

Andres Diaz Lantada

List of Publications by Citations

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137
papers

1,183
citations

20
h-index

30
g-index

147
ext. papers

1,445
ext. citations

2.6
avg, IF

5.02
L-index

#	Paper	IF	Citations
137	Rapid prototyping for biomedical engineering: current capabilities and challenges. <i>Annual Review of Biomedical Engineering</i> , 2012 , 14, 73-96	12	151
136	Comparative study of auxetic geometries by means of computer-aided design and engineering. <i>Smart Materials and Structures</i> , 2012 , 21, 105004	3.4	96
135	Direct laser writing of auxetic structures: present capabilities and challenges. <i>Smart Materials and Structures</i> , 2014 , 23, 085033	3.4	52
134	Rapid prototyping of multi-scale biomedical microdevices by combining additive manufacturing technologies. <i>Biomedical Microdevices</i> , 2014 , 16, 617-27	3.7	41
133	Lithography-based ceramic manufacture (LCM) of auxetic structures: present capabilities and challenges. <i>Smart Materials and Structures</i> , 2016 , 25, 054015	3.4	41
132	Physical ageing of a PU-based shape memory polymer: Influence on their applicability to the development of medical devices. <i>Materials & Design</i> , 2009 , 30, 2431-2434		39
131	Novel system for bite-force sensing and monitoring based on magnetic near field communication. <i>Sensors</i> , 2012 , 12, 11544-58	3.8	37
130	Comparative study of potential pentamodal metamaterials inspired by Bravais lattices. <i>Smart Materials and Structures</i> , 2013 , 22, 115013	3.4	30
129	Free-Form Rapid Prototyped Porous PDMS Scaffolds Incorporating Growth Factors Promote Chondrogenesis. <i>Advances in Materials Science and Engineering</i> , 2014 , 2014, 1-10	1.5	29
128	Quantum tunnelling composites: Characterisation and modelling to promote their applications as sensors. <i>Sensors and Actuators A: Physical</i> , 2010 , 164, 46-57	3.9	26
127	Safe innovation: On medical device legislation in Europe and Africa. <i>Health Policy and Technology</i> , 2018 , 7, 156-165	4.8	24
126	Design and rapid prototyping of DLC coated fractal surfaces for tissue engineering applications. <i>Journal of Physics: Conference Series</i> , 2010 , 252, 012003	0.3	24
125	Systematic Development Strategy for Smart Devices Based on Shape-Memory Polymers. <i>Polymers</i> , 2017 , 9,	4.5	23
124	Fractals in tissue engineering: toward biomimetic cell-culture matrices, microsystems and microstructured implants. <i>Expert Review of Medical Devices</i> , 2013 , 10, 629-48	3.5	23
123	Intelligent structures based on the improved activation of shape memory polymers using Peltier cells. <i>Smart Materials and Structures</i> , 2010 , 19, 055022	3.4	23
122	Toward mass production of microtextured microdevices: linking rapid prototyping with microinjection molding. <i>International Journal of Advanced Manufacturing Technology</i> , 2015 , 76, 1011-1020	3.2	21
121	Tissue Engineering Using Novel Rapid Prototyped Diamond-Like Carbon Coated Scaffolds. <i>Plasma Processes and Polymers</i> , 2012 , 9, 98-107	3.4	21

