

Marie-Christine Durrieu

List of Publications by Year in descending order

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116
papers

3,843
citations

147801

31
h-index

144013

57
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119
all docs

119
docs citations

119
times ranked

5307
citing authors

#	ARTICLE	IF	CITATIONS
1	Interplay of matrix stiffness and stress relaxation in directing osteogenic differentiation of mesenchymal stem cells. <i>Biomaterials Science</i> , 2022, 10, 4978-4996.	5.4	6
2	4 Hydrogels for mesenchymal stem cell behavior study. , 2021, , 103-142.		0
3	Evaluating Poly(Acrylamide-co Acrylic Acid) Hydrogels Stress Relaxation to Direct the Osteogenic Differentiation of Mesenchymal Stem Cells. <i>Macromolecular Bioscience</i> , 2021, 21, 2100069.	4.1	8
4	Mesenchymal Stem Cell Differentiation Driven by Osteoinductive Bioactive Nanoscale Topographies. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 11209.	2.5	0
5	Directing hMSCs fate through geometrical cues and mimetics peptides. <i>Journal of Biomedical Materials Research - Part A</i> , 2020, 108, 201-211.	4.0	8
6	Biocompatible nano-ripples structured surfaces induced by femtosecond laser to rebel bacterial colonization and biofilm formation. <i>Optics and Laser Technology</i> , 2020, 124, 105973.	4.6	55
7	Microchannel Molding Combined with Layer-by-Layer Approach for the Formation of Three-Dimensional Tube-like Structures by Endothelial Cells. <i>ACS Applied Bio Materials</i> , 2020, 3, 1520-1532.	4.6	4
8	Bioactive micropatterning of biomaterials for induction of endothelial progenitor cell differentiation: Acceleration of in situ endothelialization. <i>Journal of Biomedical Materials Research - Part A</i> , 2020, 108, 1479-1492.	4.0	4
9	Atmospheric pulsed plasma copolymerization of acrylic monomers: Kinetics, chemistry, and applications. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900187.	3.0	7
10	Femtosecond Laser Nano/Micro Textured Ti6Al4V Surfaces Effect on Wetting and MG-63 Cell Adhesion. <i>Materials</i> , 2019, 12, 2210.	2.9	33
11	Dendron-Functionalized Surface: Efficient Strategy for Enhancing the Capture of Microvesicles. <i>IScience</i> , 2019, 21, 110-123.	4.1	2
12	Label-free multi-parametric imaging of single cells: dual picosecond optoacoustic microscopy. <i>Journal of Biophotonics</i> , 2019, 12, e201900045.	2.3	18
13	Remote imaging of single cell 3D morphology with ultrafast coherent phonons and their resonance harmonics. <i>Scientific Reports</i> , 2019, 9, 6409.	3.3	13
14	Microstructure and corrosion behavior of laser induced periodic patterned titanium based alloy. <i>Optics and Laser Technology</i> , 2019, 116, 196-213.	4.6	11
15	Controlled Nanoscale Topographies for Osteogenic Differentiation of Mesenchymal Stem Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 8858-8866.	8.0	32
16	Opto-acoustic microscopy reveals adhesion mechanics of single cells. <i>Review of Scientific Instruments</i> , 2018, 89, 014901.	1.3	19
17	Femtosecond laser microstructured Alumina toughened Zirconia: A new strategy to improve osteogenic differentiation of hMSCs. <i>Applied Surface Science</i> , 2018, 435, 1237-1245.	6.1	47
18	The spatial patterning of RGD and BMP-2 mimetic peptides at the subcellular scale modulates human mesenchymal stem cells osteogenesis. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 959-970.	4.0	19

