Andres Diaz Lantada

List of Publications by Year in Descending Order

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	Methods and Technologies for the Personalized Design of Open-Source Medical Devices **2022**, 191-218		
136	Certification Pathways for Open-Source Medical Devices **2022**, 127-144		
135	Open-Source Medical Devices: Concept, Trends, and Challenges Toward Equitable Healthcare Technology **2022**, 1-19		
134	Towards a Harmonized Methodology for the Development of Safe and Regulation Compliant Open-Source Medical Devices **2022**, 21-38		
133	On the Sustainable Growth of the Biomedical Industry Reinvented Through Innovative Open-Source Medical Devices **2022**, 243-266		
132	Creativity Promotion in Open-Source Projects: Application to Open-Source Medical Devices and Healthcare Technologies **2022**, 167-190		
131	Modelling, additive layer manufacturing and testing of interlocking structures for joined components.. *Scientific Reports*, **2022**, 12, 2526	4.9	0
130	Auxetic Metamaterials for Biomedical Devices: Current Situation, Main Challenges, and Research Trends.. *Materials*, **2022**, 15,	3.5	3
129	Taxonomy for engineered living materials. *Cell Reports Physical Science*, **2022**, 100807	6.1	1
128	Biomedical engineering in low- and middle-income settings: analysis of current state, challenges and best practices.. *Health and Technology*, **2022**, 1-11	2.1	
127	Carbon-Based Materials for Articular Tissue Engineering: From Innovative Scaffolding Materials toward Engineered Living Carbon. *Advanced Healthcare Materials*, **2021**, e2101834	10.1	4
126	Benefits of Non-Planar Printing Strategies Towards Eco-Efficient 3D Printing. *Sustainability*, **2021**, 13, 1599	3.6	1
125	Carbon fiber/microlattice 3D hybrid architecture as multi-scale scaffold for tissue engineering. *Materials Science and Engineering C*, **2021**, 126, 112140	8.3	6
124	Building world class universities through innovative teaching governance. *Studies in Educational Evaluation*, **2021**, 70, 101031	2	2
123	Artificial Intelligence Aided Design of Tissue Engineering Scaffolds Employing Virtual Tomography and 3D Convolutional Neural Networks. *Materials*, **2021**, 14,	3.5	4
122	Materials degradation in non-thermal plasma generators by corona discharge.. *Scientific Reports*, **2021**, 11, 24175	4.9	0
121	An open source medical passport based on an Android mobile application and near-field communication. *SoftwareX*, **2020**, 11, 100492	2.7	1

