

Miguel A MonclÃ³s

List of Publications by Year in descending order

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64
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1,580
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331259

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docs citations

64
times ranked

2150
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective Metal Ion Irradiation Using Bipolar HIPIMS: A New Route to Tailor Film Nanostructure and the Resulting Mechanical Properties. <i>Coatings</i> , 2022, 12, 191.	1.2	3
2	Resilient moth-eye nanoimprinted antireflective and self-cleaning TiO ₂ sputter-coated PMMA films. <i>Applied Surface Science</i> , 2022, 585, 152653.	3.1	10
3	High temperature strength retention of Cu/Nb nanolaminates through dynamic strain ageing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 799, 140117.	2.6	3
4	Nanoindentation of Amorphous Carbon: a combined experimental and simulation approach. <i>Acta Materialia</i> , 2021, 203, 116485.	3.8	23
5	Bioinspired antireflective flexible films with optimized mechanical resistance fabricated by roll to roll thermal nanoimprint. <i>Scientific Reports</i> , 2021, 11, 2419.	1.6	21
6	Anisotropy effect of bioinspired ceramic/ceramic composites: Can the platelet orientation enhance the mechanical properties at micro- and submicrometric length scale?. <i>Journal of the European Ceramic Society</i> , 2021, 41, 2753-2762.	2.8	9
7	High temperature in situ SEM assessment followed by ex situ AFM and EBSD investigation of the nucleation and early growth stages of Fe-Al intermetallics. <i>Scripta Materialia</i> , 2021, 200, 113910.	2.6	14
8	Tribomechanical properties of hard Cr-doped DLC coatings deposited by low-frequency HiPIMS. <i>Surface and Coatings Technology</i> , 2020, 382, 124899.	2.2	66
9	Stronger aramids through molecular design and nanoprocessing. <i>Polymer Chemistry</i> , 2020, 11, 1489-1495.	1.9	4
10	The sensitivity of the microstructure and properties to the peak temperature in an ultrafast heat treated low carbon-steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 776, 138999.	2.6	7
11	High strain rate compression of epoxy micropillars. <i>Extreme Mechanics Letters</i> , 2020, 40, 100905.	2.0	7
12	High temperature mechanical properties and microstructure of hard TaSiN coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 139976.	2.6	8
13	Corrosion behavior of diverse sputtered coatings for the helium cooled pebbles bed (HCPB) breeder concept. <i>Nuclear Materials and Energy</i> , 2020, 25, 100795.	0.6	7
14	Effect of nanoscale δ precipitation on slip activity in ultrastrong beta titanium alloys. <i>Materials Letters</i> , 2020, 264, 127398.	1.3	8
15	Key Ionic Electrolytes for Highly Self-Stable Light-Emitting Electrochemical Cells Based on Ir(III) Complexes. <i>Advanced Optical Materials</i> , 2020, 8, 2000295.	3.6	18
16	Biogenic fluorescent protein-silk fibroin phosphors for high performing light-emitting diodes. <i>Materials Horizons</i> , 2020, 7, 1790-1800.	6.4	18
17	Strengthening Mechanisms of Ni-Co-Cr Alloys via Nanotwins and Nanophases. <i>Minerals, Metals and Materials Series</i> , 2020, , 619-628.	0.3	2
18	The effect of soaking time after ultrafast heating on the microstructure and mechanical behavior of a low carbon steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 765, 138276.	2.6	7

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19	Effect of solute content and temperature on the deformation mechanisms and critical resolved shear stress in Mg-Al and Mg-Zn Alloys. <i>Acta Materialia</i> , 2019, 170, 155-165.	3.8	67
20	Nanoindentation mapping of multiscale composites of graphene-reinforced polypropylene and carbon fibres. <i>Composites Science and Technology</i> , 2019, 169, 151-157.	3.8	22
21	The influence of positive pulses on HiPIMS deposition of hard DLC coatings. <i>Surface and Coatings Technology</i> , 2019, 358, 43-49.	2.2	52
22	High Temperature Nanomechanical Testing. , 2019, , 2219-2247.		1
23	Enhanced strain rate sensitivity of Zr-based bulk metallic glasses subjected to high pressure torsion. <i>Journal of Alloys and Compounds</i> , 2018, 747, 595-602.	2.8	45
24	High Temperature Nanomechanical Testing. , 2018, , 1-29.		5
25	Effect of layer thickness on the mechanical behaviour of oxidation-strengthened Zr/Nb nanoscale multilayers. <i>Journal of Materials Science</i> , 2018, 53, 5860-5878.	1.7	17
26	Tensile deformation and fracture mechanisms of Cu/Nb nanolaminates studied by in situ TEM mechanical tests. <i>Extreme Mechanics Letters</i> , 2018, 25, 60-65.	2.0	26
27	Single-imprint moth-eye anti-reflective and self-cleaning film with enhanced resistance. <i>Nanoscale</i> , 2018, 10, 15496-15504.	2.8	38
28	Adhesion enhancement of DLC hard coatings by HiPIMS metal ion etching pretreatment. <i>Surface and Coatings Technology</i> , 2018, 349, 787-796.	2.2	48
29	Effect of Ultrafast Heating on the Properties of the Microconstituents in a Low-Carbon Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 3145-3150.	1.1	12
30	Influence of temperature on the strain rate sensitivity and deformation mechanisms of nanotwinned Cu. <i>Scripta Materialia</i> , 2018, 154, 54-59.	2.6	14
31	Multifunctional Nano-engineered Polymer Surfaces with Enhanced Mechanical Resistance and Superhydrophobicity. <i>Scientific Reports</i> , 2017, 7, 43450.	1.6	17
32	Deformation Mechanism Map of Cu/Nb Nanoscale Metallic Multilayers as a Function of Temperature and Layer Thickness. <i>Jom</i> , 2017, 69, 2214-2226.	0.9	41
33	Selective oxidation-induced strengthening of Zr/Nb nanoscale multilayers. <i>Acta Materialia</i> , 2017, 122, 1-10.	3.8	30
34	Ultra-fine grained pure Titanium for biomedical applications. <i>Materials Technology</i> , 2016, 31, 756-771.	1.5	20
35	High Temperature Nanoindentation Response of RTM6 Epoxy Resin at Different Strain Rates. <i>Experimental Mechanics</i> , 2015, 55, 851-862.	1.1	14
36	Global and local deformation behavior and mechanical properties of individual phases in a quenched and partitioned steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 630, 27-35.	2.6	55

