

# Rogã©rio Colaco

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5042880/publications.pdf>

Version: 2024-02-01

118  
papers

3,308  
citations

117453

34  
h-index

174990

52  
g-index

119  
all docs

119  
docs citations

119  
times ranked

3532  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wear of zirconia/leucite glass-ceramics composites: A chewing simulator study. <i>Ceramics International</i> , 2022, 48, 4604-4613.	2.3	2
2	Development of polycarbonate urethane-based materials with controlled diclofenac release for cartilage replacement. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, 110, 1839-1852.	1.6	1
3	PVA-Based Hydrogels Loaded with Diclofenac for Cartilage Replacement. <i>Gels</i> , 2022, 8, 143.	2.1	21
4	Surface Characterization and Performance Evaluation of Nitrogen Implanted Coinage Dies. <i>Processes</i> , 2022, 10, 479.	1.3	0
5	Alternative Clinker Technologies for Reducing Carbon Emissions in Cement Industry: A Critical Review. <i>Materials</i> , 2022, 15, 209.	1.3	29
6	Biodegradable Iron and Porous Iron: Mechanical Properties, Degradation Behaviour, Manufacturing Routes and Biomedical Applications. <i>Journal of Functional Biomaterials</i> , 2022, 13, 72.	1.8	15
7	Polyaniline-polycaprolactone fibers for neural applications: Electroconductivity enhanced by pseudo-doping. <i>Materials Science and Engineering C</i> , 2021, 120, 111680.	3.8	23
8	Electrical stimulation of neural-differentiating iPSCs on novel coaxial electroconductive nanofibers. <i>Biomaterials Science</i> , 2021, 9, 5359-5382.	2.6	16
9	Effect of albumin, urea, lysozyme and mucin on the triboactivity of Ti6Al4V/zirconia pair used in dental implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 118, 104451.	1.5	9
10	A review on alternative lubricants: Ionic liquids as additives and deep eutectic solvents. <i>Journal of Molecular Liquids</i> , 2021, 333, 116004.	2.3	34
11	The Apparent Activation Energy of a Novel Low-Calcium Silicate Hydraulic Binder. <i>Materials</i> , 2021, 14, 5347.	1.3	5
12	Langmuir Films of Perfluorinated Fatty Alcohols: Evidence of Spontaneous Formation of Solid Aggregates at Zero Surface Pressure and Very Low Surface Density. <i>Nanomaterials</i> , 2020, 10, 2257.	1.9	5
13	A State-of-the-Art Review on the Wear of the Occlusal Surfaces of Natural Teeth and Prosthetic Crowns. <i>Materials</i> , 2020, 13, 3525.	1.3	23
14	Nanostructured c-Si surfaces obtained by sequential ion implantation of C+ and Ti+: Tribophysical and structural characterization. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2020, 471, 69-75.	0.6	0
15	Picolinium-Based Hydrophobic Ionic Liquids as Additives to PEG200 to Lubricate Steel-Silicon Contacts. <i>ChemistrySelect</i> , 2020, 5, 5864-5872.	0.7	5
16	Improving the Lubrication of Silicon Surfaces Using Ionic Liquids as Oil Additives: The Effect of Sulfur-Based Functional Groups. <i>Tribology Letters</i> , 2020, 68, 1.	1.2	6
17	Tribological performance of the pair human teeth vs 3D printed zirconia: An in vitro chewing simulation study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103900.	1.5	12
18	Nanoscale wear of hard materials: An overview. <i>Current Opinion in Colloid and Interface Science</i> , 2020, 47, 118-125.	3.4	11

