

Nicholas J Dunne

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115
papers

2,854
citations

29
h-index

49
g-index

120
ext. papers

3,501
ext. citations

5.5
avg, IF

5.64
L-index

#	Paper	IF	Citations
115	Production of Feather-Based Biopolymers as a Direct Alternative to Synthetic Plastics. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 486-494	8.3	1
114	Development of a Spray-Dried Formulation of Peptide-Dna Nanoparticles into a Dry Powder for Pulmonary Delivery Using Factorial Design.. <i>Pharmaceutical Research</i> , 2022 , 1	4.5	2
113	Translational Application of 3D Bioprinting for Cartilage Tissue Engineering. <i>Bioengineering</i> , 2021 , 8,	5.3	4
112	Rational design and characterisation of an amphipathic cell penetrating peptide for non-viral gene delivery. <i>International Journal of Pharmaceutics</i> , 2021 , 596, 120223	6.5	4
111	Advances in biofabrication techniques for collagen-based 3D in vitro culture models for breast cancer research. <i>Materials Science and Engineering C</i> , 2021 , 122, 111944	8.3	7
110	Feasibility of the use of poultry waste as polymer additives and implications for energy, cost and carbon. <i>Journal of Cleaner Production</i> , 2021 , 291, 125948	10.3	13
109	Exploiting the anticancer effects of a nitrogen bisphosphonate nanomedicine for glioblastoma multiforme. <i>Journal of Nanobiotechnology</i> , 2021 , 19, 127	9.4	1
108	Rational design and characterisation of a linear cell penetrating peptide for non-viral gene delivery. <i>Journal of Controlled Release</i> , 2021 , 330, 1288-1299	11.7	13
107	Influence of preoperative femoral orientation on radiographic measures of femoral head height in total hip replacement. <i>Clinical Biomechanics</i> , 2021 , 81, 105247	2.2	3
106	Nanoparticles beyond the blood-brain barrier for glioblastoma 2021 , 707-747		
105	Advanced G-MPS-PMMA Bone Cements: Influence of Graphene Silanisation on Fatigue Performance, Thermal Properties and Biocompatibility. <i>Nanomaterials</i> , 2021 , 11,	5.4	1
104	Hydroxyapatite sonosensitization of ultrasound-triggered, thermally responsive hydrogels: An on-demand delivery system for bone repair applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021 , 109, 1622-1633	3.5	1
103	Ethical aspects of the biologicalisation of manufacturing. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2021 , 34, 178-185	3.4	0
102	Development and optimisation of extruded bio-based polymers from poultry feathers. <i>European Polymer Journal</i> , 2021 , 158, 110678	5.2	4
101	Improving the Intercellular Uptake and Osteogenic Potency of Calcium Phosphate via Nanocomplexation with the RALA Peptide. <i>Nanomaterials</i> , 2020 , 10,	5.4	2
100	Improved osteogenic differentiation of human amniotic mesenchymal stem cells on gradient nanostructured Ti surface. <i>Journal of Biomedical Materials Research - Part A</i> , 2020 , 108, 1824-1833	5.4	11
99	Collagen/GAG scaffolds activated by RALA-siMMP-9 complexes with potential for improved diabetic foot ulcer healing. <i>Materials Science and Engineering C</i> , 2020 , 114, 111022	8.3	7

