Mercedes VÃ¡zquez

List of Publications by Year
in descending order

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62 papers	2,149 citations	279487 23 h-index	233125 45 g-index
63 all docs	63 docs citations	63 times ranked	2951 citing authors

#	Article	IF	Citations
1	Adsorption and Desorption of Methylene Blue on Porous Carbon Monoliths and Nanocrystalline Cellulose. ACS Applied Materials & Interfaces, 2013, 5, 8796-8804.	4.0	302
2	Selective laser sintering of hydroxyapatite/poly-Îµ-caprolactone scaffolds. Acta Biomaterialia, 2010, 6, 2511-2517.	4.1	164
3	Influence of oxygen and carbon dioxide on the electrochemical stability of poly(3,4-ethylenedioxythiophene) used as ion-to-electron transducer in all-solid-state ion-selective electrodes. Sensors and Actuators B: Chemical, 2002, 82, 7-13.	4.0	138
4	Solution-cast films of poly(3,4-ethylenedioxythiophene) as ion-to-electron transducers in all-solid-state ion-selective electrodes. Sensors and Actuators B: Chemical, 2004, 97, 182-189.	4.0	116
5	Advances in three-dimensional rapid prototyping of microfluidic devices for biological applications. Biomicrofluidics, 2014, 8, 052112.	1.2	114
6	Advanced materials of printed wearables for physiological parameter monitoring. Materials Today, 2020, 32, 147-177.	8.3	110
7	MXene materials based printed flexible devices for healthcare, biomedical and energy storage applications. Materials Today, 2021, 43, 99-131.	8.3	107
8	Review on recent and advanced applications of monoliths and related porous polymer gels in micro-fluidic devices. Analytica Chimica Acta, 2010, 668, 100-113.	2.6	83
9	High speed laser surface modification of Tiâ€“6Alâ€“4V. Surface and Coatings Technology, 2012, 206, 3223-3229.	2.2	74
10	Surface modification of polymers for biocompatibility via exposure to extreme ultraviolet radiation. Journal of Biomedical Materials Research - Part A, 2014, 102, 3298-3310.	2.1	71
11	Dual contactless conductivity and amperometric detection on hybrid PDMS/glass electrophoresis microchips. Analyst, The, 2010, 135, 96-103.	1.7	63
12	Laser assisted synthesis of carbon nanoparticles with controlled viscosities for printing applications. Journal of Colloid and Interface Science, 2015, 447, 263-268.	5.0	52
13	Potentiometric sensors based on poly(3,4-ethylenedioxythiophene) (PEDOT) doped with sulfonated calix[4]arene and calix[4]resorcarenes. Journal of Solid State Electrochemistry, 2005, 9, 312-319.	1.2	49
14	Liquid Phase â€“ Pulsed Laser Ablation: A route to fabricate different carbon nanostructures. Applied Surface Science, 2014, 302, 141-144.	3.1	48
15	Portable low-cost open-source wireless spectrophotometer for fast and reliable measurements. HardwareX, 2020, 7, e00108.	1.1	42
16	Potentiometric sensors for Ag+ based on poly(3-octylthiophene) (POT). Journal of Solid State Electrochemistry, 2005, 9, 865-873.	1.2	36
17	In vitrofibroblast and pre-osteoblastic cellular responses on laser surface modified Tiâ€“6Alâ€“4V. Biomedical Materials (Bristol), 2015, 10, 015007.	1.7	35
18	Small-volume radial flow cell for all-solid-state ion-selective electrodes. Talanta, 2004, 62, 57-63.	2.9	34

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19	Microchannel fabrication on cyclic olefin polymer substrates via 1064 nm Nd:YAG laser ablation. Applied Surface Science, 2016, 387, 603-608.	3.1	33
20	Permeability of rapid prototyped artificial bone scaffold structures. Journal of Biomedical Materials Research - Part A, 2014, 102, 4127-4135.	2.1	32
21	Fast Fabrication Process of Microfluidic Devices Based on Cyclic Olefin Copolymer. Materials and Manufacturing Processes, 2014, 29, 93-99.	2.7	29
22	Versatile Capillary Column Temperature Control Using a Thermoelectric Array Based Platform. Analytical Chemistry, 2011, 83, 4307-4313.	3.2	25
23	Centrifugally-driven sample extraction, preconcentration and purification in microfluidic compact discs. TrAC - Trends in Analytical Chemistry, 2011, 30, 1575-1586.	5.8	24
24	Methacrylate Polymer Monoliths for Separation Applications. Materials, 2016, 9, 446.	1.3	23
25	Pulsed laser deposition of plasmonic nanostructured gold on flexible transparent polymers at atmospheric pressure. Journal Physics D: Applied Physics, 2017, 50, 245303.	1.3	19
26	Determination of Na+, K+, Ca2+, and Clâ˜ Ions in Wood Pulp Suspension Using Ion-Selective Electrodes. Electroanalysis, 2001, 13, 1119-1124.	1.5	18
27	Review of Materials and Fabrication Methods for Flexible Nano and Micro-Scale Physical and Chemical Property Sensors. Applied Sciences (Switzerland), 2021, 11, 8563.	1.3	17
28	Extreme Ultraviolet Surface Modification of Polyethylene Terephthalate (PET) for Surface Structuring and Wettability Control. Acta Physica Polonica A, 2016, 129, 241-243.	0.2	17
29	Fabrication of Bonded Monolithic Porous Layer Open Tubular (monoPLOT) Columns in Wide Bore Capillary by Laminar Flow Thermal Initiation. Chromatographia, 2013, 76, 581-589.	0.7	16
30	Rapid Prototyped Biomimetic Antifouling Surfaces for Marine Applications. Materials Today: Proceedings, 2016, 3, 527-532.	0.9	16
31	An evaluation of components manufactured from a range of materials, fabricated using PolyJet technology. Advances in Materials and Processing Technologies, 2017, 3, 318-329.	0.8	16
32	Magnesium Nanoparticle Synthesis from Powders via Pulsed Laser Ablation in Liquid for Nanocolloid Production. Applied Sciences (Switzerland), 2021, 11, 10974.	1.3	15
33	Effect of Hydroxyapatite on Biodegradable Scaffolds Fabricated by SLS. Key Engineering Materials, 2008, 396-398, 659-662.	0.4	14
34	Ti6Al4V functionally graded material via high power and high speed laser surface modification. Surface and Coatings Technology, 2020, 398, 126085.	2.2	14
35	Silver nanocolloid generation using dynamic Laser Ablation Synthesis in Solution system and drop-casting. Nano Structures Nano Objects, 2022, 29, 100841.	1.9	14
36	New strategies for stationary phase integration within centrifugal microfluidic platforms for applications in sample preparation and pre-concentration. Analytical Methods, 2017, 9, 1998-2006.	1.3	13

