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	Mechanical properties of alginate hydrogels manufactured using external gelation. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 36, 135-142.	3.1	149
2	Physicochemical Properties of (Ethylene Glycol)-Containing Self-Assembled Monolayers Relevant for Protein and Algal Cell Resistance. Langmuir, 2009, 25, 10077-10082.	3.5	129
3	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
4	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
5	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
6	Graphene-Based Ultrathin Flat Lenses. ACS Photonics, 2015, 2, 200-207.	6.6	70
7	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
8	Development and Evaluation of a Novel Intranasal Spray for the Delivery of Amantadine. Journal of Pharmaceutical Sciences, 2016, 105, 1209-1220.	3.3	54
9	Development of MIL-101(Cr)/GrO composites for adsorption heat pump applications. Microporous and Mesoporous Materials, 2017, 244, 180-191.	4.4	54
10	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
11	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
12	Investigation of techniques for the measurement of articular cartilage surface roughness. Micron, 2013, 44, 179-184.	2.2	42
13	Degradation of polymer films. Soft Matter, 2013, 9, 344-358.	2.7	39
14	Engineering Biofilms for Biocatalysis. ChemBioChem, 2011, 12, 1391-1395.	2.6	38
15	Plasma Jet Printing and in Situ Reduction of Highly Acidic Graphene Oxide. ACS Nano, 2018, 12, 5473-5481.	14.6	34
16	On the electrical conductivity of alginate hydrogels. International Journal of Energy Production and Management, 2018, 5, 293-301.	3.7	32
17	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
18	Effect of plasma surface modification on the biocompatibility of UHMWPE. Biomedical Materials (Bristol), 2010, 5, 054102.	3.3	27

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19	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
20	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
21	Active screen plasma nitriding enhances cell attachment to polymer surfaces. Applied Surface Science, 2013, 273, 787-798.	6.1	25
22	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
23	Relationship between single and bulk mechanical properties for zeolite ZSM5 spray-dried particles. Particuology, 2014, 14, 130-138.	3.6	24
24	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
25	Host macrophage response to injectable hydrogels derived from ECM and Î±-helical peptides. Acta Biomaterialia, 2020, 111, 141-152.	8.3	24
26	Direct e-beam lithography of PDMS. Microelectronic Engineering, 2012, 97, 34-37.	2.4	23
27	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
28	Investigating the microwave heating behaviour of lunar soil simulant JSC-1A at different input powers. Scientific Reports, 2021, 11, 2133.	3.3	21
29	Functionalisation of Ti6Al4V and hydroxyapatite surfaces with combined peptides based on KKLPDA and EEEEEEE peptides. Colloids and Surfaces B: Biointerfaces, 2017, 160, 154-160.	5.0	20
30	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
31	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
32	Characterisation of spin coated engineered Escherichia coli biofilms using atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2012, 89, 152-160.	5.0	18
33	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
34	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
35	A novel method for monitoring mineralisation in hydrogels at the engineered hardâ€“soft tissue interface. Biomaterials Science, 2014, 2, 41-51.	5.4	17
36	Nanoscale crystallinity modulates cell proliferation on plasma sprayed surfaces. Materials Science and Engineering C, 2015, 48, 5-10.	7.3	15