120	Development of personalized annuloplasty rings: combination of CT images and CAD-CAM tools. <i>Annals of Biomedical Engineering</i> , 2010 , 38, 280-90	4.7	21
119	Analytical model for predicting the friction coefficient in point contacts with thermal elastohydrodynamic lubrication. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2011 , 225, 181-191	1.4	20
118	Micro-vascular shape-memory polymer actuators with complex geometries obtained by laser stereolithography. <i>Smart Materials and Structures</i> , 2016 , 25, 065018	3.4	20
117	Composite scaffolds for osteochondral repair obtained by combination of additive manufacturing, leaching processes and hMSC-CM functionalization. <i>Materials Science and Engineering C</i> , 2016 , 59, 218-227	8.3	19
116	Biofabrication strategies for creating microvascular complexity. <i>Biofabrication</i> , 2019 , 11, 032001	10.5	18
115	Models for predicting friction coefficient and parameters with influence in elastohydrodynamic lubrication. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2009 , 223, 949-958	1.4	18
114	Towards complete product development teaching employing combined CAD/CAM/AE technologies. <i>Computer Applications in Engineering Education</i> , 2010 , 18, 661-668	1.6	15
113	Deep reactive ion etching of auxetic structures: present capabilities and challenges. <i>Smart Materials and Structures</i> , 2014 , 23, 087001	3.4	14
112	3D Printed Structures Filled with Carbon Fibers and Functionalized with Mesenchymal Stem Cell Conditioned Media as In Vitro Cell Niches for Promoting Chondrogenesis. <i>Materials</i> , 2017 , 11,	3.5	13
111	Design and Performance Assessment of Innovative Eco-Efficient Support Structures for Additive Manufacturing by Photopolymerization. <i>Journal of Industrial Ecology</i> , 2017 , 21, S179-S190	7.2	13
110	Lotus-on-chip: computer-aided design and 3D direct laser writing of bioinspired surfaces for controlling the wettability of materials and devices. <i>Bioinspiration and Biomimetics</i> , 2017 , 12, 066004	2.6	13
109	Lithography-based additive manufacture of ceramic biodevices with design-controlled surface topographies. <i>International Journal of Advanced Manufacturing Technology</i> , 2017 , 88, 1547-1555	3.2	12
108	Auxetic tissue engineering scaffolds with nanometric features and resonances in the megahertz range. <i>Smart Materials and Structures</i> , 2015 , 24, 055013	3.4	12
107	Optimising lubricated friction coefficient by surface texturing. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2013 , 227, 2610-2619	1.3	12
106	Towards a safety index for assessing head injury potential in service robotics. <i>Advanced Robotics</i> , 2013 , 27, 831-844	1.7	12
105	Monolithic 3D labs- and organs-on-chips obtained by lithography-based ceramic manufacture. <i>International Journal of Advanced Manufacturing Technology</i> , 2017 , 93, 3371-3381	3.2	10
104	Direct Laser Writing of Fractal Surfaces: Strategy to Design and Manufacture Textured Materials. <i>Advanced Engineering Materials</i> , 2015 , 17, 172-180	3.5	10
103	Artificial neural network approach to predict the lubricated friction coefficient. <i>Lubrication Science</i> , 2014 , 26, 141-162	1.3	10

102	The Kahawa Declaration: a manifesto for the democratization of medical technology 2018 , 1,		10
101	Microarchitected Carbon Structures as Innovative Tissue-Engineering Scaffolds. <i>Advanced Engineering Materials</i> , 2020 , 22, 2000083	3.5	9
100	Shape-memory actuators manufactured by dual extrusion multimaterial 3d printing of conductive and non-conductive filaments. <i>Smart Materials and Structures</i> , 2019 , 28, 105025	3.4	9
99	Caracterizaci3n microsc3pica de texturas superficiales fabricadas aditivamente mediante estereolitograf3a l3ser. <i>Respuestas</i> , 2016 , 21, 37-47	0.3	9
98	Towards Low-Cost Effective and Homogeneous Thermal Activation of Shape Memory Polymers. <i>Materials</i> , 2013 , 6, 5447-5465	3.5	8
97	Engineering Human-Scale Artificial Bone Grafts for Treating Critical-Size Bone Defects.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 5077-5092	4.1	7
96	Robust fabrication of electrospun-like polymer mats to direct cell behaviour. <i>Biofabrication</i> , 2014 , 6, 035009	10.5	7
95	Simple Testing System for Pure Bending Tests with Large Deflections. <i>Experimental Mechanics</i> , 2012 , 52, 679-692	2.6	7
94	Neural network approach to modelling the behaviour of quantum tunnelling composites as multifunctional sensors. <i>Smart Materials and Structures</i> , 2010 , 19, 125007	3.4	7
93	Analytical model for predicting friction in line contacts. <i>Lubrication Science</i> , 2016 , 28, 189-205	1.3	7
92	Manufacturing of Polymeric Substrates with Copper Nanofillers through Laser Stereolithography Technique. <i>Polymers</i> , 2018 , 10,	4.5	7
91	Research on the Methods for the Mass Production of Multi-Scale Organs-On-Chips. <i>Polymers</i> , 2018 , 10,	4.5	7
90	Rapid Prototyping of Personalized Articular Orthoses by Lamination of Composite Fibers upon 3D-Printed Molds. <i>Materials</i> , 2020 , 13,	3.5	6
89	Comparative study of CAD/CAM programs taking account of the opinions of students and teachers. <i>Computer Applications in Engineering Education</i> , 2013 , 21, 641-656	1.6	6
88	Tissue Engineering Scaffolds for 3D Cell Culture. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 249-268	0.5	6
87	Carbon fiber/microlattice 3D hybrid architecture as multi-scale scaffold for tissue engineering. <i>Materials Science and Engineering C</i> , 2021 , 126, 112140	8.3	6
86	Surgical Planning of Sacral Nerve Stimulation Procedure in Presence of Sacral Anomalies by Using Personalized Polymeric Prototypes Obtained with Additive Manufacturing Techniques. <i>Polymers</i> , 2020 , 12,	4.5	5
85	Open-source medical devices: Healthcare solutions for low-, middle-, and high-resource settings 2020 , 7-14		5