#	ARTICLE	IF	CITATIONS
19	Suitability of 3D printed pieces of nanocrystalline zirconia for dental applications. <i>Dental Materials</i> , 2020, 36, 442-455.	1.6	57
20	Tough and Low Friction Polyvinyl Alcohol Hydrogels Loaded with Anti-inflammatories for Cartilage Replacement. <i>Lubricants</i> , 2020, 8, 36.	1.2	16
21	Hydrophobic ionic liquids at liquid and solid interfaces. <i>Tribology International</i> , 2019, 129, 459-467.	3.0	5
22	Tribological Behavior of Restorative Dental Microcomposites After Exposure to Mouth Acids. <i>Tribology Letters</i> , 2019, 67, 1.	1.2	2
23	Tribomechanical Comparison between PVA Hydrogels Obtained Using Different Processing Conditions and Human Cartilage. <i>Materials</i> , 2019, 12, 3413.	1.3	40
24	Deep eutectic solvents (DES) based on sulfur as alternative lubricants for silicon surfaces. <i>Journal of Molecular Liquids</i> , 2019, 295, 111728.	2.3	21
25	Optimization of intraocular lens hydrogels for dual drug release: Experimentation and modelling. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2019, 141, 51-57.	2.0	12
26	Moxifloxacin-loaded acrylic intraocular lenses: In vitro and in vivo performance. <i>Journal of Cataract and Refractive Surgery</i> , 2019, 45, 1808-1817.	0.7	16
27	Influence of Pseudowollastonite on the Performance of Low Calcium Amorphous Hydraulic Binders. <i>Materials</i> , 2019, 12, 3457.	1.3	3
28	Influence of contact configuration and lubricating conditions on the microtriboactivity of the zirconia-Ti6Al4V pair used in dental applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 91, 164-173.	1.5	20
29	Formation of nanocrystalline tobermorite in calcium silicate binders with low C/S ratio. <i>Acta Materialia</i> , 2018, 152, 7-15.	3.8	40
30	Alkali activation of a novel calcium-silicate hydraulic binder with $\text{CaO/SiO}_2 = 1.1$ . <i>Journal of the American Ceramic Society</i> , 2018, 101, 4158-4170.	1.9	10
31	Sterilization of hydrogels for biomedical applications: A review. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2472-2492.	1.6	102
32	Drug-eluting silicone hydrogel for therapeutic contact lenses: Impact of sterilization methods on the system performance. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 161, 537-546.	2.5	30
33	Drug delivery to the eye anterior chamber by intraocular lenses: An in vivo concentration estimation model. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 133, 63-69.	2.0	16
34	Drug release from liposome coated hydrogels for soft contact lenses: the blinking and temperature effect. , 2017, 105, 1799-1807.		13
35	Controlled release of moxifloxacin from intraocular lenses modified by Ar plasma-assisted grafting with AMPS or SBMA: An in vitro study. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 156, 95-103.	2.5	19
36	Sterilization of silicone-based hydrogels for biomedical application using ozone gas: Comparison with conventional techniques. <i>Materials Science and Engineering C</i> , 2017, 78, 389-397.	3.8	21

