Chris R Bowen

List of Publications by Year
in descending order

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470 papers	19,003 citations	14614 66 h-index	19690 117 g-index
487 all docs	487 docs citations	487 times ranked	17877 citing authors

#	Article	IF	Citations
1	Piezoelectric and ferroelectric materials and structures for energy harvesting applications. Energy and Environmental Science, 2014, 7, 25-44.	15.6	926
2	Recent advances in metal sulfides: from controlled fabrication to electrocatalytic, photocatalytic and photoelectrochemical water splitting and beyond. Chemical Society Reviews, 2019, 48, 4178-4280.	18.7	810
3	Pyroelectric materials and devices for energy harvesting applications. Energy and Environmental Science, 2014, 7, 3836-3856.	15.6	630
4	Interface design for high energy density polymer nanocomposites. Chemical Society Reviews, 2019, 48, 4424-4465.	18.7	531
5	A review of growth mechanism, structure and crystallinity of anodized TiO2 nanotubes. Materials Science and Engineering Reports, 2013, 74, 377-406.	14.8	519
6	New materials for micro-scale sensors and actuators. Materials Science and Engineering Reports, 2007, 56, 1-129.	14.8	438
7	Gas sensing using porous materials for automotive applications. Chemical Society Reviews, 2015, 44, 4290-4321.	18.7	406
8	Multiscale-structuring of polyvinylidene fluoride for energy harvesting: the impact of molecular-, micro- and macro-structure. Journal of Materials Chemistry A, 2017, 5, 3091-3128.	5.2	406
9	Anti-Ferroelectric Ceramics for High Energy Density Capacitors. Materials, 2015, 8, 8009-8031.	1.3	263
10	Flexible Multifunctional Sensors for Wearable and Robotic Applications. Advanced Materials Technologies, 2019, 4, 1800626.	3.0	221
11	Fabrication of HA/TCP scaffolds with a graded and porous structure using a camphene-based freeze-casting method. Acta Biomaterialia, 2009, 5, 1319-1327.	4.1	207
12	Effect of heat treatment on the properties and structure of TiO₂ nanotubes: phase composition and chemical composition. Surface and Interface Analysis, 2010, 42, 139-144.	0.8	180
13	Enhanced pyroelectric and piezoelectric properties of PZT with aligned porosity for energy harvesting applications. Journal of Materials Chemistry A, 2017, 5, 6569-6580.	5.2	176
14	Spinel photocatalysts for environmental remediation, hydrogen generation, CO₂ reduction and photoelectrochemical water splitting. Journal of Materials Chemistry A, 2018, 6, 11078-11104.	5.2	176
15	A Self-Powered Wearable Pressure Sensor and Pyroelectric Breathing Sensor Based on GO Interfaced PVDF Nanofibers. ACS Applied Nano Materials, 2019, 2, 2013-2025.	2.4	168
16	Electrical characterization of hydroxyapatite-based bioceramics. Acta Biomaterialia, 2009, 5, 743-754.	4.1	165
17	Anomalous Power Law Dispersions in ac Conductivity and Permittivity Shown to be Characteristics of Microstructural Electrical Networks. Physical Review Letters, 2004, 92, 157601.	2.9	160
18	Ultra-high discharged energy density capacitor using high aspect ratio Na_{0.5}Bi_{0.5}TiO₃ nanofibers. Journal of Materials Chemistry A, 2017, 5, 7091-7102.	5.2	157

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19	Electronic structure engineering on two-dimensional (2D) electrocatalytic materials for oxygen reduction, oxygen evolution, and hydrogen evolution reactions. Nano Energy, 2020, 77, 105080.	8.2	157
20	Piezoelectric Material-Polymer Composite Porous Foam for Efficient Dye Degradation via the Piezo-Catalytic Effect. ACS Applied Materials & Interfaces, 2019, 11, 27862-27869.	4.0	156