84	Microsystems for Enhanced Control of Cell Behavior. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 ,	0.5	5
83	Design and Experimental Evaluation of Innovative Wire-to-Plane Fins Configuration for Atmosphere Corona-Discharge Cooling Devices. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1010	2.6	4
82	Modeling Living Cells Within Microfluidic Systems Using Cellular Automata Models. <i>Scientific Reports</i> , 2019 , 9, 14886	4.9	4
81	On the use of variable bending stiffness clothoidal strips for the analysis and synthesis of low variability torque-angle turned curves in spiral torsion springs. <i>Mechanism and Machine Theory</i> , 2013 , 67, 32-46	4	4
80	New Reynolds equation for line contact based on the Carreau model modification by Bair. <i>Tribology International</i> , 2012 , 55, 141-147	4.9	4
79	Carbon-Based Materials for Articular Tissue Engineering: From Innovative Scaffolding Materials toward Engineered Living Carbon. <i>Advanced Healthcare Materials</i> , 2021 , e2101834	10.1	4
78	Active Annuloplasty System for Mitral Valve Insufficiency. <i>Communications in Computer and Information Science</i> , 2008 , 59-72	0.3	4
77	Soft-Lithography of Polyacrylamide Hydrogels Using Microstructured Templates: Towards Controlled Cell Populations on Biointerfaces. <i>Materials</i> , 2020 , 13,	3.5	4
76	Artificial Intelligence Aided Design of Tissue Engineering Scaffolds Employing Virtual Tomography and 3D Convolutional Neural Networks. <i>Materials</i> , 2021 , 14,	3.5	4
75	Synergies between Surface Microstructuring and Molecular Nanopatterning for Controlling Cell Populations on Polymeric Biointerfaces. <i>Polymers</i> , 2020 , 12,	4.5	3
74	Neural Network Approach to Modelling the Behaviour of Ionic Polymer-Metal Composites in Dry Environments. <i>Journal of Signal and Information Processing</i> , 2012 , 03, 137-145	0.6	3
73	Towards Open Source Medical Devices 2018 ,		3
72	Techniques for Usability Risk Assessment during Medical Device Design 2019 ,		3
71	Physical and Chemical Properties Characterization of 3D-Printed Substrates Loaded with Copper-Nickel Nanowires. <i>Polymers</i> , 2020 , 12,	4.5	3
70	Auxetic Metamaterials for Biomedical Devices: Current Situation, Main Challenges, and Research Trends.. <i>Materials</i> , 2022 , 15,	3.5	3
69	Vortex Matter in a Superconducting Square Under 2D Thermal Gradient. <i>Journal of Low Temperature Physics</i> , 2019 , 195, 202-210	1.3	2
68	Biomechanical Study of Proximal Femur for Designing Stems for Total Hip Replacement. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 4208	2.6	2
67	Analysis of different multiaxial fatigue criteria in the prediction of pitting failure in spur gears. <i>International Journal of Surface Science and Engineering</i> , 2014 , 8, 356	1	2