#	ARTICLE	IF	CITATIONS
37	Imidazolium-based ionic liquids used as additives in the nanolubrication of silicon surfaces. Beilstein Journal of Nanotechnology, 2017, 8, 1961-1971.	1.5	21
38	Diffusion-Based Design of Multi-Layered Ophthalmic Lenses for Controlled Drug Release. PLoS ONE, 2016, 11, e0167728.	1.1	9
39	About the Sterilization of Chitosan Hydrogel Nanoparticles. PLoS ONE, 2016, 11, e0168862.	1.1	36
40	Nanoscale triboactivity of functionalized c-Si surfaces by Fe <sup>+</sup> ion implantation. Journal of Physics Condensed Matter, 2016, 28, 134003.	0.7	1
41	Novel high-resistance clinkers with 1.10<math>CaO/SiO_2</math>1.25: production route and preliminary hydration characterization. Cement and Concrete Research, 2016, 85, 39-47.	4.6	9
42	Task-specific Ionic Liquids Based on Sulfur for Tribological Applications. ChemistrySelect, 2016, 1, 3612-3617.	0.7	11
43	Controlled drug release from hydrogels for contact lenses: Drug partitioning and diffusion. International Journal of Pharmaceutics, 2016, 515, 467-475.	2.6	44
44	Simulation of the hydrodynamic conditions of the eye to better reproduce the drug release from hydrogel contact lenses: experiments and modeling. Drug Delivery and Translational Research, 2016, 6, 755-762.	3.0	21
45	Controlled Release of Antibiotics From Vitamin E-Loaded Silicone-Hydrogel Contact Lenses. Journal of Pharmaceutical Sciences, 2016, 105, 1164-1172.	1.6	59
46	Structural characterization of dual ion implantation in silicon. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 39-43.	0.6	4
47	Effect of plasma treatment on the performance of two drug-loaded hydrogel formulations for therapeutic contact lenses. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1059-1068.	1.6	15
48	About the effect of eye blinking on drug release from pHEMA-based hydrogels: an <i>in vitro</i> study. Journal of Biomaterials Science, Polymer Edition, 2015, 26, 235-251.	1.9	21
49	Novel ionic liquids for interfacial and tribological applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 472, 1-8.	2.3	36
50	From lime to silica and alumina: systematic modeling of cement clinkers using a general force-field. Physical Chemistry Chemical Physics, 2015, 17, 18477-18494.	1.3	16
51	Microstructural control and hydration of novel micro-dendritic clinkers with $CaO/SiO_2 = 1.4$ . Cement and Concrete Research, 2015, 76, 212-221.	4.6	16
52	The effect of albumin and cholesterol on the biotribological behavior of hydrogels for contact lenses. Acta Biomaterialia, 2015, 26, 184-194.	4.1	37
53	From Nano and Microcontacts to Wear of Materials. Nanoscience and Technology, 2015, , 517-543.	1.5	1
54	Steel for Civil Construction. , 2015, , 273-302.		0

#	ARTICLE	IF	CITATIONS
55	Comparison of two hydrogel formulations for drug release in ophthalmic lenses. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1170-1180.	1.6	39
56	Microstructure and nanomechanical properties of Fe+ implanted silicon. Applied Surface Science, 2013, 284, 533-539.	3.1	7
57	Moisture Absorption in Ionic Liquid Films. Journal of Physical Chemistry C, 2013, 117, 10454-10463.	1.5	16
58	Atomic Force Microscopy in Bioengineering Applications. Nanoscience and Technology, 2012, , 397-430.	1.5	1
59	Effect of Albumin Adsorption on Biotribological Properties of Artificial Joint Materials. ACS Symposium Series, 2012, , 497-523.	0.5	4
60	Formation of an intact liposome layer adsorbed on oxidized gold confirmed by three complementary techniques: QCM-D, AFM and confocal fluorescence microscopy. Surface and Interface Analysis, 2012, 44, 426-433.	0.8	56
61	Biomaterials research at NanoLab(IST): Seeding seeds for the future. , 2011, , .		0
62	Microstructures and magnetic domain configurations of NdFe <sub>11</sub> Ti and Nd <sub>2</sub> (Fe,Ti) <sub>17</sub> aggregates. Applied Physics A: Materials Science and Processing, 2011, 104, 1053-1060.	1.1	4
63	Effect of alkyl chain length on the adsorption and frictional behaviour of 1-alkyl-3-methylimidazolium chloride ionic liquid surfactants on gold surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 377, 361-366.	2.3	15
64	Ageing effects on the wettability behavior of laser textured silicon. Applied Surface Science, 2011, 257, 2604-2609.	3.1	16
65	Dislocation structures in nanoindented ductile metals—a transmission electron microscopy direct observation. Journal Physics D: Applied Physics, 2011, 44, 335402.	1.3	12
66	On the influence of indentation size effect on the wear of metallic alloys. International Journal of Surface Science and Engineering, 2011, 5, 457.	0.4	1
67	Adsorption of albumin and sodium hyaluronate on UHMWPE: A QCM-D and AFM study. Colloids and Surfaces B: Biointerfaces, 2010, 78, 1-7.	2.5	50
68	Characterization of two DLC coatings for joint prosthesis: The role of albumin on the tribological behavior. Surface and Coatings Technology, 2010, 204, 3451-3458.	2.2	27
69	Response to "Comment on: On the stability of bubbles trapped at a solid-liquid interface: A thermodynamical approach" by J. Seddon and H. Zandvliet. Surface Science, 2010, 604, 478-479.	0.8	3
70	The role of indentation size effect on the abrasive wear behaviour of ductile metallic materials: A nanotribological study. Wear, 2010, 268, 931-938.	1.5	12
71	Micro-to-nano triboactivity of hydrogenated DLC films. Journal Physics D: Applied Physics, 2009, 42, 085307.	1.3	14
72	Magnetic domain morphologies and wall energy in YFe <sub>11</sub> Ti crystals. Materials Characterization, 2009, 60, 1607-1612.	1.9	2

