

# Rui Mcs Vilar

## List of Publications by Year in descending order

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62  
papers

1,957  
citations

331259

21  
h-index

253896

43  
g-index

62  
all docs

62  
docs citations

62  
times ranked

2069  
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of a Femtosecond Laser Surface Modification on the Fatigue Behavior of Ti-6Al-4V ELI Alloy. <i>Materials Research</i> , 2019, 22, .	0.6	5
2	Influence of Femtosecond Laser Surface Nanotexturing on the Friction Behavior of Silicon Sliding Against PTFE. <i>Nanomaterials</i> , 2019, 9, 1237.	1.9	7
3	Femtosecond laser microstructured Alumina toughened Zirconia: A new strategy to improve osteogenic differentiation of hMSCs. <i>Applied Surface Science</i> , 2018, 435, 1237-1245.	3.1	47
4	Solvation of AgTFSI in 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide ionic liquid investigated by vibrational spectroscopy and DFT calculations. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 449-456.	1.2	20
5	Structural modifications induced in dentin by femtosecond laser. <i>Journal of Biomedical Optics</i> , 2016, 21, 125007.	1.4	19
6	Mechanisms of the formation of low spatial frequency LIPSS on Ni/Ti reactive multilayers. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 365103.	1.3	26
7	Morphology and structure of particles produced by femtosecond laser ablation of fused silica. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	1.1	4
8	Femtosecond laser ablation of enamel. <i>Journal of Biomedical Optics</i> , 2016, 21, 065005.	1.4	16
9	Femtosecond laser surface texturing of titanium as a method to reduce the adhesion of <i>Staphylococcus aureus</i> and biofilm formation. <i>Applied Surface Science</i> , 2016, 360, 485-493.	3.1	195
10	Electrodeposition of copper thin films from 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 87-93.	1.5	23
11	Human mesenchymal stem cell behavior on femtosecond laser-textured Ti-6Al-4V surfaces. <i>Nanomedicine</i> , 2015, 10, 725-739.	1.7	100
12	Electrodeposition of nanocrystalline copper thin films from 1-ethyl-3-methylimidazolium ethylsulphate ionic liquid. <i>Journal of Applied Electrochemistry</i> , 2014, 44, 189-198.	1.5	16
13	Wetting behaviour of femtosecond laser textured Ti-6Al-4V surfaces. <i>Applied Surface Science</i> , 2013, 265, 688-696.	3.1	187
14	Transformations induced in bulk amorphous silica by ultrafast laser direct writing. <i>Optics Letters</i> , 2013, 38, 4950.	1.7	16
15	Ultrafast laser texturing of Ti-6Al-4V surfaces for biomedical applications. , 2013, , .		7
16	Combinatorial laser-assisted development of novel Ti-Ta alloys for biomedical applications. , 2013, , .		4
17	Isothermal Sections of the U-Fe-Sb Ternary System. <i>Solid State Phenomena</i> , 2012, 194, 21-25.	0.3	2
18	Dry sliding wear behavior of laser clad TiVCrAlSi high entropy alloy coatings on Ti-6Al-4V substrate. <i>Materials &amp; Design</i> , 2012, 41, 338-343.	5.1	238

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19	Femtosecond laser ablation of bovine cortical bone. <i>Journal of Biomedical Optics</i> , 2012, 17, 125005.	1.4	40
20	Laser-assisted development of new Ti-Mo-Zr alloys for biomedical applications. , 2012, , .		1
21	Femtosecond laser ablation of dentin. , 2012, , .		0
22	Laser-assisted synthesis of Ti-Mo alloys for biomedical applications. <i>Materials Science and Engineering C</i> , 2012, 32, 1190-1195.	3.8	60
23	Water stress assessment of cork oak leaves and maritime pine needles based on LIF spectra. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2012, 112, 271-279.	0.2	18
24	Thermal stability and oxidation resistance of laser clad TiCrAlSi high entropy alloy coatings on Ti-6Al-4V alloy. <i>Surface and Coatings Technology</i> , 2011, 206, 1389-1395.	2.2	205
25	Microstructure and properties of laser direct deposited CuNi17Al3Fe1.5Cr alloy. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2011, 18, 325-329.	2.4	6
26	Characterization of (TiB+TiC)/TC4 in situ titanium matrix composites prepared by laser direct deposition. <i>Journal of Materials Processing Technology</i> , 2011, 211, 597-601.	3.1	53
27	Electrodeposition of black chromium spectrally selective coatings from a Cr(III)-ionic liquid solution. <i>Thin Solid Films</i> , 2011, 519, 1845-1850.	0.8	31
28	Active methods of early forest fire detection. , 2010, , .		0
29	Shear bond strength of adhesive to KrF excimer laser treated enamel. <i>International Journal of Abrasive Technology</i> , 2010, 3, 133.	0.2	0
30	Finite element analysis of the rapid manufacturing of Ti-6Al-4V parts by laser powder deposition. <i>Scripta Materialia</i> , 2010, 63, 140-143.	2.6	56
31	Microstructure and anti-oxidation behavior of laser clad Ni-20Cr coating on molybdenum surface. <i>Surface and Coatings Technology</i> , 2010, 205, 835-840.	2.2	22
32	Bond Strength of an Etch-and-Rinse Adhesive to KrF Excimer Laser-Treated Dentin. <i>Photomedicine and Laser Surgery</i> , 2010, 28, 97-102.	2.1	4
33	Evaluation of oil spills by laser induced fluorescence spectra. <i>Proceedings of SPIE</i> , 2010, , .	0.8	9
34	Laser-assisted development of titanium alloys: the search for new biomedical materials. , 2010, , .		2
35	Colorimeter and Scanning Electron Microscopy Analysis of Teeth Submitted to Internal Bleaching. <i>Journal of Endodontics</i> , 2010, 36, 334-337.	1.4	15
36	Laser rangefinder architecture as a cost-effective platform for lidar fire surveillance. <i>Optics and Laser Technology</i> , 2009, 41, 862-870.	2.2	13