21	Electrically Active Bioceramics: A Review of Interfacial Responses. Annals of Biomedical Engineering, 2010, 38, 2079-2092.	1.3	147
22	Phase structure and properties of sodium bismuth titanate lead-free piezoelectric ceramics. Progress in Materials Science, 2021, 122, 100836.	16.0	139
23	Processing and properties of porous piezoelectric materials with high hydrostatic figures of merit. Journal of the European Ceramic Society, 2004, 24, 541-545.	2.8	137
24	Control of electro-chemical processes using energy harvesting materials and devices. Chemical Society Reviews, 2017, 46, 7757-7786.	18.7	135
25	Flexible and active self-powered pressure, shear sensors based on freeze casting ceramicâ€“polymer composites. Energy and Environmental Science, 2018, 11, 2919-2927.	15.6	130
26	Piezoelectric effects and electromechanical theories at the nanoscale. Nanoscale, 2014, 6, 13314-13327.	2.8	127
27	Recent Advances in Organic and Organicâ€“Inorganic Hybrid Materials for Piezoelectric Mechanical Energy Harvesting. Advanced Functional Materials, 2022, 32, .	7.8	124
28	Factors influencing surface morphology of anodized TiO2 nanotubes. Electrochimica Acta, 2012, 74, 244-253.	2.6	118
29	Energy Harvesting Technologies for Tire Pressure Monitoring Systems. Advanced Energy Materials, 2015, 5, 1401787.	10.2	115
30	Construction of Bioâ€Piezoelectric Platforms: From Structures and Synthesis to Applications. Advanced Materials, 2021, 33, e2008452.	11.1	114
31	Porous PZT ceramics for receiving transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 289-296.	1.7	112
32	Micro-scale to nano-scale generators for energy harvesting: Self powered piezoelectric, triboelectric and hybrid devices. Physics Reports, 2019, 792, 1-33.	10.3	111
33	Optimal configurations of bistable piezo-composites for energy harvesting. Applied Physics Letters, 2012, 100, .	1.5	110
34	Giant pyroelectric energy harvesting and a negative electrocaloric effect in multilayered nanostructures. Energy and Environmental Science, 2016, 9, 1335-1345.	15.6	109
35	Multi-sensor data fusion framework for CNC machining monitoring. Mechanical Systems and Signal Processing, 2016, 66-67, 505-520.	4.4	108
36	Ferroelectret materials and devices for energy harvesting applications. Nano Energy, 2019, 57, 118-140.	8.2	108

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37	Thermal Energy Harvesting Using Pyroelectric-Electrochemical Coupling in Ferroelectric Materials. Joule, 2020, 4, 301-309.	11.7	103
38	Bistable composite laminates: Effects of laminate composition on cured shape and response to thermal load. Composite Structures, 2010, 92, 2220-2225.	3.1	101
39	Characterisation and modelling of the cured shapes of arbitrary layup bistable composite laminates. Composite Structures, 2010, 92, 1694-1700.	3.1	101
40	Piezo-photoelectronic coupling effect of BaTiO3@TiO2 nanowires for highly concentrated dye degradation. Nano Energy, 2022, 92, 106702.	8.2	100
41	Optimisation of interdigitated electrodes for piezoelectric actuators and active fibre composites. Journal of Electroceramics, 2006, 16, 263-269.	0.8	99
42	Understanding the effect of porosity on the polarisation-field response of ferroelectric materials. Acta Materialia, 2018, 154, 100-112.	3.8	97
43	Modelling and fabrication of porous sandwich layer barium titanate with improved piezoelectric energy harvesting figures of merit. Acta Materialia, 2017, 128, 207-217.	3.8	92
44	Optimum resistance analysis and experimental verification of nonlinear piezoelectric energy harvesting from human motions. Energy, 2017, 118, 221-230.	4.5	92