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37	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
38	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
39	Comparing physicochemical properties of printed and hand cast biocements designed for ligament replacement. Advances in Applied Ceramics, 2011, 110, 162-167.	1.1	14
40	Spherical indentation analysis of stress relaxation for thin film viscoelastic materials. Rheologica Acta, 2013, 52, 695-706.	2.4	14
41	Precise Generation of Selective Surface-Confined Glycoprotein Recognition Sites. ACS Applied Bio Materials, 2019, 2, 2617-2623.	4.6	14
42	Fabrication of a nanoparticle gradient substrate by thermochemical manipulation of an ester functionalized SAM. Journal of Materials Chemistry, 2007, 17, 5097.	6.7	13
43	Microstructureâ€“Property relationships in thin film ITO. Thin Solid Films, 2009, 518, 1140-1144.	1.8	13
44	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
45	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
46	Selective modification of Ti6Al4V surfaces for biomedical applications. RSC Advances, 2020, 10, 17642-17652.	3.6	13
47	A novel water-based cathode ink formulation. International Journal of Hydrogen Energy, 2013, 38, 1731-1736.	7.1	12
48	A Holistic Multi Evidence Approach to Study the Fragmentation Behaviour of Crystalline Mannitol. Scientific Reports, 2015, 5, 16352.	3.3	12
49	Full deflection profile calculation and Youngâ€™s modulus optimisation for engineered high performance materials. Scientific Reports, 2017, 7, 46190.	3.3	12
50	Nanodots induced columnar growth of YBa2Cu3O films. Physica C: Superconductivity and Its Applications, 2010, 470, S234-S236.	1.2	11
51	Structural changes to resorbable calcium phosphate bioceramic aged in vitro. Colloids and Surfaces B: Biointerfaces, 2013, 111, 469-478.	5.0	11
52	Silsesquioxane polymer as a potential scaffold for laryngeal reconstruction. Materials Science and Engineering C, 2018, 92, 565-574.	7.3	11
53	Pinning potential in thick PrBa2Cu3O /YBa2Cu3O7â^' quasi-multilayers. Physica C: Superconductivity and Its Applications, 2010, 470, 55-60.	1.2	10
54	Dielectric properties of pulsed-laser deposited indium tin oxide thin films. Thin Solid Films, 2012, 524, 249-256.	1.8	10

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55	The effects of dwell time on focused ion beam machining of silicon. Microelectronic Engineering, 2014, 121, 24-26.	2.4	10
56	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
57	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
58	Polydopamine Linking Substrate for AMPs: Characterisation and Stability on Ti6Al4V. Materials, 2020, 13, 3714.	2.9	10
59	The pH-dependent adhesion of nanoparticles to self-assembled monolayers on gold. Thin Solid Films, 2008, 516, 2987-2999.	1.8	9
60	Nitrogen plasma surface modification enhances cellular compatibility of aluminosilicate glass. Materials Letters, 2013, 111, 225-229.	2.6	9
61	Ecological drivers of eggshell wettability in birds. Journal of the Royal Society Interface, 2021, 18, 20210488.	3.4	9
62	Residual stress analysis of all perovskite oxide cantilevers. Journal of Electroceramics, 2011, 27, 176-188.	2.0	8
63	Optimised determination of viscoelastic properties using compliant measurement systems. Soft Matter, 2013, 9, 5581.	2.7	8
64	Adhesion of perfume-filled microcapsules to model fabric surfaces. Journal of Microencapsulation, 2014, 31, 430-439.	2.8	8
65	Effects of current on early stages of focused ion beam nano-machining. Materials Research Express, 2015, 2, 055005.	1.6	8
66	Characteristics and durability of fluoropolymer thin films. Polymer Degradation and Stability, 2011, 96, 561-565.	5.8	7
67	Adhesion of Alumina Surfaces through Confined Water Layers Containing Various Molecules. Langmuir, 2012, 28, 4648-4653.	3.5	7
68	Improving cellular migration in tissue-engineered laryngeal scaffolds. Journal of Laryngology and Otology, 2019, 133, 135-148.	0.8	6
69	Efficient hole transport material formed by atmospheric pressure plasma functionalization of Spiro-OMeTAD. Materials Today Chemistry, 2020, 17, 100321.	3.5	6
70	Transient bioimpedance monitoring of mechanotransduction in artificial tissue during indentation. Journal of Electrical Bioimpedance, 2014, 5, 55-73.	0.9	6
71	A Dynamic Model of the Jump-To Phenomenon During AFM Analysis. Langmuir, 2012, 28, 17273-17286.	3.5	5
72	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