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37	Laser powder deposition. Rapid Prototyping Journal, 2009, 15, 264-279.	1.6	106
38	Micro-to-Nano Indentation and Scratch Hardness in the Ni-Co System: Depth Dependence and Implications for Tribological Behavior. Tribology Letters, 2008, 31, 177-185.	1.2	30
39	Modeling of phase transformations and internal stresses in laser powder deposition. Proceedings of SPIE, 2008, , .	0.8	6
40	On the Structural Diversity of Sialoliths. Microscopy and Microanalysis, 2007, 13, 390-396.	0.2	11
41	Laser cladding of Al-Si/SiC composite coatings: Microstructure and abrasive wear behavior. , 2007, , .		0
42	Neural networks for supervised classification of lidar signals at forest-fire surveillance. Forest Ecology and Management, 2006, 234, S38.	1.4	5
43	Laser cladding of Cu-NbC nanocomposite coatings. , 2006, , .		0
44	Evaluation of smoke dispersion from forest fire plumes using lidar experiments and modelling. International Journal of Thermal Sciences, 2006, 45, 848-859.	2.6	36
45	Application of rangefinder for small forest fire detection. , 2006, 6359, 259.		2
46	Surface Texture Development in KrF Excimer Laser Ablation of Dentin. Materials Science Forum, 2006, 514-516, 1068-1072.	0.3	4
47	Using Atomic Force Microscopy to Retrieve Nanomechanical Surface Properties of Materials. Materials Science Forum, 2006, 514-516, 1598-1602.	0.3	6
48	Osteoblast Proliferation and Morphology Analysis on Laser Modified Hydroxyapatite Surfaces: Preliminary Results. Key Engineering Materials, 2006, 309-311, 105-108.	0.4	1
49	Finite element analysis of laser powder deposition of titanium. , 2006, , .		6
50	Characterisation of dentin surfaces processed with KrF excimer laser radiation. Biomaterials, 2005, 26, 6780-6787.	5.7	31
51	Study of laser developed Al-Cr surface alloys: Microstructure, mechanical and wear behavior. , 2005, , .		0
52	Column growth mechanisms during KrF laser micromachining of Al <sub>2</sub> O <sub>3</sub> -TiC. , 2005, , .		1
53	Eye-safe lidar measurements for detection and investigation of forest-fire smoke. International Journal of Wildland Fire, 2004, 13, 401.	1.0	12
54	Niobium and chromium rich coatings tailored by laser alloying: XRD analysis at high temperatures. Materials Research, 2004, 7, 49-52.	0.6	8

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55	Laser surface modification of hydroxyapatite and glass-reinforced hydroxyapatite. <i>Biomaterials</i> , 2004, 25, 4607-4614.	5.7	26
56	Feasibility of forest-fire smoke detection using lidar. <i>International Journal of Wildland Fire</i> , 2003, 12, 159.	1.0	36
57	A Simplified Semi-Empirical Method to Select the Processing Parameters for Laser Clad Coatings. <i>Materials Science Forum</i> , 2003, 414-415, 385-394.	0.3	46
58	Laser Alloying and Laser Cladding. <i>Materials Science Forum</i> , 1999, 301, 229-252.	0.3	77
59	Microstructure and Abrasive Wear Studies of Laser Clad Al-Si/SiC Composite Coatings. <i>Materials Science Forum</i> , 0, 537-538, 89-95.	0.3	0
60	Microstructure Characterization of Laser Clad TiVCrAlSi High Entropy Alloy Coating on Ti-6Al-4V Substrate. <i>Advanced Materials Research</i> , 0, 154-155, 621-625.	0.3	9
61	Optimization of Laser Deposited Ni-Based Single Crystal Superalloys Microstructure. <i>Advanced Materials Research</i> , 0, 154-155, 1405-1414.	0.3	24
62	Structure of NiCrAlY Coatings Deposited on Oriented Single Crystal Superalloy Substrates by Laser Cladding. <i>Advanced Materials Research</i> , 0, 278, 503-508.	0.3	7