45	Electrical and Mechanical Selfâ€Healing in Highâ€Performance Dielectric Elastomer Actuator Materials. Advanced Functional Materials, 2019, 29, 1808431.	7.8	92
46	Micropatterning of Flexible and Free Standing Polyvinylidene Difluoride (PVDF) Films for Enhanced Pyroelectric Energy Transformation. Advanced Energy Materials, 2015, 5, 1401891.	10.2	91
47	Mutual Insight on Ferroelectrics and Hybrid Halide Perovskites: A Platform for Future Multifunctional Energy Conversion. Advanced Materials, 2019, 31, e1807376.	11.1	91
48	Modelling the 'universal' dielectric response in heterogeneous materials using microstructural electrical networks. Materials Science and Technology, 2006, 22, 719-724.	0.8	90
49	Dynamic crosslinked rubbers for a green future: A material perspective. Materials Science and Engineering Reports, 2020, 141, 100561.	14.8	90
50	Piezoelectric Materials for Controlling Electro-Chemical Processes. Nano-Micro Letters, 2020, 12, 149.	14.4	87
51	Morphing and Shape Control using Unsymmetrical Composites. Journal of Intelligent Material Systems and Structures, 2007, 18, 89-98.	1.4	83
52	Diagnosis of carbonation induced corrosion initiation and progression in reinforced concrete structures using piezo-impedance transducers. Sensors and Actuators A: Physical, 2016, 242, 79-91.	2.0	82
53	Challenges and Opportunities of Selfâ€Healing Polymers and Devices for Extreme and Hostile Environments. Advanced Materials, 2021, 33, e2008052.	11.1	82
54	Graphene Ink Laminate Structures on Poly(vinylidene difluoride) (PVDF) for Pyroelectric Thermal Energy Harvesting and Waste Heat Recovery. ACS Applied Materials & Interfaces, 2017, 9, 9161-9167.	4.0	80

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55	Composite dielectrics and conductors: simulation, characterization and design. Journal Physics D: Applied Physics, 2006, 39, 1295-1304.	1.3	78
56	Macro, micro and nanostructure of TiO2 anodised films prepared in a fluorine-containing electrolyte. Journal of Materials Science, 2007, 42, 6729-6734.	1.7	77
57	Mechanical properties of titanium-based Tiâ€“6Alâ€“4V alloys manufactured by powder bed additive manufacture. Materials Science and Technology, 2017, 33, 138-148.	0.8	77
58	Recent Advances in Pyroelectric Materials and Applications. Small, 2021, 17, e2103960.	5.2	77
59	Significantly enhanced permittivity and energy density in dielectric composites with aligned BaTiO₃ lamellar structures. Journal of Materials Chemistry A, 2020, 8, 3135-3144.	5.2	75
60	A modified figure of merit for pyroelectric energy harvesting. Materials Letters, 2015, 138, 243-246.	1.3	74
61	Methylammonium Lead Iodide Incorporated Poly(vinylidene fluoride) Nanofibers for Flexible Piezoelectricâ€“Pyroelectric Nanogenerator. ACS Applied Materials & Interfaces, 2019, 11, 27279-27287.	4.0	74
62	Piezoelectric sensitivity of PbTiO3-based ceramic/polymer composites with 0â€“3 and 3â€–3 connectivity. Acta Materialia, 2003, 51, 4965-4976.	3.8	72
63	Dielectric and piezoelectric properties of hydroxyapatite-BaTiO3 composites. Applied Physics Letters, 2006, 89, 132906.	1.5	72
64	Porous ferroelectrics for energy harvesting applications. European Physical Journal: Special Topics, 2015, 224, 2949-2966.	1.2	72
65	Differences and Similarities of Photocatalysis and Electrocatalysis in Two-Dimensional Nanomaterials: Strategies, Traps, Applications and Challenges. Nano-Micro Letters, 2021, 13, 156.	14.4	71