120	Biomechanical Study of Proximal Femur for Designing Stems for Total Hip Replacement. *Applied Sciences (Switzerland)*, **2020**, 10, 4208	2.6	2
119	Synergies between Surface Microstructuring and Molecular Nanopatterning for Controlling Cell Populations on Polymeric Biointerfaces. *Polymers*, **2020**, 12,	4.5	3
118	Surgical Planning of Sacral Nerve Stimulation Procedure in Presence of Sacral Anomalies by Using Personalized Polymeric Prototypes Obtained with Additive Manufacturing Techniques. *Polymers*, **2020**, 12,	4.5	5
117	Microarchitectured Carbon Structures as Innovative Tissue-Engineering Scaffolds. *Advanced Engineering Materials*, **2020**, 22, 2000083	3.5	9
116	Rapid Prototyping of Personalized Articular Orthoses by Lamination of Composite Fibers upon 3D-Printed Molds. *Materials*, **2020**, 13,	3.5	6
115	Design and Experimental Evaluation of Innovative Wire-to-Plane Fins Configuration for Atmosphere Corona-Discharge Cooling Devices. *Applied Sciences (Switzerland)*, **2020**, 10, 1010	2.6	4
114	Reinventing Biomedical Engineering Education Working Towards the 2030 Agenda for Sustainable Development. *Communications in Computer and Information Science*, **2020**, 29-54	0.3	0
113	The UBORA E-Infrastructure for Open Source Innovation in Medical Technology. *IFMBE Proceedings*, **2020**, 878-882	0.2	2
112	Open-source medical devices: Healthcare solutions for low-, middle-, and high-resource settings **2020**, 7-14		5
111	Physical and Chemical Properties Characterization of 3D-Printed Substrates Loaded with Copper-Nickel Nanowires. *Polymers*, **2020**, 12,	4.5	3
110	Artificial Intelligence Aided Design of Microtextured Surfaces: Application to Controlling Wettability. *Nanomaterials*, **2020**, 10,	5.4	2
109	Soft-Lithography of Polyacrylamide Hydrogels Using Microstructured Templates: Towards Controlled Cell Populations on Biointerfaces. *Materials*, **2020**, 13,	3.5	4
108	Engineering Human-Scale Artificial Bone Grafts for Treating Critical-Size Bone Defects.. *ACS Applied Bio Materials*, **2019**, 2, 5077-5092	4.1	7
107	Vortex Matter in a Superconducting Square Under 2D Thermal Gradient. *Journal of Low Temperature Physics*, **2019**, 195, 202-210	1.3	2
106	Biofabrication strategies for creating microvascular complexity. *Biofabrication*, **2019**, 11, 032001	10.5	18
105	Shape-memory actuators manufactured by dual extrusion multimaterial 3d printing of conductive and non-conductive filaments. *Smart Materials and Structures*, **2019**, 28, 105025	3.4	9
104	Modeling Living Cells Within Microfluidic Systems Using Cellular Automata Models. *Scientific Reports*, **2019**, 9, 14886	4.9	4
103	Techniques for Usability Risk Assessment during Medical Device Design **2019**,		3

102	Analysis of the adhesion of titanium and carbon-diamond coatings on 3D printed textured surfaces. *Journal of Physics: Conference Series*, **2019**, 1386, 012007	0.3	
101	Safe innovation: On medical device legislation in Europe and Africa. *Health Policy and Technology*, **2018**, 7, 156-165	4.8	24
100	The Kahawa Declaration: a manifesto for the democratization of medical technology **2018**, 1,		10
99	Towards Open Source Medical Devices **2018**,		3
98	Manufacturing of Polymeric Substrates with Copper Nanofillers through Laser Stereolithography Technique. *Polymers*, **2018**, 10,	4.5	7
97	Research on the Methods for the Mass Production of Multi-Scale Organs-On-Chips. *Polymers*, **2018**, 10,	4.5	7
96	Lithography-based additive manufacture of ceramic biodevices with design-controlled surface topographies. *International Journal of Advanced Manufacturing Technology*, **2017**, 88, 1547-1555	3.2	12
95	Systematic Development Strategy for Smart Devices Based on Shape-Memory Polymers. *Polymers*, **2017**, 9,	4.5	23
94	3D Printed Structures Filled with Carbon Fibers and Functionalized with Mesenchymal Stem Cell Conditioned Media as In Vitro Cell Niches for Promoting Chondrogenesis. *Materials*, **2017**, 11,	3.5	13
93	Design and Performance Assessment of Innovative Eco-Efficient Support Structures for Additive Manufacturing by Photopolymerization. *Journal of Industrial Ecology*, **2017**, 21, S179-S190	7.2	13
92	Monolithic 3D labs- and organs-on-chips obtained by lithography-based ceramic manufacture. *International Journal of Advanced Manufacturing Technology*, **2017**, 93, 3371-3381	3.2	10
91	Lotus-on-chip: computer-aided design and 3D direct laser writing of bioinspired surfaces for controlling the wettability of materials and devices. *Bioinspiration and Biomimetics*, **2017**, 12, 066004	2.6	13
90	Composite scaffolds for osteochondral repair obtained by combination of additive manufacturing, leaching processes and hMSC-CM functionalization. *Materials Science and Engineering C*, **2016**, 59, 218-227	4.3	19
89	Microstructured Devices for Studying Cell Adhesion, Dynamics and Overall Mechanobiology. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 209-225	0.5	
88	Multi-scale and Multi-physical/Biochemical Modeling in Bio-MEMS. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 93-114	0.5	
87	Caracterizaci□n microsc□pica de texturas superficiales fabricadas aditivamente mediante estereolitograf□a l□ser. *Respuestas*, **2016**, 21, 37-47	0.3	9
86	Tissue Engineering Scaffolds for Osteochondral Repair. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 331-349	0.5	1
85	Some Introductory Notes to Cell Behavior. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 3-14	0.5	