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19	Single or Mixed Tethered Peptides To Promote hMSC Differentiation toward Osteoblastic Lineage. ACS Applied Bio Materials, 2018, 1, 1800-1809.	4.6	14
20	A particle model analysing the behavioural rules underlying the collective flight of a bee swarm towards the new nest. Journal of Biological Dynamics, 2018, 12, 632-662.	1.7	9
21	Validation of reference genes for real-time PCR of cord blood mononuclear cells, differentiating endothelial progenitor cells, and mature endothelial cells. Experimental Cell Research, 2018, 370, 389-398.	2.6	12
22	Interplay of Geometric Cues and RGD/BMP-2 Crosstalk in Directing Stem Cell Fate. ACS Biomaterials Science and Engineering, 2017, 3, 2514-2523.	5.2	17
23	Beneficial Effect of Covalently Grafted Î±-MSH on Endothelial Release of Inflammatory Mediators for Applications in Implantable Devices. PLoS ONE, 2016, 11, e0150706.	2.5	1
24	Surface bound <sc>VEGF</sc> mimicking peptide maintains endothelial cell proliferation in the absence of soluble <sc>VEGF</sc> <i>in vitro</i>. Journal of Biomedical Materials Research - Part A, 2016, 104, 1425-1436.	4.0	11
25	The effects of femtosecond laser-textured Ti-6Al-4V on wettability and cell response. Materials Science and Engineering C, 2016, 69, 311-320.	7.3	125
26	RGD and BMP-2 mimetic peptide crosstalk enhances osteogenic commitment of human bone marrow stem cells. Acta Biomaterialia, 2016, 36, 132-142.	8.3	100
27	Laser surface structuring of ceramics, metals and polymers for biomedical applications. , 2016, , 281-299.		17
28	Nanoparticles highly loaded with gentamicin sulfate by a combination of polyhydroxylated macromonomers and ROMP for the synthesis of bioactive biomaterials. Polymer Chemistry, 2016, 7, 7019-7028.	3.9	7
29	Femtosecond laser surface texturing of titanium as a method to reduce the adhesion of Staphylococcus aureus and biofilm formation. Applied Surface Science, 2016, 360, 485-493.	6.1	195
30	Vancomycin Functionalized Nanoparticles for Bactericidal Biomaterial Surfaces. Biomacromolecules, 2016, 17, 1339-1346.	5.4	39
31	Thermal microscopy of single biological cells. Applied Physics Letters, 2015, 107, .	3.3	9
32	Comparison of Kernel Density Estimators with Assumption on Number of Modes. Communications in Statistics Part B: Simulation and Computation, 2015, 44, 196-216.	1.2	9
33	All-optical broadband ultrasonography of single cells. Scientific Reports, 2015, 5, 8650.	3.3	62
34	Human mesenchymal stem cell behavior on femtosecond laser-textured Ti-6Al-4V surfaces. Nanomedicine, 2015, 10, 725-739.	3.3	100
35	A hybrid mathematical model for self-organizing cell migration in the zebrafish lateral line. Journal of Mathematical Biology, 2015, 71, 171-214.	1.9	29
36	Probing single-cell mechanics with picosecond ultrasonics. Ultrasonics, 2015, 56, 160-171.	3.9	32