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37	Tip shape effect on hot nanoindentation hardness and modulus measurements. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1513-1519.	1.1	21
38	Influence of the IR-mirror layer composition in the mechanical properties of solar selective coatings made from Mo:Si ₃ N ₄ cermet. Thin Solid Films, 2014, 571, 316-320.	0.8	2
39	Deformation behavior of a high strength multiphase steel at macro- and micro-scales. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 611, 201-211.	2.6	53
40	Microstructure and mechanical properties of physical vapor deposited Cu/W nanoscale multilayers: Influence of layer thickness and temperature. Thin Solid Films, 2014, 571, 275-282.	0.8	51
41	Biaxial Deformation Behavior and Enhanced Formability of Ultrafine-Grained Pure Copper. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2399-2408.	1.1	20
42	Optimum high temperature strength of two-dimensional nanocomposites. APL Materials, 2013, 1, .	2.2	43
43	Observations on interphase characterisation in polymer composites by nanoscale indentation and use of AFM cantilever torsion to identify measurement artefacts. Plastics, Rubber and Composites, 2012, 41, 240-246.	0.9	11
44	In search of validated measurements of the properties of viscoelastic materials by indentation with sharp indenters. Philosophical Magazine, 2011, 91, 1308-1328.	0.7	19
45	The use of the PeakForce TM quantitative nanomechanical mapping AFM-based method for high-resolution Young's modulus measurement of polymers. Measurement Science and Technology, 2011, 22, 125703.	1.4	276
46	Formation and mechanical characterisation of SU8 composite films reinforced with horizontally aligned and high volume fraction CNTs. Composites Science and Technology, 2011, 71, 1301-1308.	3.8	15
47	Accelerated testing of creep in polymeric materials using nanoindentation. Polymer Testing, 2011, 30, 366-371.	2.3	21
48	AFM indentation method used for elastic modulus characterization of interfaces and thin layers. Journal of Materials Science, 2010, 45, 3190-3197.	1.7	51
49	Development of a low temperature amorphous Si/Ti for integrated MEMS/NEMS. Microelectronic Engineering, 2010, 87, 1259-1262.	1.1	1
50	A study of the nanostructure and hardness of electron beam evaporated TiAlBN Coatings. Thin Solid Films, 2010, 518, 4273-4280.	0.8	15
51	Hard and superhard TiAlBN coatings deposited by twin electron-beam evaporation. Surface and Coatings Technology, 2007, 201, 6078-6083.	2.2	36
52	Nanostructural studies of PVD TiAlB coatings. Surface and Interface Analysis, 2006, 38, 731-735.	0.8	9
53	Investigation of the nanostructure and post-coat thermal treatment of wear-resistant PVD CrTiCuBN coatings. Surface and Coatings Technology, 2005, 200, 310-314.	2.2	10
54	The effect of nitrogen partial pressure on the bonding in sputtered CN _x films: implications for formation of γ -C ₃ N ₄ . Surface and Coatings Technology, 2000, 131, 488-492.	2.2	14

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55	Penning type magnetron sputtering source and its use in the production of carbon nitride coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 62-69.	0.9	9
56	Electrical properties of reactively sputtered CNx films. Thin Solid Films, 1999, 341, 94-100.	0.8	35
57	Electrical properties of reactively sputtered carbon nitride films. Surface and Coatings Technology, 1999, 116-119, 54-58.	2.2	13
58	Investigation of the valence band states of reactively sputtered carbon nitride films. Thin Solid Films, 1999, 355-356, 79-84.	0.8	17
59	Effect of substrate bias on the bonding structure of carbon nitride thin films. Thin Solid Films, 1999, 355-356, 85-88.	0.8	15
60	Stress behaviour of reactively sputtered nitrogenated carbon films. Surface and Coatings Technology, 1998, 98, 985-990.	2.2	1
61	The use of refractive index as a measure of diamond-like carbon film quality. Diamond and Related Materials, 1998, 7, 432-434.	1.8	31
62	The composition and bonding structure of CNx films and their influence on the mechanical properties. Thin Solid Films, 1997, 308-309, 130-134.	0.8	25
63	Enhanced Mechanical and Thermal Resistances of Nanoimprinted Antireflective Eye Surfaces Based on Poly Vinylidene Fluoride/TiO ₂ Surface Nanocomposites. Advanced Engineering Materials, 0, , 2100603.	1.6	2
64	Quantifying the Uncertainty of Critical Resolved Shear Stress Values Derived from Nano-Indentation in Hexagonal Ti Alloys. Experimental Mechanics, 0, , 1.	1.1	5