98	Electrospinning of natural polymers for the production of nanofibres for wound healing applications. <i>Materials Science and Engineering C</i> , 2020 , 114, 110994	8.3	66
97	Synthesis and Evaluation of a Thermoresponsive Degradable Chitosan-Grafted PNIPAAm Hydrogel as a "Smart" Gene Delivery System. <i>Materials</i> , 2020 , 13,	3.5	13
96	Calcium Phosphate Nanoparticles-Based Systems for RNAi Delivery: Applications in Bone Tissue Regeneration. <i>Nanomaterials</i> , 2020 , 10,	5.4	22
95	Incorporation of poultry eggshell and litter ash as high loading polymer fillers in polypropylene. <i>Composites Part C: Open Access</i> , 2020 , 3, 100080	1.6	8
94	Advances in Biodegradable 3D Printed Scaffolds with Carbon-Based Nanomaterials for Bone Regeneration. <i>Materials</i> , 2020 , 13,	3.5	11
93	Applications of materials for dural reconstruction in pre-clinical and clinical studies: Advantages and drawbacks, efficacy, and selections. <i>Materials Science and Engineering C</i> , 2020 , 117, 111326	8.3	11
92	Binder jetting additive manufacturing of hydroxyapatite powders: Effects of adhesives on geometrical accuracy and green compressive strength. <i>Additive Manufacturing</i> , 2020 , 36, 101645	6.1	8
91	Biomechanical studies on biomaterial degradation and co-cultured cells: mechanisms, potential applications, challenges and prospects. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 7439-7459	7.3	23
90	Multi-objective optimisation of material properties and strut geometry for poly(L-lactic acid) coronary stents using response surface methodology. <i>PLoS ONE</i> , 2019 , 14, e0218768	3.7	11
89	Incorporation of multi-walled carbon nanotubes to PMMA bone cement improves cytocompatibility and osseointegration. <i>Materials Science and Engineering C</i> , 2019 , 103, 109823	8.3	19
88	Characterisation and constitutive modelling of biaxially stretched poly(L-lactic acid) sheet for application in coronary stents. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 97, 346-354	4.4	5
87	Emerging areas of bone repair materials 2019 , 411-446		2
86	Pore-forming bioinks to enable spatio-temporally defined gene delivery in bioprinted tissues. <i>Journal of Controlled Release</i> , 2019 , 301, 13-27	11.7	50
85	Peptide-modified bone repair materials: Factors influencing osteogenic activity. <i>Journal of Biomedical Materials Research - Part A</i> , 2019 , 107, 1491-1512	5.4	10
84	Patient positioning and cup orientation during total hip arthroplasty: assessment of current UK practice. <i>HIP International</i> , 2019 , 29, 89-95	1.7	8
83	Nanocomposite-coated porous templates for engineered bone scaffolds: a parametric study of layer-by-layer assembly conditions. <i>Biomedical Materials (Bristol)</i> , 2019 , 14, 065008	3.5	3
82	DNA vaccination via RALA nanoparticles in a microneedle delivery system induces a potent immune response against the endogenous prostate cancer stem cell antigen. <i>Acta Biomaterialia</i> , 2019 , 96, 480-490	10.8	36
81	Graphene and graphene oxide functionalisation with silanes for advanced dispersion and reinforcement of PMMA-based bone cements. <i>Materials Science and Engineering C</i> , 2019 , 104, 109946	8.3	23

80	Calcium Phosphate Nanoparticles for Therapeutic Applications in Bone Regeneration. <i>Nanomaterials</i> , 2019 , 9,	5.4	53
79	Delivery of RALA/siFKBPL nanoparticles via electrospun bilayer nanofibres: An innovative angiogenic therapy for wound repair. <i>Journal of Controlled Release</i> , 2019 , 316, 53-65	11.7	26
78	Applications of Carbon Nanotubes in Bone Tissue Regeneration and Engineering: Superiority, Concerns, Current Advancements, and Prospects. <i>Nanomaterials</i> , 2019 , 9,	5.4	55
77	Hypoxia mimicking hydrogels to regulate the fate of transplanted stem cells. <i>Acta Biomaterialia</i> , 2019 , 88, 314-324	10.8	16
76	Operative and radiographic acetabular component orientation in total hip replacement: Influence of pelvic orientation and surgical positioning technique. <i>Medical Engineering and Physics</i> , 2019 , 64, 7-14	2.4	2
75	Influence of alginate backbone on efficacy of thermo-responsive alginate-g-P(NIPAAm) hydrogel as a vehicle for sustained and controlled gene delivery. <i>Materials Science and Engineering C</i> , 2019 , 95, 409-424	8.3	29
74	DNA vaccination for cervical cancer: Strategic optimisation of RALA mediated gene delivery from a biodegradable microneedle system. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018 , 127, 288-297	5.7	40
73	Effect of microporosity on scaffolds for bone tissue engineering. <i>International Journal of Energy Production and Management</i> , 2018 , 5, 115-124	5.3	154
72	Effect of combined flexion and external rotation on measurements of the proximal femur from anteroposterior pelvic radiographs. <i>Orthopaedics and Traumatology: Surgery and Research</i> , 2018 , 104, 449-454	2.9	5
71	Composite cryogels for dual drug delivery and enhanced mechanical properties. <i>Polymer Composites</i> , 2018 , 39, E210-E220	3	11
70	Long-term hip loading in unilateral total hip replacement patients is no different between limbs or compared to healthy controls at similar walking speeds. <i>Journal of Biomechanics</i> , 2018 , 80, 8-15	2.9	8
69	Development of three-dimensional printing polymer-ceramic scaffolds with enhanced compressive properties and tuneable resorption. <i>Materials Science and Engineering C</i> , 2018 , 93, 975-986	8.3	23
68	Gene therapy with RALA/iNOS composite nanoparticles significantly enhances survival in a model of metastatic prostate cancer. <i>Cancer Nanotechnology</i> , 2018 , 9, 5	7.9	13
67	Processing-property relationships of biaxially stretched poly(L-lactic acid) sheet for application in coronary stents. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 86, 113-121	4.1	10
66	Influence de la flexion et de la rotation latérale combinées de la hanche sur les mensurations morphométriques du fémur proximal sur des radiographies de bassin de face. <i>Revue De Chirurgie Orthopedique Et Traumatologique</i> , 2018 , 104, 312	0	
65	Microneedles for Gene Therapy: Overcoming Extracellular and Intracellular Barriers 2018 , 129-175		
64	Effects of poly (ε-caprolactone) coating on the properties of three-dimensional printed porous structures. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 70, 68-83	4.1	16
63	RALA complexed BCP nanoparticle delivery to mesenchymal stem cells induces bone formation in tissue engineered constructs in vitro and in vivo. <i>Journal of Materials Chemistry B</i> , 2017 , 5, 1753-1764	7.3	16