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37	Migration and orientation of endothelial cells on micropatterned polymers: A simple model based on classical mechanics. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2015, 20, 1059-1076.	0.9	4
38	Remote optoacoustic probing of single cell adhesion on metallic surfaces. <i>Journal of Biophotonics</i> , 2014, 7, 453-459.	2.3	10
39	Surface morphology and phase transformations of femtosecond laser-processed sapphire. <i>Applied Surface Science</i> , 2014, 288, 313-323.	6.1	22
40	Universality of the network-dynamics of the cell nucleus at high frequencies. <i>Soft Matter</i> , 2014, 10, 8737-8743.	2.7	17
41	Comparison of the Density of Proteins and Peptides Grafted on Silane Layers and Polyelectrolyte Multilayers. <i>Biomacromolecules</i> , 2014, 15, 3706-3716.	5.4	4
42	Chiral Colloids: Homogeneous Suspension of Individualized SiO ₂ Helical and Twisted Nanoribbons. <i>ACS Nano</i> , 2014, 8, 6863-6872.	14.6	47
43	Membrane Nanowaves in Single and Collective Cell Migration. <i>Biophysical Journal</i> , 2014, 106, 361a.	0.5	0
44	Membrane Nanowaves in Single and Collective Cell Migration. <i>PLoS ONE</i> , 2014, 9, e97855.	2.5	3
45	RGD Surface Functionalization of the Hydrophilic Acrylic Intraocular Lens Material to Control Posterior Capsular Opacification. <i>PLoS ONE</i> , 2014, 9, e114973.	2.5	21
46	Bioactive Chemical Nanopatterns Impact Human Mesenchymal Stem Cell Fate. <i>Nano Letters</i> , 2013, 13, 3923-3929.	9.1	31
47	Modulation of Lumen Formation by Microgeometrical Bioactive Cues and Migration Mode of Actin Machinery. <i>Small</i> , 2013, 9, 1086-1095.	10.0	23
48	Laser-Generated GHz Acoustic Waves Reveal a Universal Nuclear Stiffness Probed during Cell Differentiation. <i>Biophysical Journal</i> , 2013, 104, 478a-479a.	0.5	0
49	Effect of BMP-2 from matrices of different stiffnesses for the modulation of stem cell fate. <i>Biomaterials</i> , 2013, 34, 2157-2166.	11.4	108
50	Wetting behaviour of femtosecond laser textured Ti-6Al-4V surfaces. <i>Applied Surface Science</i> , 2013, 265, 688-696.	6.1	187
51	Membrane Nanowaves in Single and Collective Cell Migration. <i>Biophysical Journal</i> , 2013, 104, 147a.	0.5	0
52	Listening to Cells: A Non-Contact Optoacoustic Nanoprobe. <i>Biophysical Journal</i> , 2013, 104, 193a.	0.5	1
53	Influence of Nanohelical Shape and Periodicity on Stem Cell Fate. <i>ACS Nano</i> , 2013, 7, 3351-3361.	14.6	87
54	Pericytes, Stem Cell-Like Cells, but not Mesenchymal Stem Cells are Recruited to Support Microvascular Tube Stabilization. <i>Small</i> , 2013, 9, 3070-3075.	10.0	14

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55	Human saphenous vein endothelial cell adhesion and expansion on micropatterned polytetrafluoroethylene. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 694-703.	4.0	11
56	Insights into the osteoblast precursor differentiation towards mature osteoblasts induced by continuous BMP-2 signaling. <i>Biology Open</i> , 2013, 2, 872-881.	1.2	34
57	Ultrafast laser texturing of Ti-6Al-4V surfaces for biomedical applications. , 2013, , .		7
58	Evaluation of mechanical properties of fixed bone cells with sub-micrometer thickness by picosecond ultrasonics. <i>EPJ Applied Physics</i> , 2013, 61, 11201.	0.7	13
59	Modeling of the migration of endothelial cells on bioactive micropatterned polymers. <i>Mathematical Biosciences and Engineering</i> , 2013, 10, 997-1015.	1.9	7
60	Altered nanofeature size dictates stem cell differentiation. <i>Journal of Cell Science</i> , 2012, 125, 1217-1224.	2.0	73
61	Impact of Peptide Micropatterning on Endothelial Cell Actin Remodeling for Cell Alignment under Shear Stress. <i>Macromolecular Bioscience</i> , 2012, 12, 1648-1659.	4.1	10
62	Impact of RGD Nanopatterns Grafted onto Titanium on Osteoblastic Cell Adhesion. <i>Biomacromolecules</i> , 2012, 13, 896-904.	5.4	32
63	pH-controlled delivery of gentamicin sulfate from orthopedic devices preventing nosocomial infections. <i>Journal of Controlled Release</i> , 2012, 162, 373-381.	9.9	68
64	Peptide immobilization on polyethylene terephthalate surfaces to study specific endothelial cell adhesion, spreading and migration. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 2761-2772.	3.6	44
65	Geometrical Microfeature Cues for Directing Tubulogenesis of Endothelial Cells. <i>PLoS ONE</i> , 2012, 7, e41163.	2.5	49
66	Synthesis of pH-Sensitive Particles for Local Delivery of an Antibiotic via Dispersion ROMP. <i>Macromolecules</i> , 2011, 44, 7879-7887.	4.8	46
67	Picosecond acoustics at 30 GHz in the nucleus of an osteoblast cell. <i>Proceedings of SPIE</i> , 2011, , .	0.8	0
68	The effect of surface energy, adsorbed RGD peptides and fibronectin on the attachment and spreading of cells on multiwalled carbon nanotube papers. <i>Carbon</i> , 2011, 49, 2318-2333.	10.3	13
69	Comparative in vitro Cytotoxicity Toward Human Osteoprogenitor Cells of Polycaprolactones Synthesized from Various Metallic Initiators. <i>Macromolecular Bioscience</i> , 2010, 10, 60-67.	4.1	24
70	Picosecond acoustics in vegetal cells: non invasive in vitro measurements at a sub-cell scale. <i>Physics Procedia</i> , 2010, 3, 323-331.	1.2	2
71	Picosecond acoustics in vegetal cells: Non-invasive in vitro measurements at a sub-cell scale. <i>Ultrasonics</i> , 2010, 50, 202-207.	3.9	27
72	Differentiation of pre-osteoblast cells on poly(ethylene terephthalate) grafted with RGD and/or BMPs mimetic peptides. <i>Biomaterials</i> , 2010, 31, 8245-8253.	11.4	111

