, .	1.5	0
56	Tuning the band gap of silicene by functionalisation with naphthyl and anthracyl groups. Journal of Chemical Physics, 2016, 144, 114704.	3.0	6
57	Infrared Spectroscopy-Based Metabolomic Analysis for the Detection of Preharvest Sprouting in Grain. Cereal Chemistry, 2016, 93, 444-449.	2.2	8
58	Guest Editorial Introduction. Molecular Simulation, 2016, 42, 447-447.	2.0	0
59	Monolayer-to-bilayer transformation of silicenes and their structural analysis. Nature Communications, 2016, 7, 10657.	12.8	88
60	Phenol-Modified Silicene: Preferred Substitution Site and Electronic Properties. Journal of Physical Chemistry C, 2016, 120, 6762-6770.	3.1	8
61	The science and life of Ian K. Snook. Molecular Simulation, 2016, 42, 448-457.	2.0	0
62	Manipulation of carbon nanotube magnetism with metal-rich iron nanoparticles. Journal of Materials Chemistry C, 2016, 4, 1215-1227.	5.5	7
63	Theoretical Studies of Functionalised Silicene. Springer Series in Materials Science, 2016, , 107-127.	0.6	1
64	How silicene on Ag(111) oxidizes: microscopic mechanism of the reaction of O2 with silicene. Scientific Reports, 2015, 5, 17570.	3.3	28
65	Electronic Tuning of 2D MoS₂ through Surface Functionalization. Advanced Materials, 2015, 27, 6225-6229.	21.0	194
66	Micro versus macro solid phase extraction for monitoring water contaminants: A preliminary study using trihalomethanes. Science of the Total Environment, 2015, 512-513, 210-214.	8.0	30
67	Assessment of arsenic in Australian grown and imported rice varieties on sale in Australia and potential links with irrigation practises and soil geochemistry. Chemosphere, 2015, 138, 1008-1013.	8.2	24
68	Catalytic potential of highly defective (211) surfaces of zinc blende ZnO. Physical Chemistry Chemical Physics, 2015, 17, 27683-27689.	2.8	7
69	The adsorption of NO on YSZ(111) and oxygen-enriched YSZ(111) surfaces. Chemical Physics Letters, 2014, 593, 61-68.	2.6	3
70	Mechanochemical lithiation of layered polysilane. Chemical Communications, 2014, 50, 9761-9764.	4.1	21
71	Anion secondary batteries utilizing a reversible BF4 insertion/extraction two-dimensional Si material. Journal of Materials Chemistry A, 2014, 2, 7588.	10.3	32
72	Activity of ZnO polar surfaces: an insight from surface energies. Physical Chemistry Chemical Physics, 2014, 16, 22139-22144.	2.8	87

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73	A New Surface and Structure for Silicene: Polygonal Silicene Formation on the Al(111) Surface. Journal of Physical Chemistry C, 2013, 117, 22142-22148.	3.1	62
74	Effect of ZnO Nanostructure Morphology on the Sensing of H2S Gas. Journal of Physical Chemistry C, 2013, 117, 26106-26118.	3.1	39
75	Adsorption of NO₂ on YSZ(111) and Oxygen-Enriched YSZ(111) Surfaces. Journal of Physical Chemistry C, 2013, 117, 12472-12482.	3.1	9
76	Interactions between stacked layers of phenyl-modified silicene. New Journal of Physics, 2013, 15, 125018.	2.9	13
77	Density functional theory calculations of phenol-modified monolayer silicon nanosheets. , 2013, , .		2
78	Interaction of hydrogen with ZnO nanopowdersâ€"evidence of hydroxyl group formation. Nanotechnology, 2012, 23, 015705.	2.6	38
79	Reconstruction and electronic properties of silicon nanosheets as a function of thickness. Nanoscale, 2012, 4, 2906.	5.6	34
80	Surface defects on ZnO nanowires: implications for design of sensors. Journal of Physics Condensed Matter, 2012, 24, 305001.	1.8	23
81	Gas sensing applications of 1D-nanostructured zinc oxide: Insights from density functional theory calculations. Progress in Materials Science, 2012, 57, 437-486.	32.8	195