62	Systemic RALA/iNOS Nanoparticles: A Potent Gene Therapy for Metastatic Breast Cancer Coupled as a Biomarker of Treatment. <i>Molecular Therapy - Nucleic Acids</i> , 2017 , 6, 249-258	10.7	14
61	Hierarchically Structured Electrospun Scaffolds with Chemically Conjugated Growth Factor for Ligament Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2017 , 23, 823-836	3.9	26
60	Graphene oxide versus graphene for optimisation of PMMA bone cement for orthopaedic applications. <i>Materials Science and Engineering C</i> , 2017 , 77, 1003-1011	8.3	63
59	MicroRNA as Therapeutic Targets for Chronic Wound Healing. <i>Molecular Therapy - Nucleic Acids</i> , 2017 , 8, 46-55	10.7	56
58	Mesenchymal stem cell fate following non-viral gene transfection strongly depends on the choice of delivery vector. <i>Acta Biomaterialia</i> , 2017 , 55, 226-238	10.8	50
57	Surrogate Outcome Measures of In Vitro Osteoclast Resorption of β -Tricalcium Phosphate. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1600947	10.1	7
56	DNA vaccination for cervical cancer; a novel technology platform of RALA mediated gene delivery via polymeric microneedles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2017 , 13, 921-932	6	66
55	Simple Radical Polymerization of Poly(Alginate-Graft-N-Isopropylacrylamide) Injectable Thermoresponsive Hydrogel with the Potential for Localized and Sustained Delivery of Stem Cells and Bioactive Molecules. <i>Macromolecular Bioscience</i> , 2017 , 17, 1700118	5.5	23
54	Critical review: Injectability of calcium phosphate pastes and cements. <i>Acta Biomaterialia</i> , 2017 , 50, 1-19	10.8	127
53	The Mechanical Properties of the Scaffolds Reinforced by Fibres or Tubes for Tissue Repair 2017 , 79-111		
52	Porous Materials with Tunable Structure and Mechanical Properties via Templated Layer-by-Layer Assembly. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 21968-73	9.5	13
51	Biocompatibility of calcium phosphate bone cement with optimised mechanical properties: an in vivo study. <i>Journal of Materials Science: Materials in Medicine</i> , 2016 , 27, 191	4.5	14
50	Development of TMTP-1 targeted designer biopolymers for gene delivery to prostate cancer. <i>International Journal of Pharmaceutics</i> , 2016 , 500, 144-53	6.5	10
49	MiRNA 34a: a therapeutic target for castration-resistant prostate cancer. <i>Expert Opinion on Therapeutic Targets</i> , 2016 , 20, 1075-85	6.4	10
48	Mechanical properties and cellular response of novel electrospun nanofibers for ligament tissue engineering: Effects of orientation and geometry. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 61, 258-270	4.1	72
47	Extent and mechanism of phase separation during the extrusion of calcium phosphate pastes. <i>Journal of Materials Science: Materials in Medicine</i> , 2016 , 27, 29	4.5	16
46	Biocompatibility of calcium phosphate bone cement with optimized mechanical properties. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2016 , 104, 308-15	3.5	21
45	Critical evaluation of pulse-echo ultrasonic test method for the determination of setting and mechanical properties of acrylic bone cement: influence of mixing technique. <i>Ultrasonics</i> , 2015 , 56, 279-86	3.5	3