66	Triboelectric and Piezoelectric Nanogenerators for Future Soft Robots and Machines. IScience, 2020, 23, 101682.	1.9	70
67	A coupled photo-piezo-catalytic effect in a BST-PDMS porous foam for enhanced dye wastewater degradation. Nano Energy, 2020, 77, 105305.	8.2	70
68	An in vitro study of electrically active hydroxyapatite-barium titanate ceramics using Saos-2 cells. Journal of Materials Science: Materials in Medicine, 2009, 20, 1697-1708.	1.7	69
69	Polarization of hydroxyapatite: Influence on osteoblast cell proliferation. Acta Biomaterialia, 2010, 6, 1549-1554.	4.1	69
70	Experimental analysis of the dynamical response of energy harvesting devices based on bistable laminated plates. Meccanica, 2015, 50, 1961-1970.	1.2	69
71	Porous <scp>PZT</scp> Ceramics with Aligned Pore Channels for Energy Harvesting Applications. Journal of the American Ceramic Society, 2015, 98, 2980-2983.	1.9	68
72	Non-linear control of a hydraulic piezo-valve using a generalised Prandtlâ€“Ishlinskii hysteresis model. Mechanical Systems and Signal Processing, 2017, 82, 412-431.	4.4	68

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73	Wireless Monitoring of Small Strains in Intelligent Robots via a Joule Heating Effect in Stretchable Grapheneâ€“Polymer Nanocomposites. Advanced Functional Materials, 2020, 30, 1910809.	7.8	68
74	Breakdown in the Case for Materials with Giant Permittivity?. ACS Energy Letters, 2017, 2, 2264-2269.	8.8	67
75	Tailoring the electrical and thermal conductivity of multi-component and multi-phase polymer composites. International Materials Reviews, 2020, 65, 129-163.	9.4	67
76	Modern Piezoelectric Energy-Harvesting Materials. Springer Series in Materials Science, 2016, , .	0.4	67
77	Pyroelectric energy harvesting for water splitting. International Journal of Hydrogen Energy, 2017, 42, 23437-23445.	3.8	66
78	Modified energy harvesting figures of merit for stress- and strain-driven piezoelectric systems. European Physical Journal: Special Topics, 2019, 228, 1537-1554.	1.2	66
79	Demonstration of Enhanced Piezo-Catalysis for Hydrogen Generation and Water Treatment at the Ferroelectric Curie Temperature. IScience, 2020, 23, 101095.	1.9	64
80	The Frequency Dependent Permittivity and AC Conductivity of Random Electrical Networks. Ferroelectrics, 2005, 319, 199-208.	0.3	63
81	Performance enhancement of nonlinear asymmetric bistable energy harvesting from harmonic, random and human motion excitations. Applied Physics Letters, 2018, 112, .	1.5	63
82	Developments and Perspectives on Robust Nanoâ€•and Microstructured Binderâ€Free Electrodes for Bifunctional Water Electrolysis and Beyond. Advanced Energy Materials, 2022, 12, .	10.2	63
83	Effective elastic properties for unpoled barium titanate. Journal of the European Ceramic Society, 2007, 27, 3739-3743.	2.8	62
84	Modeling and characterization of piezoelectrically actuated bistable composites. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1737-1750.	1.7	62
85	High performance bifunctional electrocatalytic activity of a reduced graphene oxideâ€“molybdenum oxide hybrid catalyst. Journal of Materials Chemistry A, 2016, 4, 13271-13279.	5.2	62
86	Significantly Enhanced Energy Storage Density by Modulating the Aspect Ratio of BaTiO3 Nanofibers. Scientific Reports, 2017, 7, 45179.	1.6	61
87	Tailoring the geometric and electronic structure of tungsten oxide with manganese or vanadium doping toward highly efficient electrochemical and photoelectrochemical water splitting. Journal of Materials Chemistry A, 2019, 7, 6161-6172.	5.2	61
