Daniel Crespo

List of Publications by Year
in descending order

Version: 2024-02-01

130 papers	3,076 citations	172207 29 h-index	182168 51 g-index
133 all docs	133 docs citations	133 times ranked	2768 citing authors

#	Article	IF	Citations
1	Comprehensive insights into the thermal and mechanical effects of metallic glasses via creep. Journal of Materials Science and Technology, 2022, 99, 39-47.	5.6	9
2	Analysis of the anelastic deformation of high-entropy Pd20Pt20Cu20Ni20P20 metallic glass under stress relaxation and recovery. Journal of Materials Science and Technology, 2022, 107, 82-91.	5.6	8
3	Nanoporous Copper Ribbons Prepared by Chemical Dealloying of a Melt-Spun ZnCu Alloy. Journal of Physical Chemistry C, 2022, 126, 212-226.	1.5	9
4	Simplistic correlations between molecular electronic properties and inhibition efficiencies: Do they really exist?. Corrosion Science, 2021, 179, 108856.	3.0	86
5	Inelastic deformation of metallic glasses under dynamic cyclic loading. Scripta Materialia, 2021, 194, 113675.	2.6	6
6	Effect of minor addition on dynamic mechanical relaxation in ZrCu-based metallic glasses. Journal of Non-Crystalline Solids, 2021, 553, 120496.	1.5	7
7	Dynamic mechanical relaxation behavior of binary metallic glasses. Intermetallics, 2021, 130, 107075.	1.8	1
8	A model study on controlling dealloying corrosion attack by lateral modification of surfactant inhibitors. Npj Materials Degradation, 2021, 5, .	2.6	8
9	Study Of Mercaptobenzimidazoles As Inhibitors For Copper Corrosion: Down to the Molecular Scale. Journal of the Electrochemical Society, 2021, 168, 051504.	1.3	18
10	Identifying the high entropy characteristic in La-based metallic glasses. Applied Physics Letters, 2021, 119, .	1.5	3
11	Dynamic mechanical relaxation and thermal creep of high-entropy La30Ce30Ni10Al20Co10 bulk metallic glass. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	37
12	Dynamic mechanical relaxation behavior of Zr35Hf17.5Ti5.5Al12.5Co7.5Ni12Cu10 high entropy bulk metallic glass. Journal of Materials Science and Technology, 2021, 83, 248-255.	5.6	32
13	Stress relaxation in high-entropy Pd20Pt20Cu20Ni20P20 metallic glass: Experiments, modeling and theory. Mechanics of Materials, 2021, 160, 103959.	1.7	5
14	Corrosion resistance of crystalline and amorphous CuZr alloys in NaCl aqueous environment and effect of corrosion inhibitors. Journal of Alloys and Compounds, 2021, 879, 160464.	2.8	12
15	How relevant are molecular electronic parameters for predicting corrosion inhibition efficiency: imidazoles as corrosion inhibitors of Cu/Zr materials in NaCl solution. Corrosion Science, 2021, 193, 109900.	3.0	16
16	Unified perspective on structural heterogeneity of a LaCe-based metallic glass from versatile dynamic stimuli. Intermetallics, 2020, 125, 106922.	1.8	8
17	Relaxation of internal friction and shear viscosity in Zr57Nb5Al10Cu15.4Ni12.6 metallic glass. Intermetallics, 2020, 124, 106846.	1.8	9
18	Link between shear modulus and enthalpy changes of Ti16.7Zr16.7Hf16.7Cu16.7Ni16.7Be16.7 high entropy bulk metallic glass. Journal of Alloys and Compounds, 2020, 830, 154564.	2.8	10

