James Bowen

List of Publications by Year
in descending order

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103 papers	1,922 citations	279798 23 h-index	315739 38 g-index
103 all docs	103 docs citations	103 times ranked	3447 citing authors

#	Article	IF	Citations
1	Î±-Helical peptides on plasma-treated polymers promote ciliation of airway epithelial cells. Materials Science and Engineering C, 2021, 122, 111935.	7.3	2
2	The Effects of Corrosion, Fatigue, and Corrosion-fatigue of Multilayer Coated Polyesters for Flexible Electronics Applications. E-Journal of Surface Science and Nanotechnology, 2021, 19, 61-68.	0.4	0
3	Investigating the microwave heating behaviour of lunar soil simulant JSC-1A at different input powers. Scientific Reports, 2021, 11, 2133.	3.3	21
4	Ecological drivers of eggshell wettability in birds. Journal of the Royal Society Interface, 2021, 18, 20210488.	3.4	9
5	Efficient hole transport material formed by atmospheric pressure plasma functionalization of Spiro-OMeTAD. Materials Today Chemistry, 2020, 17, 100321.	3.5	6
6	Polydopamine Linking Substrate for AMPs: Characterisation and Stability on Ti6Al4V. Materials, 2020, 13, 3714.	2.9	10
7	Closed-Form Expressions for Contact Angle Hysteresis: Capillary Bridges between Parallel Platens. Colloids and Interfaces, 2020, 4, 13.	2.1	5
8	Selective modification of Ti6Al4V surfaces for biomedical applications. RSC Advances, 2020, 10, 17642-17652.	3.6	13
9	Engineering work function of graphene oxide from p to n type using a low power atmospheric pressure plasma jet. Physical Chemistry Chemical Physics, 2020, 22, 7685-7698.	2.8	26
10	Host macrophage response to injectable hydrogels derived from ECM and Î±-helical peptides. Acta Biomaterialia, 2020, 111, 141-152.	8.3	24
11	Precise Generation of Selective Surface-Confined Glycoprotein Recognition Sites. ACS Applied Bio Materials, 2019, 2, 2617-2623.	4.6	14
12	Improving cellular migration in tissue-engineered laryngeal scaffolds. Journal of Laryngology and Otology, 2019, 133, 135-148.	0.8	6
13	The stability and degradation of PECVD fluoropolymer nanofilms. Polymer Degradation and Stability, 2019, 160, 203-209.	5.8	5
14	Suitability of developed composite materials for meniscal replacement: Mechanical, friction and wear evaluation. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 217-226.	3.1	5
15	Twisting fatigue in multilayer films of Ag-alloy with indium tin oxide on polyethylene terephthalate for flexible electronics devices. Thin Solid Films, 2018, 645, 241-252.	1.8	13
16	A rare mineral, vaterite, acts as a shock absorber in the eggshell of a communally nesting bird. Ibis, 2018, 160, 173-178.	1.9	18
17	Mechanical Characterization of Torsional Micropaddles Using Atomic Force Microscopy. Journal of Sensors, 2018, 2018, 1-7.	1.1	1
18	On the electrical conductivity of alginate hydrogels. International Journal of Energy Production and Management, 2018, 5, 293-301.	3.7	32