#	ARTICLE	IF	CITATIONS
73	On the stability of bubbles trapped at a solid-liquid interface: A thermodynamical approach. <i>Surface Science</i> , 2009, 603, 2870-2873.	0.8	17
74	Laser-assisted combinatorial methods for rapid design of wear resistant iron alloys. <i>Surface and Coatings Technology</i> , 2009, 203, 2878-2885.	2.2	16
75	A comparative study of titanium nitrides, TiN, TiN <sub>2</sub> and TiCN, as coatings for biomedical applications. <i>Surface and Coatings Technology</i> , 2009, 203, 3701-3707.	2.2	182
76	An AFM study of single-contact abrasive wear: The Rabinowicz wear equation revisited. <i>Wear</i> , 2009, 267, 1772-1776.	1.5	35
77	Magnetic microstructure of YFe <sub>11</sub> Ti aggregates. <i>Journal of Alloys and Compounds</i> , 2009, 487, 11-17.	2.8	6
78	Micro-to-Nano Indentation and Scratch Hardness in the Ni-Co System: Depth Dependence and Implications for Tribological Behavior. <i>Tribology Letters</i> , 2008, 31, 177-185.	1.2	30
79	Bovine serum albumin adsorption onto 316L stainless steel and alumina: a comparative study using depletion, protein radiolabeling, quartz crystal microbalance and atomic force microscopy. <i>Surface and Interface Analysis</i> , 2008, 40, 1529-1537.	0.8	52
80	The effect of roughness on the tribological behavior of the prosthetic pair UHMWPE/TiN-coated stainless steel. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2008, 84B, 98-107.	1.6	14
81	Adhesion forces in liquid media: Effect of surface topography and wettability. <i>Journal of Colloid and Interface Science</i> , 2008, 325, 573-579.	5.0	28
82	A displacement sensing nanoindentation study of tribo-mechanical properties of the Ni-Co system. <i>Applied Surface Science</i> , 2008, 254, 7306-7313.	3.1	10
83	Nanoscale triboactivity: The response of Mo-Se-C coatings to sliding. <i>Acta Materialia</i> , 2008, 56, 5101-5111.	3.8	50
84	Determination of dislocation density from hardness measurements in metals. <i>Materials Letters</i> , 2008, 62, 3812-3814.	1.3	81
85	Tribological behaviour of Cl-implanted TiN coatings for biomedical applications. <i>Wear</i> , 2007, 262, 1337-1345.	1.5	28
86	Microstructure and wear studies of laser clad Al-Si/SiC(p) composite coatings. <i>Surface and Coatings Technology</i> , 2007, 201, 9497-9505.	2.2	101
87	Indentation size effect in nickel and cobalt laser clad coatings. <i>Surface and Coatings Technology</i> , 2007, 202, 538-548.	2.2	37
88	Nanoabrasive wear induced by an AFM diamond tip on stainless steel. <i>Wear</i> , 2007, 263, 1579-1584.	1.5	37
89	Simulation of KrF laser ablation of Al <sub>2</sub> O <sub>3</sub> -TiC. <i>Applied Surface Science</i> , 2007, 253, 7585-7590.	3.1	5
90	Wear of ceramic coated metal-on-metal bearings used for hip replacement. <i>Wear</i> , 2007, 263, 1060-1065.	1.5	34