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37	Additive-free silver nanoparticle ink development using flow-based Laser Ablation Synthesis in Solution and Aerosol Jet printing. Chemical Engineering Journal, 2022, 449, 137817.	6.6	13
38	Design of Bone Scaffolds Structures for Rapid Prototyping with Increased Strength and Osteoconductivity. Advanced Materials Research, 0, 83-86, 914-922.	0.3	12
39	The use of scanning contactless conductivity detection for the characterisation of stationary phases in micro-fluidic chips. Lab on A Chip, 2010, 10, 1777.	3.1	12
40	Real-time monitoring and control for high-efficiency autonomous laser fabrication of silicon nanoparticle colloids. International Journal of Advanced Manufacturing Technology, 2021, 114, 291-304.	1.5	12
41	Additive Manufacturing of Bone Scaffolds Using PolyJet and Stereolithography Techniques. Applied Sciences (Switzerland), 2021, 11, 7336.	1.3	12
42	Fabrication and Characterization of Nanotemplated Carbon Monolithic Material. ACS Applied Materials & Interfaces, 2013, 5, 8572-8580.	4.0	10
43	Focussed ion beam serial sectioning and imaging of monolithic materials for 3D reconstruction and morphological parameter evaluation. Analyst, The, 2014, 139, 99-104.	1.7	9
44	Nanoparticle functionalized laser patterned substrate: an innovative route towards low cost biomimetic platforms. RSC Advances, 2017, 7, 8060-8069.	1.7	9
45	Effect of Saturation and Post Processing on 3D Printed Calcium Phosphate Scaffolds. Key Engineering Materials, 2008, 396-398, 663-666.	0.4	8
46	Taguchi method modelling of Nd:YAG laser ablation of microchannels on cyclic olefin polymer film. Optics and Laser Technology, 2018, 106, 265-271.	2.2	8
47	Use of some cost-effective technologies for a routine clinical pathology laboratory. Lab on A Chip, 2021, 21, 4330-4351.	3.1	8
48	Developments of Laser Fabrication Methods for Lab-on-a-Chip Microfluidic Multisensing Devices. , 2014, , 447-458.		6
49	Digitisation of metal AM for part microstructure and property control. International Journal of Material Forming, 2022, 15, 30.	0.9	6
50	Laser Processing of Quartz for Microfluidic Device Fabrication. Advanced Materials Research, 2012, 445, 436-441.	0.3	4
51	Physical integrity of 3D printed parts for use as embossing tools. Advances in Materials and Processing Technologies, 2017, 3, 308-317.	0.8	4
52	Surface roughness control by extreme ultraviolet (EUV) radiation. AIP Conference Proceedings, 2017, , .	0.3	4
53	Multi-Material Production of 4D Shape Memory Polymer Composites. , 2021, , 879-894.		4
54	Laser micro-engineering of functionalised cyclic olefin polymers for microfluidic applications. Proceedings of SPIE, 2015, , .	0.8	3

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55	Modelling and optimisation of single-step laser-based gold nanostructure deposition with tunable optical properties. Optics and Laser Technology, 2018, 108, 295-305.	2.2	3
56	Procedure 4 Determination of Ca(II) in wood pulp using a calcium-selective electrode with poly(3,4-ethylenedioxythiophene) as ion-to-electron transducer. Comprehensive Analytical Chemistry, 2007, 49, e25-e28.	0.7	2
57	Laser-assisted synthesis of ultrapure nanostructures for biological sensing applications. Proceedings of SPIE, 2016, , .	0.8	2
58	Advanced Characterisation Techniques for Nanostructures. , 2018, , 55-93.		2
59	Electrochemical and chronoamperometry assessment of nanoâ€'gold sensor surfaces produced via novel laser fabrication methods. Journal of Electroanalytical Chemistry, 2021, 880, 114813.	1.9	2
60	Fabrication of microstructured planar chromatography platforms via laser ablation. Journal of Liquid Chromatography and Related Technologies, 0, , 1-6.	0.5	1
61	Enhanced organic species identification via laser structuring of carbon monolithic surfaces. Applied Surface Science, 2019, 493, 829-837.	3.1	0
62	Chemical surface modification of polyethylene terephthalate (PET) films using extreme ultraviolet. AIP Conference Proceedings, 2019, , .	0.3	0