84	Systematic Methodologies for the Development of Biomedical Microdevices. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 49-65	0.5	
83	Fluidic Microsystems: From Labs-on-Chips to Microfluidic Cell Culture. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 351-372	0.5	
82	Cell-Based Sensors and Cell-Based Actuators. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 373-386	0.5	
81	Biomedical Microsystems for Disease Management. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 177-189	0.5	
80	Brief Introduction to the Field of Biomedical Microsystems. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 15-24	0.5	
79	Addressing the Complexity of Biomaterials by Means of Biomimetic Computer Aided Design. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 67-92	0.5	
78	Smart Microsystems for Active Cell Culture, Growth and Gene Expression Toward Relevant Tissues. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 227-247	0.5	1
77	Tissue Engineering Scaffolds for Repairing Soft Tissues. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 301-330	0.5	
76	Rapid Prototyping of Biomedical Microsystems for Interacting at a Cellular Level. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 115-145	0.5	2
75	Micro-vascular shape-memory polymer actuators with complex geometries obtained by laser stereolithography. *Smart Materials and Structures*, **2016**, 25, 065018	3.4	20
74	Lithography-based ceramic manufacture (LCM) of auxetic structures: present capabilities and challenges. *Smart Materials and Structures*, **2016**, 25, 054015	3.4	41
73	Project-Based Learning in the Field of Biomedical Microdevices: The CDIO Approach. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 419-431	0.5	
72	State-of-the-Art Bioengineering Resources for Interacting with Cells. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 37-45	0.5	
71	Issues Linked to the Mass-Production of Biomedical Microsystems. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 163-174	0.5	
70	Overview of Microsystems for Studying Cell Behavior Under Culture. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 191-208	0.5	
69	Tissue Engineering Scaffolds for 3D Cell Culture. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 249-268	0.5	6
68	Towards Reliable Organs-on-Chips and Humans-on-Chips. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 389-408	0.5	1
67	Towards Effective and Efficient Biofabrication Technologies. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 409-418	0.5	