88	Freeze cast porous barium titanate for enhanced piezoelectric energy harvesting. Journal Physics D: Applied Physics, 2018, 51, 225301.	1.3	59
89	A microscopy study of the effect of heat treatment on the structure and properties of anodised TiO2 nanotubes. Applied Surface Science, 2010, 256, 2672-2679.	3.1	58
90	One-structure-based multi-effects coupled nanogenerators for flexible and self-powered multi-functional coupled sensor systems. Nano Energy, 2020, 71, 104632.	8.2	58

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91	Nonlinear dynamics of a bistable piezoelectric-composite energy harvester for broadband application. European Physical Journal: Special Topics, 2013, 222, 1553-1562.	1.2	57
92	An Explanation of the Photoinduced Giant Dielectric Constant of Lead Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 1736-1740.	2.1	57
93	Porous ferroelectric materials for energy technologies: current status and future perspectives. Energy and Environmental Science, 2021, 14, 6158-6190.	15.6	56
94	Modelling of piezoelectrically actuated bistable composites. Materials Letters, 2011, 65, 1261-1263.	1.3	55
95	Sensitivity of bistable laminates to uncertainties in material properties, geometry and environmental conditions. Composite Structures, 2013, 102, 276-286.	3.1	55
96	Significantly improved energy density of BaTiO₃ nanocomposites by accurate interfacial tailoring using a novel rigid-fluoro-polymer. Polymer Chemistry, 2018, 9, 548-557.	1.9	55
97	Self-Healing Dielectric Elastomers for Damage-Tolerant Actuation and Energy Harvesting. ACS Applied Materials & Interfaces, 2020, 12, 7595-7604.	4.0	55
98	Enhanced swing electromagnetic energy harvesting from human motion. Energy, 2021, 228, 120591.	4.5	54
99	Shape Memory Alloy-Piezoelectric Active Structures for Reversible Actuation of Bistable Composites. AIAA Journal, 2010, 48, 1265-1268.	1.5	53
100	A review and analysis of the elasto-caloric effect for solidstate refrigeration devices: Challenges and opportunities. MRS Energy & Sustainability, 2015, 2, 1.	1.3	53
101	Pore anisotropy in 3â€“3 piezoelectric composites. Materials Chemistry and Physics, 2002, 75, 45-49.	2.0	51
102	Characterisation of barium titanate-silver composites, part I: Microstructure and mechanical properties. Journal of Materials Science, 2006, 41, 3837-3843.	1.7	51
103	Virtual visual sensors and their application in structural health monitoring. Structural Health Monitoring, 2014, 13, 251-264.	4.3	51
104	Mechanical characterisation of polymer of intrinsic microporosity PIM-1 for hydrogen storage applications. Journal of Materials Science, 2017, 52, 3862-3875.	1.7	51
105	Janus nanostructures for heterogeneous photocatalysis. Applied Physics Reviews, 2018, 5, 041111.	5.5	51
106	Intrinsic Tuning of Poly(styreneâ€“butadieneâ€“styrene)-Based Self-Healing Dielectric Elastomer Actuators with Enhanced Electromechanical Properties. ACS Applied Materials & Interfaces, 2018, 10, 38438-38448.	4.0	51
107	Characterisation of actuation properties of piezoelectric bi-stable carbon-fibre laminates. Composites Part A: Applied Science and Manufacturing, 2008, 39, 697-703.	3.8	50
108	Pyro-electrolytic water splitting for hydrogen generation. Nano Energy, 2019, 58, 183-191.	8.2	50

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109	Finite element modelling of dense and porous piezoceramic disc hydrophones. Ultrasonics, 2005, 43, 173-181.	2.1	48
110	An analysis of lead-free (Bi0.5Na0.5)0.915-(Bi0.5K0.5)0.05Ba0.02Sr0.015TiO3 ceramic for efficient refrigeration and thermal energy harvesting. Journal of Applied Physics, 2014, 115, .	1.1	48