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19	Plasma Jet Printing and in Situ Reduction of Highly Acidic Graphene Oxide. ACS Nano, 2018, 12, 5473-5481.	14.6	34
20	Silsesquioxane polymer as a potential scaffold for laryngeal reconstruction. Materials Science and Engineering C, 2018, 92, 565-574.	7.3	11
21	Development of MIL-101(Cr)/GrO composites for adsorption heat pump applications. Microporous and Mesoporous Materials, 2017, 244, 180-191.	4.4	54
22	The formation of a nanohybrid shish-kebab (NHSK) structure in melt-processed composites of poly(ethylene terephthalate) (PET) andÂmulti-walled carbon nanotubes (MWCNTs). Polymer, 2017, 117, 208-219.	3.8	24
23	Full deflection profile calculation and Youngâ€™s modulus optimisation for engineered high performance materials. Scientific Reports, 2017, 7, 46190.	3.3	12
24	Selecting suitable image dimensions for scanning probe microscopy. Surfaces and Interfaces, 2017, 9, 133-142.	3.0	4
25	Liquid-like behaviour of gold nanowire bridges. Applied Physics Letters, 2017, 111, 073104.	3.3	2
26	Functionalisation of Ti6Al4V and hydroxyapatite surfaces with combined peptides based on KKLPDA and EEEEEEEE peptides. Colloids and Surfaces B: Biointerfaces, 2017, 160, 154-160.	5.0	20
27	Facile synthesis of novel hybrid POSS biomolecules via â€œClickâ€•reactions. RSC Advances, 2017, 7, 37474-37477.	3.6	5
28	Room temperature thermally evaporated thin Au film on Si suitable for application of thiol self-assembled monolayers in micro/nano-electro-mechanical-systems sensors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 041514.	2.1	15
29	Confirmation of a nanohybrid shishâ€kebab (NHSK) structure in composites of PET and MWCNTs. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 132-137.	2.1	10
30	Microparticle surface layering through dry coating: impact of moisture content and process parameters on the properties of orally disintegrating tablets. Journal of Pharmacy and Pharmacology, 2017, 69, 807-822.	2.4	1
31	Monitoring biomineralization of biomaterials inÂvivo. , 2017, , 81-110.		0
32	Anisotropic dehydration of hydrogel surfaces. Progress in Biomaterials, 2017, 6, 157-164.	4.5	4
33	Gallium (III)-Metalloporphyrin Grafted Magnetite Nanoparticles for Fluoride Removal from Aqueous Solutions. Natural Products Chemistry & Research, 2017, 05, .	0.2	5
34	An investigation into the effects of excipient particle size, blending techniques and processing parameters on the homogeneity and content uniformity of a blend containing low-dose model drug. PLoS ONE, 2017, 12, e0178772.	2.5	56
35	Friction and wear of human hair fibres. Surface Topography: Metrology and Properties, 2016, 4, 024008.	1.6	5
36	Development and Evaluation of a Novel Intranasal Spray for the Delivery of Amantadine. Journal of Pharmaceutical Sciences, 2016, 105, 1209-1220.	3.3	54

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37	Spin-on-carbon hard masks utilising fullerene derivatives. , 2016, , .		2
38	Adhesion between silica surfaces due to hydrogen bonding. Surface Topography: Metrology and Properties, 2016, 4, 034001.	1.6	3
39	Soluble silicon patterns and templates: calcium phosphate nanocrystal deposition in collagen type 1. RSC Advances, 2016, 6, 99809-99815.	3.6	4
40	Electrospray synthesis and properties of hierarchically structured PLGA TIPS microspheres for use as controlled release technologies. Journal of Colloid and Interface Science, 2016, 467, 220-229.	9.4	46
41	Adhesion of Pseudomonas fluorescens biofilms to glass, stainless steel and cellulose. Biotechnology Letters, 2016, 38, 787-792.	2.2	5
42	On the origin and magnitude of surface stresses due to metal nanofilms. Nanoscale, 2016, 8, 4245-4251.	5.6	4
43	A Holistic Multi Evidence Approach to Study the Fragmentation Behaviour of Crystalline Mannitol. Scientific Reports, 2015, 5, 16352.	3.3	12
44	Multiscale patterning of nanocomposite polyelectrolyte/nanoparticle films using inkjet printing and AFM scratching. Materials Research Express, 2015, 2, 065301.	1.6	2
45	Graphene-Based Ultrathin Flat Lenses. ACS Photonics, 2015, 2, 200-207.	6.6	70
46	Assessment of non-contacting optical methods to measure wear and surface roughness in ceramic total disc replacements. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 245-254.	1.8	10
47	Effects of current on early stages of focused ion beam nano-machining. Materials Research Express, 2015, 2, 055005.	1.6	8
48	Mechanical properties of amorphous indiumâ€“galliumâ€“zinc oxide thin films on compliant substrates for flexible optoelectronic devices. Thin Solid Films, 2015, 594, 197-204.	1.8	26
49	Nanoscale crystallinity modulates cell proliferation on plasma sprayed surfaces. Materials Science and Engineering C, 2015, 48, 5-10.	7.3	15
50	Experimental and Numerical Investigation of the Effect of Pellet Size on the Adsorption Characteristics of Activated Carbon/Ethanol. Energy Procedia, 2014, 61, 2327-2330.	1.8	17
51	Adhesion of perfume-filled microcapsules to model fabric surfaces. Journal of Microencapsulation, 2014, 31, 430-439.	2.8	8
52	Development of a synovial fluid analogue with bio-relevant rheology for wear testing of orthopaedic implants. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 32, 177-184.	3.1	23
53	Mechanical properties of alginate hydrogels manufactured using external gelation. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 36, 135-142.	3.1	149
54	A novel method for monitoring mineralisation in hydrogels at the engineered hardâ€“soft tissue interface. Biomaterials Science, 2014, 2, 41-51.	5.4	17