66	Brief Introduction to Biomedical Microsystems for Interacting with Cells. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 25-36	0.5	
65	Microsystems for Enhanced Control of Cell Behavior. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**,	0.5	5
64	Nanomanufacturing Technologies for Biomedical Microsystems Interacting at a Molecular Scale. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 147-162	0.5	
63	Tissue Engineering Scaffolds for Bone Repair: General Aspects. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 269-285	0.5	1
62	Tissue Engineering Scaffolds for Bone Repair: Application to Dental Repair. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2016**, 287-299	0.5	
61	Analytical model for predicting friction in line contacts. *Lubrication Science*, **2016**, 28, 189-205	1.3	7
60	Incorporation of Fractal Textures to 3D CAD: Towards an Enhanced Control of Surface Topography. *Computer-Aided Design and Applications*, **2015**, 12, 135-146	1.4	1
59	Auxetic tissue engineering scaffolds with nanometric features and resonances in the megahertz range. *Smart Materials and Structures*, **2015**, 24, 055013	3.4	12
58	Toward mass production of microtextured microdevices: linking rapid prototyping with microinjection molding. *International Journal of Advanced Manufacturing Technology*, **2015**, 76, 1011-1020	2.2	21
57	Direct Laser Writing of Fractal Surfaces: Strategy to Design and Manufacture Textured Materials. *Advanced Engineering Materials*, **2015**, 17, 172-180	3.5	10
56	Multi-Channeled Polymeric Microsystem for Studying the Impact of Surface Topography on Cell Adhesion and Motility. *Polymers*, **2015**, 7, 2371-2388	4.5	1
55	Robust fabrication of electrospun-like polymer mats to direct cell behaviour. *Biofabrication*, **2014**, 6, 035009	10.5	7
54	Deep reactive ion etching of auxetic structures: present capabilities and challenges. *Smart Materials and Structures*, **2014**, 23, 087001	3.4	14
53	Rapid prototyping of multi-scale biomedical microdevices by combining additive manufacturing technologies. *Biomedical Microdevices*, **2014**, 16, 617-27	3.7	41
52	Direct laser writing of auxetic structures: present capabilities and challenges. *Smart Materials and Structures*, **2014**, 23, 085033	3.4	52
51	Analysis of different multiaxial fatigue criteria in the prediction of pitting failure in spur gears. *International Journal of Surface Science and Engineering*, **2014**, 8, 356	1	2
50	Artificial neural network approach to predict the lubricated friction coefficient. *Lubrication Science*, **2014**, 26, 141-162	1.3	10
49	Free-Form Rapid Prototyped Porous PDMS Scaffolds Incorporating Growth Factors Promote Chondrogenesis. *Advances in Materials Science and Engineering*, **2014**, 2014, 1-10	1.5	29

48	Combining smart materials for enhancing intelligent systems: initial studies, success cases and research trends. *Smart Structures and Systems*, **2014**, 14, 517-539		1
47	Comparative study of CAD□CAE programs taking account of the opinions of students and teachers. *Computer Applications in Engineering Education*, **2013**, 21, 641-656	1.6	6
46	Medical Imaging-Aided Design of Personalized Devices **2013**, 75-94		
45	Fractals in tissue engineering: toward biomimetic cell-culture matrices, microsystems and microstructured implants. *Expert Review of Medical Devices*, **2013**, 10, 629-48	3.5	23
44	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. *Mechanism and Machine Theory*, **2013**, 67, 32-46	4	4
43	Towards Low-Cost Effective and Homogeneous Thermal Activation of Shape Memory Polymers. *Materials*, **2013**, 6, 5447-5465	3.5	8
42	Optimising lubricated friction coefficient by surface texturing. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2013**, 227, 2610-2619	1.3	12
41	Comparative study of potential pentamodal metamaterials inspired by Bravais lattices. *Smart Materials and Structures*, **2013**, 22, 115013	3.4	30
40	Towards a safety index for assessing head injury potential in service robotics. *Advanced Robotics*, **2013**, 27, 831-844	1.7	12
39	Porous and Lattice Structures for Biodevices with Advanced Properties **2013**, 121-136		
38	Project-Based Learning (PBL) in Bioengineering **2013**, 341-354		
37	Computer-Aided Manufacturing (CAM) of Biodevices **2013**, 167-179		
36	Methods to Promote Creativity and Technological Transfer **2013**, 295-311		
35	In Silico, In Vitro and In Vivo Testing of Biodevices **2013**, 277-293		
34	Micro-manufacturing Technologies for Biodevices: Interacting at a Cellular Scale **2013**, 225-245		
33	Computer-Aided Engineering Resources and FEM for Biodevices **2013**, 137-165		
32	A Proposal for Structured Development Methodology for Biodevices **2013**, 313-339		
31	Additive Manufacturing Technologies for Enhancing the Development Process of Biodevices **2013**, 181-205		