82	The electronic and structural properties of novel organomodified Si nanosheets. Physical Chemistry Chemical Physics, 2011, 13, 15418.	2.8	35
83	Interaction of hydrogen with zinc oxide nanorods: why the spacing is important. Nanotechnology, 2011, 22, 135704.	2.6	7
84	Surface reconstruction of ultrathin silicon nanosheets. Chemical Physics Letters, 2011, 506, 221-225.	2.6	47
85	Density functional theory modelling of and surfaces: Structure, properties and adsorption of N2O. Materials Chemistry and Physics, 2010, 119, 505-514.	4.0	34
86	First-principles study of structural and electronic properties of ultrathin silicon nanosheets. Physical Review B, 2010, 82, .	3.2	52
87	ZnO Nanostructures for Gas Sensing: Interaction of NO₂, NO, O, and N with the ZnO(101Ì…0) Surface. Journal of Physical Chemistry C, 2010, 114, 10881-10893.	3.1	101
88	Adsorption of NO₂ on Oxygen Deficient ZnO(21Ì…1Ì…0) for Gas Sensing Applications: A DFT Study. Journal of Physical Chemistry C, 2010, 114, 16603-16610.	3.1	67
89	Adsorption of NO and NO2 on the ZnO() surface: A DFT study. Surface Science, 2009, 603, 3389-3399.	1.9	49
90	Adsorption of atomic nitrogen and oxygen on mathrm {ZnO(2ar {1} ar {1}0)} surface: a density functional theory study. Journal of Physics Condensed Matter, 2009, 21, 144208.	1.8	13

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91	H2S dissociation on the Fe(100) surface: An ab initio molecular dynamics study. Surface Science, 2008, 602, 1547-1553.	1.9	32
92	Ab Initio Molecular Dynamics Study of H₂S Dissociation on the Fe(110) Surface. Journal of Physical Chemistry C, 2007, 111, 16372-16378.	3.1	24
93	Ab initio study of S dynamics on iron surfaces. Surface Science, 2007, 601, 665-671.	1.9	19
94	Effect of S Arrangement on Fe(110) Properties at 1/3 Monolayer Coverage:Â A DFT Study. Journal of Physical Chemistry B, 2006, 110, 956-962.	2.6	18
95	Effect of S contamination on properties of Fe(100) surfaces. Surface Science, 2005, 590, 63-75.	1.9	20
96	Effect of Sulfur Coverage on Fe(110) Adhesion:Â A DFT Study. Journal of Physical Chemistry B, 2005, 109, 10204-10212.	2.6	7
97	Coverage-Dependent Adsorption of Atomic Sulfur on Fe(110):Â A DFT Study. Journal of Physical Chemistry B, 2005, 109, 9604-9612.	2.6	25
98	A DFT study of the perovskite and hexagonal phases of BaTiO3. Computational Materials Science, 2005, 34, 157-165.	3.0	41
99	Adsorption of silane and methylsilane on gold surfaces. Surface Science, 2004, 573, 151-168.	1.9	14
100	Effect of Sulfur Impurity on Fe(110) Adhesion:Â A DFT Study. Journal of Physical Chemistry B, 2004, 108, 10965-10972.	2.6	13
101	Hydrogen bonding in mixed ligand copper organophosphonates. Chemical Physics Letters, 2003, 378, 400-405.	2.6	4
102	Sulfur adsorption on Fe(110): a DFT study. Surface Science, 2003, 540, 420-430.	1.9	42
103	Adsorption of methylsilane on copper surfaces. Surface Science, 2003, 543, 162-184.	1.9	9
104	Iron Surfaces: Pathways to Interfaces. Surface Review and Letters, 2003, 10, 169-174.	1.1	9
105	DFT modelling of hydrogen on Cu(110)- and (111)-type clusters. Molecular Simulation, 2002, 28, 807-825.	2.0	13
106	Adsorption of SiH4 on copper () and () surfaces. Surface Science, 2002, 505, 308-324.	1.9	7
107	Density functional theory study of the relaxation and energy of iron surfaces. Surface Science, 2002, 513, 389-398.	1.9	154
108	Further studies of iron adhesion: () surfaces. Surface Science, 2002, 515, L464-L468.	1.9	19