44	Twinning anisotropy of tantalum during nanoindentation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 627, 249-261	5.3	46
43	Printability of calcium phosphate: calcium sulfate powders for the application of tissue engineered bone scaffolds using the 3D printing technique. <i>Materials Science and Engineering C</i> , 2014 , 38, 1-10	8.3	162
42	Carboxyl functionalised MWCNT/polymethyl methacrylate bone cement for orthopaedic applications. <i>Journal of Biomaterials Applications</i> , 2014 , 29, 209-221	2.9	18
41	Development and characterization of self-assembling nanoparticles using a bio-inspired amphipathic peptide for gene delivery. <i>Journal of Controlled Release</i> , 2014 , 189, 141-9	11.7	128
40	Chemical modification of multiwalled carbon nanotube with a bifunctional caged ligand for radioactive labelling. <i>Acta Materialia</i> , 2014 , 64, 54-61	8.4	12
39	Polymeric Scaffolds for Tissue Engineering. <i>International Journal of Polymer Science</i> , 2014 , 2014, 1-2	2.4	3
38	Investigating Approaches for Three-Dimensional Printing of Hydroxyapatite Scaffolds for Bone Regeneration. <i>Key Engineering Materials</i> , 2014 , 631, 306-311	0.4	7
37	Optimisation of a two-liquid component pre-filled acrylic bone cement system: a design of experiments approach to optimise cement final properties. <i>Journal of Materials Science: Materials in Medicine</i> , 2014 , 25, 2287-96	4.5	3
36	Experimental and computational approach investigating burst fracture augmentation using PMMA and calcium phosphate cements. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 751-62	4.7	16
35	Development of calcium phosphate cement for the augmentation of traumatically fractured porcine specimens using vertebroplasty. <i>Journal of Biomechanics</i> , 2013 , 46, 711-5	2.9	23
34	Effects of Heat Treatment on the Mechanical and Degradation Properties of 3D-Printed Calcium-Sulphate-Based Scaffolds. <i>ISRN Biomaterials</i> , 2013 , 2013, 1-10		19
33	Carbon Nanotubes in Acrylic Bone Cement. <i>Springer Series in Biomaterials Science and Engineering</i> , 2013 , 173-199	0.6	
32	Biomechanics of Vertebroplasty: Effect of Cement Viscosity on Mechanical Behaviour. <i>Key Engineering Materials</i> , 2013 , 587, 416-421	0.4	1
31	Development of a bovine collagen-apatitic calcium phosphate cement for potential fracture treatment through vertebroplasty. <i>Acta Biomaterialia</i> , 2012 , 8, 4043-52	10.8	34
30	Fatigue and biocompatibility properties of a poly(methyl methacrylate) bone cement with multi-walled carbon nanotubes. <i>Acta Biomaterialia</i> , 2012 , 8, 1201-12	10.8	62
29	Identification of a suitable sterilisation method for collagen derived from a marine Demosponge. <i>International Journal of Nano and Biomaterials</i> , 2012 , 4, 148	0.2	12
28	Hydrothermal synthesis of coccolith rich chalk to hydroxyapatite. <i>International Journal of Nano and Biomaterials</i> , 2012 , 4, 81	0.2	2
27	Review of patents on microneedle applicators. <i>Recent Patents on Drug Delivery and Formulation</i> , 2011 , 5, 11-23	1.4	45