30	Introduction to Modern Product Development **2013**, 1-17		1
29	Fractal Geometry for Biomimetic Design of Biodevices **2013**, 95-119		1
28	Computer-Aided Design (CAD) Technologies for Biodevices **2013**, 59-74		
27	Brief Overview of Novel Technologies with Impact in the Biomedical Device Industry **2013**, 47-57		
26	Rapid Form Copying and Rapid Mould-Making Systems for Biodevices **2013**, 207-223		
25	Nano-manufacturing Technologies for Biodevices: Interacting at a Molecular Scale **2013**, 247-260		1
24	Biofabrication: Main Advances and Challenges **2013**, 261-275		1
23	General Considerations for the Development of Biomedical Devices **2013**, 19-45		1
22	Influence of the rheological behaviour of the lubricant on the appearance of pitting in elastohydrodynamic regime. *Fatigue and Fracture of Engineering Materials and Structures*, **2012**, 35, 1047-1057	3	2
21	New Reynolds equation for line contact based on the Carreau model modification by Bair. *Tribology International*, **2012**, 55, 141-147	4.9	4
20	Rapid prototyping for biomedical engineering: current capabilities and challenges. *Annual Review of Biomedical Engineering*, **2012**, 14, 73-96	12	151
19	Comparative study of auxetic geometries by means of computer-aided design and engineering. *Smart Materials and Structures*, **2012**, 21, 105004	3.4	96
18	Simple Testing System for Pure Bending Tests with Large Deflections. *Experimental Mechanics*, **2012**, 52, 679-692	2.6	7
17	Tissue Engineering Using Novel Rapid Prototyped Diamond-Like Carbon Coated Scaffolds. *Plasma Processes and Polymers*, **2012**, 9, 98-107	3.4	21
16	Novel system for bite-force sensing and monitoring based on magnetic near field communication. *Sensors*, **2012**, 12, 11544-58	3.8	37
15	Neural Network Approach to Modelling the Behaviour of Ionic Polymer-Metal Composites in Dry Environments. *Journal of Signal and Information Processing*, **2012**, 03, 137-145	0.6	3
14	Analytical model for predicting the friction coefficient in point contacts with thermal elastohydrodynamic lubrication. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2011**, 225, 181-191	1.4	20
13	Neural network approach to modelling the behaviour of quantum tunnelling composites as multifunctional sensors. *Smart Materials and Structures*, **2010**, 19, 125007	3.4	7

12	Intelligent structures based on the improved activation of shape memory polymers using Peltier cells. *Smart Materials and Structures*, **2010**, 19, 055022	3.4	23
11	Toy design experience: Improving students' motivation and results in a final year subject **2010**,		1
10	Design and rapid prototyping of DLC coated fractal surfaces for tissue engineering applications. *Journal of Physics: Conference Series*, **2010**, 252, 012003	0.3	24
9	Quantum tunnelling composites: Characterisation and modelling to promote their applications as sensors. *Sensors and Actuators A: Physical*, **2010**, 164, 46-57	3.9	26
8	Development of personalized annuloplasty rings: combination of CT images and CAD-CAM tools. *Annals of Biomedical Engineering*, **2010**, 38, 280-90	4.7	21
7	Towards complete product development teaching employing combined CAD□CAM□CAE technologies. *Computer Applications in Engineering Education*, **2010**, 18, 661-668	1.6	15
6	Models for predicting friction coefficient and parameters with influence in elastohydrodynamic lubrication. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2009**, 223, 949-958	1.4	18
5	Physical ageing of a PU-based shape memory polymer: Influence on their applicability to the development of medical devices. *Materials & Design*, **2009**, 30, 2431-2434		39
4	The Twenty-One Books of Devices and Machines: An Encyclopedia of Machines and Mechanisms of the 16th Century **2009**, 115-132		1
3	The Evolution and Development of Mechanical Engineering Through Large Cultural Areas **2009**, 69-82		
2	Elastohydrodynamic Models for Predicting Friction in Point Contacts Lubricated with Polyalphaolefins **2009**, 219-227		1
1	Active Annuloplasty System for Mitral Valve Insufficiency. *Communications in Computer and Information Science*, **2008**, 59-72	0.3	4