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73	Impact of RGD micro-patterns on cell adhesion. Colloids and Surfaces B: Biointerfaces, 2010, 75, 107-114.	5.0	24
74	The effect of RGD density on osteoblast and endothelial cell behavior on RGD-grafted polyethylene terephthalate surfaces. Biomaterials, 2009, 30, 711-720.	11.4	150
75	Synthesis and Crystal Structure of 2,2'-[(Allylimino)diethane-2,1-diyl]bisphthalimide. X-ray Structure Analysis Online, 2009, 25, 55-56.	0.2	1
76	Biointegrating Materials. , 2009, , 1043-1068.		0
77	Influence de la densité de peptides RGD greffés en surface de polyéthylène téréphthalate sur l'attachement des MC3T3. Irbm, 2008, 29, 7-12.	5.6	1
78	Fluorinated Biomaterials for Cardiovascular Surgery. , 2008, , 379-406.		1
79	Picosecond ultrasonics in a single biological cell. , 2008, , .		3
80	<i>In Vitro</i> picosecond ultrasonics in a single cell. Applied Physics Letters, 2008, 93, .	3.3	62
81	Surface Properties of Femtosecond Laser Irradiated Collagen Films. Molecular Crystals and Liquid Crystals, 2008, 486, 250/[1292]-256/[1298].	0.9	2
82	Impact of RGD peptide density grafted onto Poly(ethylene terephthalate) on MC3T3 cell attachment. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5123-6.	0.5	2
83	RGD nanodomains grafting onto titanium surface. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5107-10.	0.5	2
84	RGD peptides grafting onto poly(ethylene terephthalate) with well controlled densities. New Biotechnology, 2007, 24, 477-482.	2.7	55
85	RGD peptides micro-patterning on poly(ethylene terephthalate) surfaces. Irbm, 2007, 28, 2-12.	5.6	3
86	High resolution \hat{z} -imager: a new tool for characterizing 2D peptide distribution on biomimetic materials?. Irbm, 2007, 28, 86-92.	5.6	3
87	Investigation of the cytotoxicity of CCVD carbon nanotubes towards human umbilical vein endothelial cells. Carbon, 2006, 44, 1093-1099.	10.3	101
88	Bioactive molecules for biomimetic materials: Identification of RGD peptide sequences by TOF-SIMS analysis. Applied Surface Science, 2006, 252, 6738-6741.	6.1	8
89	Study of the cytotoxicity of CCVD carbon nanotubes. Journal of Materials Science, 2006, 41, 2411-2416.	3.7	31
90	Strategies and results of atomic force microscopy in the study of cellular adhesion. Micron, 2006, 37, 1-13.	2.2	66