66	Influence of the rheological behaviour of the lubricant on the appearance of pitting in elastohydrodynamic regime. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2012 , 35, 1047-1057	2	3
65	The UBORA E-Infrastructure for Open Source Innovation in Medical Technology. <i>IFMBE Proceedings</i> , 2020 , 878-882	0.2	2
64	Artificial Intelligence Aided Design of Microtextured Surfaces: Application to Controlling Wettability. <i>Nanomaterials</i> , 2020 , 10,	5.4	2
63	Rapid Prototyping of Biomedical Microsystems for Interacting at a Cellular Level. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 115-145	0.5	2
62	Building world class universities through innovative teaching governance. <i>Studies in Educational Evaluation</i> , 2021 , 70, 101031	2	2
61	Incorporation of Fractal Textures to 3D CAD: Towards an Enhanced Control of Surface Topography. <i>Computer-Aided Design and Applications</i> , 2015 , 12, 135-146	1.4	1
60	An open source medical passport based on an Android mobile application and near-field communication. <i>SoftwareX</i> , 2020 , 11, 100492	2.7	1
59	Multi-Channeled Polymeric Microsystem for Studying the Impact of Surface Topography on Cell Adhesion and Motility. <i>Polymers</i> , 2015 , 7, 2371-2388	4.5	1
58	Toy design experience: Improving students' motivation and results in a final year subject 2010 ,		1
57	The Twenty-One Books of Devices and Machines: An Encyclopedia of Machines and Mechanisms of the 16th Century 2009 , 115-132		1
56	Combining smart materials for enhancing intelligent systems: initial studies, success cases and research trends. <i>Smart Structures and Systems</i> , 2014 , 14, 517-539		1
55	Tissue Engineering Scaffolds for Osteochondral Repair. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 331-349	0.5	1
54	Introduction to Modern Product Development 2013 , 1-17		1
53	Fractal Geometry for Biomimetic Design of Biodevices 2013 , 95-119		1
52	Smart Microsystems for Active Cell Culture, Growth and Gene Expression Toward Relevant Tissues. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 227-247	0.5	1
51	Towards Reliable Organs-on-Chips and Humans-on-Chips. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 389-408	0.5	1
50	Tissue Engineering Scaffolds for Bone Repair: General Aspects. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 269-285	0.5	1
49	Benefits of Non-Planar Printing Strategies Towards Eco-Efficient 3D Printing. <i>Sustainability</i> , 2021 , 13, 1599	3.6	1

48	Elastohydrodynamic Models for Predicting Friction in Point Contacts Lubricated with Polyalphaolefins 2009 , 219-227		1
47	Nano-manufacturing Technologies for Biodevices: Interacting at a Molecular Scale 2013 , 247-260		1
46	Biofabrication: Main Advances and Challenges 2013 , 261-275		1
45	General Considerations for the Development of Biomedical Devices 2013 , 19-45		1
44	Taxonomy for engineered living materials. <i>Cell Reports Physical Science</i> , 2022 , 100807	6.1	1
43	Reinventing Biomedical Engineering Education Working Towards the 2030 Agenda for Sustainable Development. <i>Communications in Computer and Information Science</i> , 2020 , 29-54	0.3	0
42	Modelling, additive layer manufacturing and testing of interlocking structures for joined components.. <i>Scientific Reports</i> , 2022 , 12, 2526	4.9	0
41	Materials degradation in non-thermal plasma generators by corona discharge.. <i>Scientific Reports</i> , 2021 , 11, 24175	4.9	0
40	Microstructured Devices for Studying Cell Adhesion, Dynamics and Overall Mechanobiology. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 209-225	0.5	
39	Multi-scale and Multi-physical/Biochemical Modeling in Bio-MEMS. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 93-114	0.5	
38	Medical Imaging-Aided Design of Personalized Devices 2013 , 75-94		
37	The Evolution and Development of Mechanical Engineering Through Large Cultural Areas 2009 , 69-82		
36	Some Introductory Notes to Cell Behavior. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 3-14	0.5	
35	Systematic Methodologies for the Development of Biomedical Microdevices. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 49-65	0.5	
34	Fluidic Microsystems: From Labs-on-Chips to Microfluidic Cell Culture. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 351-372	0.5	
33	Cell-Based Sensors and Cell-Based Actuators. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 373-386	0.5	
32	Biomedical Microsystems for Disease Management. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 177-189	0.5	
31	Brief Introduction to the Field of Biomedical Microsystems. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 15-24	0.5	