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73	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
74	Friction and wear of human hair fibres. Surface Topography: Metrology and Properties, 2016, 4, 024008.	1.6	5
75	Adhesion of Pseudomonas fluorescens biofilms to glass, stainless steel and cellulose. Biotechnology Letters, 2016, 38, 787-792.	2.2	5
76	Facile synthesis of novel hybrid POSS biomolecules via â€œClickâ€•reactions. RSC Advances, 2017, 7, 37474-37477.	3.6	5
77	Gallium (III)-Metalloporphyrin Grafted Magnetite Nanoparticles for Fluoride Removal from Aqueous Solutions. Natural Products Chemistry & Research, 2017, 05, .	0.2	5
78	The stability and degradation of PECVD fluoropolymer nanofilms. Polymer Degradation and Stability, 2019, 160, 203-209.	5.8	5
79	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
80	Closed-Form Expressions for Contact Angle Hysteresis: Capillary Bridges between Parallel Platens. Colloids and Interfaces, 2020, 4, 13.	2.1	5
81	Micro squeeze flow rheometer for high frequency analysis of nano-litre volumes of viscoelastic fluid. Microelectronic Engineering, 2011, 88, 1726-1729.	2.4	4
82	Rapid manufacture of monolithic micro-actuated forceps inspired by echinoderm pedicellariae. Bioinspiration and Biomimetics, 2012, 7, 044001.	2.9	4
83	Soluble silicon patterns and templates: calcium phosphate nanocrystal deposition in collagen type 1. RSC Advances, 2016, 6, 99809-99815.	3.6	4
84	On the origin and magnitude of surface stresses due to metal nanofilms. Nanoscale, 2016, 8, 4245-4251.	5.6	4
85	Selecting suitable image dimensions for scanning probe microscopy. Surfaces and Interfaces, 2017, 9, 133-142.	3.0	4
86	Anisotropic dehydration of hydrogel surfaces. Progress in Biomaterials, 2017, 6, 157-164.	4.5	4
87	The adhesive properties of pyridine-terminated self-assembled monolayers. Thin Solid Films, 2009, 517, 3806-3812.	1.8	3
88	New Multilayer Architectures for Piezoelectric BaTiO3 Cantilever Systems. Materials Research Society Symposia Proceedings, 2011, 1325, 111.	0.1	3
89	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
90	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

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91	Adhesion between silica surfaces due to hydrogen bonding. Surface Topography: Metrology and Properties, 2016, 4, 034001.	1.6	3
92	Fabrication and analysis of cylindrical resin AFM microcantilevers. Ultramicroscopy, 2011, 111, 1214-1223.	1.9	2
93	Multiscale patterning of nanocomposite polyelectrolyte/nanoparticle films using inkjet printing and AFM scratching. Materials Research Express, 2015, 2, 065301.	1.6	2
94	Spin-on-carbon hard masks utilising fullerene derivatives. , 2016, , .		2
95	Liquid-like behaviour of gold nanowire bridges. Applied Physics Letters, 2017, 111, 073104.	3.3	2
96	Î±-Helical peptides on plasma-treated polymers promote ciliation of airway epithelial cells. Materials Science and Engineering C, 2021, 122, 111935.	7.3	2
97	A micromagnetoflowcell for microfluidic measurements. Microelectronic Engineering, 2008, 85, 1062-1065.	2.4	1
98	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
99	Mechanical Characterization of Torsional Micropaddles Using Atomic Force Microscopy. Journal of Sensors, 2018, 2018, 1-7.	1.1	1
100	AFM characterisation of silicon-on-insulator push-in plates for Casimir force measurements. Micro and Nano Letters, 2008, 3, 7.	1.3	0
101	The Effect of Aperture Size on Gigaseal Formation. Biophysical Journal, 2013, 104, 673a.	0.5	0
102	Monitoring biomineralization of biomaterials inÂvivo. , 2017, , 81-110.		0
103	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