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91	RGD Peptide Grafting onto Micro-patterned PET: Peptide Distribution Impact on Cell Attachment. <i>Journal of Laser Micro Nanoengineering</i> , 2006, 1, 226-230.	0.1	5
92	Mathematical modelling of the distribution of newly formed bone in bone tissue engineering. <i>Biomaterials</i> , 2005, 26, 6788-6797.	11.4	18
93	The effect of cyclo-DfKRG peptide immobilization on titanium on the adhesion and differentiation of human osteoprogenitor cells. <i>Biomaterials</i> , 2005, 26, 6932-6940.	11.4	31
94	Conception, Développement et caractérisation de matériaux bioactifs. <i>IRBM News</i> , 2005, 26, 229-237.	0.1	11
95	Effects of Cyclic RGD Peptide Functionalization on the Quantitative Bone Ingrowth Process in Cellularized Biphasic Calcium Phosphate Ceramics. <i>Key Engineering Materials</i> , 2005, 284-286, 647-650.	0.4	4
96	Biocompatibility Studies of the Anaconda Stent-Graft and Observations of Nitinol Corrosion Resistance. <i>Journal of Endovascular Therapy</i> , 2004, 11, 385-403.	1.5	16
97	Grafting RGD containing peptides onto hydroxyapatite to promote osteoblastic cells adhesion. <i>Journal of Materials Science: Materials in Medicine</i> , 2004, 15, 779-786.	3.6	134
98	Design of new titanium alloys for orthopaedic applications. <i>Medical and Biological Engineering and Computing</i> , 2004, 42, 137-141.	2.8	32
99	Single-pulse KrF laser ablation and nanopatterning in vacuum of Ti-6Al-4V titanium alloys used in biomedical applications. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 79, 811-813.	2.3	31
100	Cyclo-(DfKRG) peptide grafting onto Ti-6Al-4V: physical characterization and interest towards human osteoprogenitor cells adhesion. <i>Biomaterials</i> , 2004, 25, 4837-4846.	11.4	136
101	Grafting of RGD peptides to cellulose to enhance human osteoprogenitor cells adhesion and proliferation. <i>Composites Science and Technology</i> , 2004, 64, 827-837.	7.8	41
102	Ultraviolet laser surface treatment for biomedical applications of Ti titanium alloys: morphological and structural characterization. <i>Applied Physics A: Materials Science and Processing</i> , 2003, 77, 899-904.	2.3	29
103	Des matériaux aux biomatériaux: une conversion qui passe par des modes de développement et de traitement de surface appropriés. <i>Annales De Chimie: Science Des Matériaux</i> , 2003, 28, 109-121.	0.4	2
104	Covalent bonding of collagen on poly(L-lactic acid) by gamma irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003, 207, 165-174.	1.4	49
105	PVDF multifilament yarns grafted with polystyrene induced by γ -irradiation: Influence of the grafting parameters on the mechanical properties. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003, 208, 429-433.	1.4	18
106	Characterization of dynamic cellular adhesion of osteoblasts using atomic force microscopy. , 2003, 54A, 36-47.		53
107	Study of Two Grafting Methods for Obtaining a 3-Aminopropyltriethoxysilane Monolayer on Silica Surface. <i>Journal of Colloid and Interface Science</i> , 2002, 251, 278-283.	9.4	103
108	Ti ⁴⁺ to Ti ³⁺ Conversion of TiO ₂ Uppermost Layer by Low-Temperature Vacuum Annealing: Interest for Titanium Biomedical Applications. <i>Journal of Colloid and Interface Science</i> , 2002, 255, 75-78.	9.4	133

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109	Development of ?heparin-like? polymers using swift heavy ion and gamma radiation. I. Preparation and characterization of the materials. <i>Journal of Biomedical Materials Research Part B</i> , 2000, 52, 119-127.	3.1	26
110	Elaboration of modelized surfaces with well defined microtopochemistryâ€“localization of adsorbed proteins. <i>Colloids and Surfaces B: Biointerfaces</i> , 2000, 17, 205-218.	5.0	3
111	In vitro and in situ intercellular adhesion molecule-1 (ICAM-1) expression by endothelial cells lining a polyester fabric. <i>Biomaterials</i> , 1999, 20, 241-251.	11.4	26
112	Surface treatment of biomaterials by gamma and swift heavy ions grafting. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 151, 404-415.	1.4	12
113	Plasma treatment of expanded PTFE offers a way to a biofunctionalization of its surface. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 151, 255-262.	1.4	56
114	A FTIR and SEM study of PS radiation grafted fluoropolymers: influence of the nature of the ionizing radiation on the film structure. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 151, 377-385.	1.4	30
115	Development of RGD peptides grafted onto silica surfaces: XPS characterization and human endothelial cell interactions. , 1999, 46, 368-375.		80
116	Synthesis of biomaterials by swift heavy ion grafting: Preliminary results of haemocompatibility. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 131, 364-375.	1.4	23