111	Manufacture and characterization of high activity piezoelectric fibres. Smart Materials and Structures, 2006, 15, 295-301.	1.8	47
112	Self-Healing of Materials under High Electrical Stress. Matter, 2020, 3, 989-1008.	5.0	47
113	Nonlinear dynamics and performance enhancement of asymmetric potential bistable energy harvesters. Nonlinear Dynamics, 2018, 94, 1183-1194.	2.7	46
114	Recent Progress in Hybridized Nanogenerators for Energy Scavenging. IScience, 2020, 23, 101689.	1.9	46
115	Analytical modelling of 3-3 piezoelectric composites. Journal of the European Ceramic Society, 2001, 21, 1463-1467.	2.8	45
116	Macro-porous Ti2AlC MAX-phase ceramics by the foam replication method. Ceramics International, 2015, 41, 12178-12185.	2.3	45
117	Improved heat transfer for pyroelectric energy harvesting applications using a thermal conductive network of aluminum nitride in PMNâ€“PMSâ€“PZT ceramics. Journal of Materials Chemistry A, 2018, 6, 5040-5051.	5.2	45
118	High piezoelectric sensitivity and hydrostatic figures of merit in unidirectional porous ferroelectric ceramics fabricated by freeze casting. Journal of the European Ceramic Society, 2018, 38, 4203-4211.	2.8	45
119	Enhanced photocurrent via ferro-pyro-phototronic effect in ferroelectric BaTiO3 materials for a self-powered flexible photodetector system. Nano Energy, 2020, 77, 105152.	8.2	44
120	Soft Actuators and Robotic Devices for Rehabilitation and Assistance. Advanced Intelligent Systems, 2022, 4, 2100140.	3.3	44
121	AC electrical properties of TiO2 and MagnÃ©li phases, TinO2nâ^'1. Solid State Ionics, 2012, 229, 38-44.	1.3	43
122	Hydrogen storage in polymer-based processable microporous composites. Journal of Materials Chemistry A, 2017, 5, 18752-18761.	5.2	43
123	Highly Stretchable Capacitive Sensor with Printed Carbon Black Electrodes on Barium Titanate Elastomer Composite. Sensors, 2019, 19, 42.	2.1	43
124	Dynamic Polymer Networks: A New Avenue towards Sustainable and Advanced Soft Machines. Angewandte Chemie - International Edition, 2021, 60, 13725-13736.	7.2	43
125	Commercialisation of CMOS Integrated Circuit Technology in Multi-Electrode Arrays for Neuroscience and Cell-Based Biosensors. Sensors, 2011, 11, 4943-4971.	2.1	42
126	Manufacture and characterization of porous ferroelectrics for piezoelectric energy harvesting applications. Ferroelectrics, 2016, 498, 40-46.	0.3	41

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127	High Performance Capacitors Using BaTiO₃ Nanowires Engineered by Rigid Liquid-crystalline Polymers. Journal of Physical Chemistry C, 2017, 121, 20075-20083.	1.5	41
128	Characterisation of ferroelectric-calcium phosphate composites and ceramics. Journal of the European Ceramic Society, 2007, 27, 4187-4190.	2.8	40
129	Complex response of a bistable laminated plate: Multiscale entropy analysis. European Physical Journal Plus, 2014, 129, 1.	1.2	40
130	Intrinsically Tuning the Electromechanical Properties of Elastomeric Dielectrics: A Chemistry Perspective. Macromolecular Rapid Communications, 2018, 39, e1800340.	2.0	40
131	Piezoelectric catalysis for efficient reduction of CO2 using lead-free ferroelectric particulates. Nano Energy, 2022, 95, 107032.	8.2	40
132	Dielectric and piezoelectric properties of porous lead-free 0.5Ba(Ca0.8Zr0.2)O3-0.5(Ba0.7Ca 0.3)TiO3 ceramics. Materials Research Bulletin, 2019, 112, 426-431.	2.7	39
133	Electric field distribution in porous piezoelectric materials during polarization. Acta Materialia, 2019, 173, 332-341.	3.8	39