#	ARTICLE	IF	CITATIONS
91	An energy-based model for the wear of UHMWPE. Tribology Letters, 2007, 26, 119-124.	1.2	27
92	Surface-Damage Mechanisms: from Nano- and Microcontacts to Wear of Materials. Nanoscience and Technology, 2007, , 453-480.	1.5	8
93	Abrasive wear behaviour of laser clad and flame sprayed-melted NiCrBSi coatings. Surface and Coatings Technology, 2006, 200, 6854-6862.	2.2	198
94	Friction and wear mechanisms in hip prosthesis: Comparison of joint materials behaviour in several lubricants. Wear, 2006, 260, 149-158.	1.5	159
95	A comparative study of the wear behaviour of sintered and laser surface melted AISI M42 high speed steel diluted with iron. Wear, 2006, 260, 949-956.	1.5	39
96	Adsorption of albumin on prosthetic materials: Implication for tribological behavior. Journal of Biomedical Materials Research - Part A, 2006, 78A, 581-589.	2.1	96
97	Using Atomic Force Microscopy to Retrieve Nanomechanical Surface Properties of Materials. Materials Science Forum, 2006, 514-516, 1598-1602.	0.3	6
98	On the influence of retained austenite in the abrasive wear behaviour of a laser surface melted tool steel. Wear, 2005, 258, 225-231.	1.5	88
99	Laser Cladding Applications to Combinatorial Materials Science. , 2005, , 290-299.		0
100	Tribological Properties of Laser Processed Fe-Cr-C Alloys. Materials Science Forum, 2005, 473-474, 53-58.	0.3	2
101	Stabilisation of retained austenite in laser surface melted tool steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 385, 123-127.	2.6	44
102	Stabilisation of retained austenite in laser surface melted tool steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 385, 123-127.	2.6	46
103	Production of glassy metallic layers by laser surface treatment. Scripta Materialia, 2003, 48, 281-286.	2.6	83
104	Abrasive wear of metallic matrix reinforced materials. Wear, 2003, 255, 643-650.	1.5	64
105	A model for the abrasive wear of metallic matrix particle-reinforced materials. Wear, 2003, 254, 625-634.	1.5	64
106	Laser Surface Treatment of Sintered M42 High-Speed Steel Diluted with Iron. Materials Science Forum, 2003, 426-432, 2575-2580.	0.3	3
107	Development of New Coating Materials using a Laser Rapid-Alloy-Prototyping-Technique. Materials Science Forum, 2003, 414-415, 57-62.	0.3	4
108	Laser rapid-alloy prototyping for the development of wear resistant Fe-Cr-C/NbC composite materials. Journal of Laser Applications, 2003, 15, 267-272.	0.8	18

#	ARTICLE	IF	CITATIONS
109	Corrosion behaviour of steels after laser surface melting. <i>Materials &amp; Design</i> , 2000, 21, 441-445.	5.1	85
110	Development of metal matrix composite materials for wear resistant coatings using a laser rapid-alloy-prototyping technique. , 2000, , .		0
111	The contact mechanics of cellular solids. <i>Wear</i> , 1999, 230, 1-10.	1.5	14
112	Deposition of NbC thin films by pulsed laser ablation. <i>Applied Physics A: Materials Science and Processing</i> , 1999, 69, S569-S571.	1.1	17
113	Laser cladding of aluminium-base quasicrystalline alloys. <i>Scripta Materialia</i> , 1999, 40, 551-557.	2.6	31
114	Influence of the processing conditions on the abrasive wear behaviour of a laser surface melted tool steel. <i>Scripta Materialia</i> , 1999, 41, 715-721.	2.6	52
115	Title is missing!. <i>Journal of Materials Science Letters</i> , 1998, 17, 563-567.	0.5	57
116	Effect of Laser Surface Melting on the Tempering Behaviour of Din X42Cr13 Stainless Tool Steel. <i>Scripta Materialia</i> , 1997, 38, 107-113.	2.6	41
117	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
118	Wettability and Nanotribological Response of Silicon Surfaces Functionalized by Ion Implantation. <i>Materials Science Forum</i> , 0, 730-732, 257-262.	0.3	1