26	Effect of MWCNT addition on the thermal and rheological properties of polymethyl methacrylate bone cement. <i>Carbon</i> , 2011 , 49, 2893-2904	10.4	36
25	Investigations on drop penetration and wetting characteristics of powder-liquid systems in relation to the mixing of acrylic bone cement. <i>International Journal of Nano and Biomaterials</i> , 2010 , 3, 20	0.2	3
24	Effect of vacuum mixing and manual pressurisation on residual strains in polymethyl methacrylate bone cement mantles. <i>International Journal of Nano and Biomaterials</i> , 2010 , 3, 49	0.2	
23	Influence of multiwall carbon nanotube functionality and loading on mechanical properties of PMMA/MWCNT bone cements. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 2287-92	4.5	35
22	Hydroxyapatite bone substitutes developed via replication of natural marine sponges. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 2255-61	4.5	46
21	Optimisation of the mechanical and handling properties of an injectable calcium phosphate cement. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 2299-305	4.5	25
20	Performance of calcium deficient hydroxyapatite-polyglycolic acid composites: an in vitro study. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 2263-70	4.5	14
19	Incorporation of multiwalled carbon nanotubes to acrylic based bone cements: effects on mechanical and thermal properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2010 , 3, 136-45	4.1	60
18	Real time monitoring of the polymerisation of PMMA bone cement using Raman spectroscopy. <i>Journal of Materials Science: Materials in Medicine</i> , 2009 , 20, 2427-31	4.5	9
17	In vitro testing of chitosan in gentamicin-loaded bone cement: no antimicrobial effect and reduced mechanical performance. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2008 , 79, 851-60	4.3	20
16	The influence of coating technology on the mechanical performance of montmorillonite nanoclay reinforced acrylic bone cement. <i>International Journal of Nano and Biomaterials</i> , 2008 , 1, 237	0.2	6
15	Incorporation of chitosan in acrylic bone cement: effect on antibiotic release, bacterial biofilm formation and mechanical properties. <i>Journal of Materials Science: Materials in Medicine</i> , 2008 , 19, 1609-15	4.5	20
14	In vitro study investigating the mechanical properties of acrylic bone cement containing calcium carbonate nanoparticles. <i>Journal of Materials Science: Materials in Medicine</i> , 2008 , 19, 3327-33	4.5	21
13	Evaluation of an accelerated aging medium for acrylic bone cement based on analysis of nanoindentation measurements on laboratory-prepared and retrieved specimens. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007 , 81, 544-50	3.5	6
12	Biofilm formation by bacteria isolated from retrieved failed prosthetic hip implants in an in vitro model of hip arthroplasty antibiotic prophylaxis. <i>Journal of Orthopaedic Research</i> , 2007 , 25, 2-10	3.8	57
11	In vitro study of the efficacy of acrylic bone cement loaded with supplementary amounts of gentamicin: effect on mechanical properties, antibiotic release, and biofilm formation. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2007 , 78, 774-85	4.3	76
10	Incorporation of montmorillonite nanoclay to acrylic bone cement: effect on mechanical properties and morphology. <i>International Journal of Nano and Biomaterials</i> , 2007 , 1, 138	0.2	4
9	Critical comparison of two methods for the determination of nanomechanical properties of a material: application to synthetic and natural biomaterials. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2006 , 78, 312-7	3.5	13

8	Development of operator independent bone cement vacuum mixing system for joint replacement surgery. <i>Plastics, Rubber and Composites</i> , 2006 , 35, 317-323	1.5	4
7	The relationship between porosity and fatigue characteristics of bone cements. <i>Biomaterials</i> , 2003 , 24, 239-45	15.6	92
6	Shrinkage stresses in bone cement. <i>Biomaterials</i> , 2003 , 24, 2933-40	15.6	63
5	Curing characteristics of acrylic bone cement. <i>Journal of Materials Science: Materials in Medicine</i> , 2002 , 13, 17-22	4.5	75
4	Influence of mixing techniques on the physical properties of acrylic bone cement. <i>Biomaterials</i> , 2001 , 22, 1819-26	15.6	83
3	Thermal characteristics of curing acrylic bone cement. <i>IRBM News</i> , 2001 , 22, 88-97		16
2	Bone cement mixing. Theatre staff's views and opinions. <i>Journal of Perioperative Practice</i> , 2000 , 10, 619-23		1
1	Poultry feather disulphide bond breakdown to enable bio-based polymer production. <i>Polymers From Renewable Resources</i> , 204124792110087	0.4	1