134	Polarisation tuneable piezo-catalytic activity of Nb-doped PZT with low Curie temperature for efficient CO₂ reduction and H₂ generation. Nanoscale Advances, 2021, 3, 1362-1374.	2.2	39
135	The formation of TiC/Al2O3 microstructures by a self-propagating high-temperature synthesis reaction. Journal of Materials Science, 1996, 31, 3791-3803.	1.7	37
136	Characterisation of barium titanate-silver composites part II: Electrical properties. Journal of Materials Science, 2006, 41, 3845-3851.	1.7	37
137	Manufacturing and characterization of MagnÃ©li phase conductive fibres. Journal of Materials Chemistry A, 2014, 2, 8328-8333.	5.2	37
138	Photocatalytic activity of electrophoretically deposited (EPD) TiO2 coatings. Journal of Materials Science, 2015, 50, 4822-4835.	1.7	37
139	Aligned macroporous TiO2/chitosan/reduced graphene oxide (rGO) composites for photocatalytic applications. Applied Surface Science, 2017, 424, 170-176.	3.1	37
140	Flexible pillar-base structured piezocomposite with aligned porosity for piezoelectric energy harvesting. Nano Energy, 2021, 88, 106278.	8.2	37
141	Thermodynamic predictions for the manufacture of Ti2AlC MAX-phase ceramic by combustion synthesis. Journal of Alloys and Compounds, 2014, 602, 72-77.	2.8	36
142	Environmental performance of nano-structured Ca(OH)2/TiO2 photocatalytic coatings for buildings. Building and Environment, 2015, 92, 734-742.	3.0	36
143	Wind-driven pyroelectric energy harvesting device. Smart Materials and Structures, 2016, 25, 125023.	1.8	36
144	A hybrid strain and thermal energy harvester based on an infra-red sensitive Er3+ modified poly(vinylidene fluoride) ferroelectret structure. Scientific Reports, 2017, 7, 16703.	1.6	36

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145	Carbon fibre based flexible piezoresistive composites to empower inherent sensing capabilities for soft actuators. Soft Matter, 2019, 15, 8001-8011.	1.2	36
146	A stacked electromagnetic energy harvester with frequency up-conversion for swing motion. Applied Physics Letters, 2020, 117, .	1.5	36
147	2D Nanomaterials for Effective Energy Scavenging. Nano-Micro Letters, 2021, 13, 82.	14.4	36
148	Interface charge density modulation of a lamellar-like spatially separated Ni9S8 nanosheet/Nb2O5 nanobelt heterostructure catalyst coupled with nitrogen and metal (MÂ=ÂCo, Fe, or Cu) atoms to accelerate acidic and alkaline hydrogen evolution reactions. Chemical Engineering Journal, 2022, 431, 134073.	6.6	36
149	Microstructural modelling of the polarization and properties of porous ferroelectrics. Smart Materials and Structures, 2011, 20, 085002.	1.8	35
150	A novel piezohydraulic aerospace servovalve. Part 1: design and modelling. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2013, 227, 371-389.	0.7	35
151	Hybrid Synthetic Receptors on MOSFET Devices for Detection of Prostate Specific Antigen in Human Plasma. Analytical Chemistry, 2016, 88, 11486-11490.	3.2	35
152	Using a novel rigid-fluoride polymer to control the interfacial thickness of graphene and tailor the dielectric behavior of poly(vinylidene fluorideâ€“trifluoroethyleneâ€“chlorotrifluoroethylene) nanocomposites. Physical Chemistry Chemical Physics, 2018, 20, 2826-2837.	1.3	35
153	Ice-templated poly(vinylidene fluoride) ferroelectrets. Soft Matter, 2019, 15, 825-832.	1.2	35
154	Hexagonal boron nitride nanosheets doped pyroelectric ceramic composite for high-performance thermal energy harvesting. Nano Energy, 2019, 60, 144-152.	8.2	34