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55	In situ-forming robust chitosan-poly(ethylene glycol) hydrogels prepared by copper-free azideâ€“alkyne click reaction for tissue engineering. Biomaterials Science, 2014, 2, 167-175.	5.4	75
56	Relationship between single and bulk mechanical properties for zeolite ZSM5 spray-dried particles. Particuology, 2014, 14, 130-138.	3.6	24
57	The effects of dwell time on focused ion beam machining of silicon. Microelectronic Engineering, 2014, 121, 24-26.	2.4	10
58	Transient bioimpedance monitoring of mechanotransduction in artificial tissue during indentation. Journal of Electrical Bioimpedance, 2014, 5, 55-73.	0.9	6
59	Different formation kinetics and photoisomerization behavior of self-assembled monolayers of thiols and dithiolanes bearing azobenzene moieties. Physical Chemistry Chemical Physics, 2013, 15, 11014.	2.8	19
60	Controlling thin liquid film viscosity via modification of substrate surface chemistry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 418, 112-116.	4.7	5
61	Spherical indentation analysis of stress relaxation for thin film viscoelastic materials. Rheologica Acta, 2013, 52, 695-706.	2.4	14
62	The Effect of Aperture Size on Gigaseal Formation. Biophysical Journal, 2013, 104, 673a.	0.5	0
63	Controlling gold nanoparticle assembly on electron beam-reduced nitrophenyl self-assembled monolayers via electron dose. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 433, 181-190.	4.7	5
64	Structural changes to resorbable calcium phosphate bioceramic aged in vitro. Colloids and Surfaces B: Biointerfaces, 2013, 111, 469-478.	5.0	11
65	Nitrogen plasma surface modification enhances cellular compatibility of aluminosilicate glass. Materials Letters, 2013, 111, 225-229.	2.6	9
66	A novel water-based cathode ink formulation. International Journal of Hydrogen Energy, 2013, 38, 1731-1736.	7.1	12
67	Measurement of the adhesion between single melamine-formaldehyde resin microparticles and a flat fabric surface using AFM. Journal of Adhesion Science and Technology, 2013, 27, 973-987.	2.6	3
68	Active screen plasma nitriding enhances cell attachment to polymer surfaces. Applied Surface Science, 2013, 273, 787-798.	6.1	25
69	Optimised determination of viscoelastic properties using compliant measurement systems. Soft Matter, 2013, 9, 5581.	2.7	8
70	Investigation of techniques for the measurement of articular cartilage surface roughness. Micron, 2013, 44, 179-184.	2.2	42
71	The effect of temperature on adhesion forces between surfaces and model foods containing whey protein and sugar. Journal of Food Engineering, 2013, 118, 371-379.	5.2	24
72	Degradation of polymer films. Soft Matter, 2013, 9, 344-358.	2.7	39