- 30 Addressing the Complexity of Biomaterials by Means of Biomimetic Computer Aided Design. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 67-92 0.5
- 29 Porous and Lattice Structures for Biodevices with Advanced Properties **2013**, 121-136
- 28 Project-Based Learning (PBL) in Bioengineering **2013**, 341-354
- 27 Computer-Aided Manufacturing (CAM) of Biodevices **2013**, 167-179
- 26 Methods to Promote Creativity and Technological Transfer **2013**, 295-311
- 25 In Silico, In Vitro and In Vivo Testing of Biodevices **2013**, 277-293
- 24 Micro-manufacturing Technologies for Biodevices: Interacting at a Cellular Scale **2013**, 225-245
- 23 Computer-Aided Engineering Resources and FEM for Biodevices **2013**, 137-165
- 22 A Proposal for Structured Development Methodology for Biodevices **2013**, 313-339
- 21 Additive Manufacturing Technologies for Enhancing the Development Process of Biodevices **2013**, 181-205
- 20 Computer-Aided Design (CAD) Technologies for Biodevices **2013**, 59-74
- 19 Brief Overview of Novel Technologies with Impact in the Biomedical Device Industry **2013**, 47-57
- 18 Rapid Form Copying and Rapid Mould-Making Systems for Biodevices **2013**, 207-223
- 17 Tissue Engineering Scaffolds for Repairing Soft Tissues. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 301-330 0.5
- 16 Project-Based Learning in the Field of Biomedical Microdevices: The CDIO Approach. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 419-431 0.5
- 15 State-of-the-Art Bioengineering Resources for Interacting with Cells. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 37-45 0.5
- 14 Issues Linked to the Mass-Production of Biomedical Microsystems. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 163-174 0.5
- 13 Overview of Microsystems for Studying Cell Behavior Under Culture. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 191-208 0.5

12	Towards Effective and Efficient Biofabrication Technologies. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 409-418	0.5
11	Brief Introduction to Biomedical Microsystems for Interacting with Cells. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 25-36	0.5
10	Nanomanufacturing Technologies for Biomedical Microsystems Interacting at a Molecular Scale. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 147-162	0.5
9	Tissue Engineering Scaffolds for Bone Repair: Application to Dental Repair. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2016 , 287-299	0.5
8	Analysis of the adhesion of titanium and carbon-diamond coatings on 3D printed textured surfaces. <i>Journal of Physics: Conference Series</i> , 2019 , 1386, 012007	0.3
7	Methods and Technologies for the Personalized Design of Open-Source Medical Devices 2022 , 191-218	
6	Certification Pathways for Open-Source Medical Devices 2022 , 127-144	
5	Open-Source Medical Devices: Concept, Trends, and Challenges Toward Equitable Healthcare Technology 2022 , 1-19	
4	Towards a Harmonized Methodology for the Development of Safe and Regulation Compliant Open-Source Medical Devices 2022 , 21-38	
3	On the Sustainable Growth of the Biomedical Industry Reinvented Through Innovative Open-Source Medical Devices 2022 , 243-266	
2	Creativity Promotion in Open-Source Projects: Application to Open-Source Medical Devices and Healthcare Technologies 2022 , 167-190	
1	Biomedical engineering in low- and middle-income settings: analysis of current state, challenges and best practices.. <i>Health and Technology</i> , 2022 , 1-11	2.1