155	Processing and characterisation of various mixed oxide and perovskite-based pigments for high temperature ceramic colouring application. Journal of Alloys and Compounds, 2008, 461, 77-84.	2.8	33
156	Ultrasonic Pulse Velocity Evaluation of Cementitious Materials. , 0, , .		33
157	A novel pyroelectric generator utilising naturally driven temperature fluctuations from oscillating heat pipes for waste heat recovery and thermal energy harvesting. Journal of Applied Physics, 2016, 120, .	1.1	33
158	Inexpensive and fast pathogenic bacteria screening using field-effect transistors. Biosensors and Bioelectronics, 2016, 85, 103-109.	5.3	33
159	Effect of particle size on the formation of Ti2AlC using combustion synthesis. Ceramics International, 2016, 42, 4150-4157.	2.3	33
160	Responses of bistable piezoelectric-composite energy harvester by means of recurrences. Mechanical Systems and Signal Processing, 2016, 76-77, 823-832.	4.4	33
161	Structurally tuned lead magnesium titanate perovskite as a photoelectrode material for enhanced photoelectrochemical water splitting. Chemical Engineering Journal, 2017, 309, 682-690.	6.6	33
162	Fabrication of high-aspect ratio GaN nanostructures for advanced photonic devices. Microelectronic Engineering, 2016, 153, 132-136.	1.1	32

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163	Harnessing Plasticity in an Amineâ€Borane as a Piezoelectric and Pyroelectric Flexible Film. Angewandte Chemie - International Edition, 2020, 59, 7808-7812.	7.2	32
164	Effect of bias conditions on pressure sensors based on AlGaN/GaN High Electron Mobility Transistor. Sensors and Actuators A: Physical, 2013, 194, 247-251.	2.0	31
165	Fabrication of low-to-zero shrinkage reaction-bonded mullite composites. Journal of the European Ceramic Society, 1996, 16, 255-260.	2.8	30
166	Anodised TiO2nano-tubes: voltage ramp influence on the nano-structured oxide and investigation of phase changes promoted by thermal treatments. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1814-1819.	0.8	30
167	Formation of a porous alumina electrode as a low-cost CMOS neuronal interface. Sensors and Actuators B: Chemical, 2009, 138, 296-303.	4.0	30
168	Bistable energy harvesting backpack: Design, modeling, and experiments. Energy Conversion and Management, 2022, 259, 115441.	4.4	30
169	High-performance 1â€“3-type composites based on (1 â^'x)Pb(A1/3Nb2/3)O3â€“xPbTiO3single crystals (A= Mg,) Tj ETQq1 1 0.78431	1.3	29
170	Modeling and optimization of bistable composite laminates for piezoelectric actuation. Journal of Intelligent Material Systems and Structures, 2011, 22, 2181-2191.	1.4	29
171	Flexible ferroelectric wearable devices for medical applications. IScience, 2021, 24, 101987.	1.9	29
172	Shear properties of a carbon/carbon composite with non-woven felt and continuous fibre reinforcement layers. Carbon, 2007, 45, 2178-2187.	5.4	28
173	Flexible piezoelectric transducer for ultrasonic inspection of non-planar components. Ultrasonics, 2008, 48, 367-375.	2.1	28
174	Dielectric spectroscopy and ferroelectric properties of magnesium modified bismuth titanate ceramics. Journal of Alloys and Compounds, 2016, 688, 27-36.	2.8	28
175	Effect of Zr/Ti ratio on microstructure and electrical properties of pyroelectric ceramics for energy harvesting applications. Journal of Alloys and Compounds, 2017, 710, 869-874.	2.8	28
176	Enhanced Power Generation from the Interaction between Sweat and Electrodes for Human Health Monitoring. ACS Energy Letters, 2020, 5, 3708-3717.	8.8	28
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