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73	Rapid manufacture of monolithic micro-actuated forceps inspired by echinoderm pedicellariae. Bioinspiration and Biomimetics, 2012, 7, 044001.	2.9	4
74	Dielectric properties of pulsed-laser deposited indium tin oxide thin films. Thin Solid Films, 2012, 524, 249-256.	1.8	10
75	Direct e-beam lithography of PDMS. Microelectronic Engineering, 2012, 97, 34-37.	2.4	23
76	Adhesion of Alumina Surfaces through Confined Water Layers Containing Various Molecules. Langmuir, 2012, 28, 4648-4653.	3.5	7
77	A Dynamic Model of the Jump-To Phenomenon During AFM Analysis. Langmuir, 2012, 28, 17273-17286.	3.5	5
78	Characterisation of spin coated engineered Escherichia coli biofilms using atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2012, 89, 152-160.	5.0	18
79	Manufacturing of agarose-based chromatographic adsorbents â€“ Effect of ionic strength and cooling conditions on particle structure and mechanical strength. Journal of Colloid and Interface Science, 2012, 367, 153-160.	9.4	13
80	Prediction of Inter-particle Adhesion Force from Surface Energy and Surface Roughness. Journal of Adhesion Science and Technology, 2011, 25, 367-384.	2.6	79
81	Application of Colloid Probe Atomic Force Microscopy to the Adhesion of Thin Films of Viscous and Viscoelastic Silicone Fluids. Langmuir, 2011, 27, 11489-11500.	3.5	14
82	Fabrication and analysis of cylindrical resin AFM microcantilevers. Ultramicroscopy, 2011, 111, 1214-1223.	1.9	2
83	Residual stress analysis of all perovskite oxide cantilevers. Journal of Electroceramics, 2011, 27, 176-188.	2.0	8
84	Engineering Biofilms for Biocatalysis. ChemBioChem, 2011, 12, 1391-1395.	2.6	38
85	Micro squeeze flow rheometer for high frequency analysis of nano-litre volumes of viscoelastic fluid. Microelectronic Engineering, 2011, 88, 1726-1729.	2.4	4
86	A miniature flow sensor fabricated by micro-stereolithography employing a magnetite/acrylic nanocomposite resin. Sensors and Actuators A: Physical, 2011, 168, 66-71.	4.1	85
87	Characteristics and durability of fluoropolymer thin films. Polymer Degradation and Stability, 2011, 96, 561-565.	5.8	7
88	New Multilayer Architectures for Piezoelectric BaTiO3 Cantilever Systems. Materials Research Society Symposia Proceedings, 2011, 1325, 111.	0.1	3
89	Comparing physicochemical properties of printed and hand cast biocements designed for ligament replacement. Advances in Applied Ceramics, 2011, 110, 162-167.	1.1	14
90	Principles of a micro squeeze flow rheometer for the analysis of extremely small volumes of liquid. Journal of Micromechanics and Microengineering, 2011, 21, 045030.	2.6	3

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91	Nanodots induced columnar growth of YBa2Cu3O films. Physica C: Superconductivity and Its Applications, 2010, 470, S234-S236.	1.2	11
92	Matching the nano- to the meso-scale: Measuring depositâ€“surface interactions with atomic force microscopy and micromanipulation. Food and Bioproducts Processing, 2010, 88, 341-348.	3.6	27
93	Pinning potential in thick PrBa2Cu3O /YBa2Cu3O7â^' quasi-multilayers. Physica C: Superconductivity and Its Applications, 2010, 470, 55-60.	1.2	10
94	Effect of plasma surface modification on the biocompatibility of UHMWPE. Biomedical Materials (Bristol), 2010, 5, 054102.	3.3	27
95	On the calibration of rectangular atomic force microscope cantilevers modified by particle attachment and lamination. Measurement Science and Technology, 2010, 21, 115106.	2.6	19
96	The adhesive properties of pyridine-terminated self-assembled monolayers. Thin Solid Films, 2009, 517, 3806-3812.	1.8	3
97	Microstructureâ€“Property relationships in thin film ITO. Thin Solid Films, 2009, 518, 1140-1144.	1.8	13
98	Physicochemical Properties of (Ethylene Glycol)-Containing Self-Assembled Monolayers Relevant for Protein and Algal Cell Resistance. Langmuir, 2009, 25, 10077-10082.	3.5	129
99	The pH-dependent adhesion of nanoparticles to self-assembled monolayers on gold. Thin Solid Films, 2008, 516, 2987-2999.	1.8	9
100	A micromagnetoflowcell for microfluidic measurements. Microelectronic Engineering, 2008, 85, 1062-1065.	2.4	1
101	AFM characterisation of silicon-on-insulator push-in plates for Casimir force measurements. Micro and Nano Letters, 2008, 3, 7.	1.3	0
102	Fabrication of a nanoparticle gradient substrate by thermochemical manipulation of an ester functionalized SAM. Journal of Materials Chemistry, 2007, 17, 5097.	6.7	13
103	The influence of surface lubricity on the adhesion of Navicula perminuta and Ulva linza to alkanethiol self-assembled monolayers. Journal of the Royal Society Interface, 2007, 4, 473-477.	3.4	45