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19	Dynamic Mechanical Relaxation in LaCe-Based Metallic Glasses: Influence of the Chemical Composition. Metals, 2019, 9, 1013.	1.0	7
20	An Experimental and Numerical Study of Repairs on Composite Substrates with Composite and Aluminum Doublers Using Riveted, Bonded, and Hybrid Joints. Materials, 2019, 12, 2978.	1.3	4
21	Structural heterogeneities and mechanical behavior of amorphous alloys. Progress in Materials Science, 2019, 104, 250-329.	16.0	428
22	Influence of carbon content on microstructure and properties of a steel matrix cermet. International Journal of Refractory Metals and Hard Materials, 2018, 75, 78-84.	1.7	7
23	Study of medium range reordering by plastic deformation in Cu46Zr46Al8. Journal of Alloys and Compounds, 2018, 744, 34-40.	2.8	0
24	Viscoelasticity of Cu- and La-based bulk metallic glasses: Interpretation based on the quasi-point defects theory. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 719, 164-170.	2.6	15
25	On the static strength of aluminium and carbon fibre aircraft lap joint repairs. Composite Structures, 2018, 201, 276-290.	3.1	19
26	Viscoelastic behavior of a novel aluminum metal matrix composite and comparison with pure aluminum, aluminum alloys, and a composite made of Alâ€“Mgâ€“Si alloy reinforced with SiC particles. Journal of Alloys and Compounds, 2018, 744, 445-452.	2.8	33
27	Plastic deformation induced anisotropy in metallic glasses: A molecular dynamics study. Journal of Alloys and Compounds, 2017, 707, 102-107.	2.8	7
28	Kinetics and crystallization path of a Fe-based metallic glass alloy. Acta Materialia, 2017, 127, 341-350.	3.8	47
29	Amorphous physics and materials: Secondary relaxation and dynamic heterogeneity in metallic glasses: A brief review. Chinese Physics B, 2017, 26, 016402.	0.7	51
30	Slow Î² relaxation in La-based metallic glasses based on mechanical spectroscopy measurements. Journal of Iron and Steel Research International, 2017, 24, 397-401.	1.4	1
31	Sub-T relaxation times of the Î± process in metallic glasses. Journal of Non-Crystalline Solids, 2017, 471, 322-327.	1.5	16
32	Comparison of fatigue crack growth of riveted and bonded aircraft lap joints made of Aluminium alloy 2024-T3 substrates â€“ A numerical study. Journal of Physics: Conference Series, 2017, 843, 012035.	0.3	1
33	Physical aging effects on the dynamic relaxation behavior and mechanical properties of Cu46Zr46Al8 metallic glass. Journal of Alloys and Compounds, 2017, 726, 195-200.	2.8	10
34	Dynamic microstructural evolution of an Alâ€“Znâ€“Mgâ€“Cu alloy (7075) during continuous heating and the influence on the viscoelastic response. Materials Characterization, 2017, 134, 319-328.	1.9	22
35	Study on Mechanical Relaxations of 7075 (Alâ€“Znâ€“Mg) and 2024 (Alâ€“Cuâ€“Mg) Alloys by Application of the Time-Temperature Superposition Principle. Advances in Materials Science and Engineering, 2017, 2017, 1-12.	1.0	7
36	Onset Frequency of Fatigue Effects in Pure Aluminum and 7075 (AlZnMg) and 2024 (AlCuMg) Alloys. Metals, 2016, 6, 50.	1.0	14

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37	Transition from stress-driven to thermally activated stress relaxation in metallic glasses. Physical Review B, 2016, 94, .	1.1	65
38	Phonon dispersion relation of metallic glasses. Physical Review B, 2016, 94, .	1.1	14
39	Relaxation dynamics of Fe55Cr10Mo14C15B6 metallic glass explored by mechanical spectroscopy and calorimetry measurements. Journal of Thermal Analysis and Calorimetry, 2016, 125, 711-719.	2.0	2
40	Modeling of the Sub-T_g Relaxation Spectrum of Pd_{42.5}Ni_{7.5}Cu₃₀P₂₀ Metallic Glass. Journal of Physical Chemistry B, 2016, 120, 2838-2844.	1.2	4
41	Pair distribution function analysis of amorphous compounds using TEMÂelectron diffraction. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s401-s401.	0.0	0
42	Mechanical Relaxation of Metallic Glasses: An Overview of Experimental Data and Theoretical Models. Metals, 2015, 5, 1073-1111.	1.0	53
43	Innovative NDT Technique Based on Ferrofluids for Detection of Surface Cracks. Journal of Nondestructive Evaluation, 2015, 34, 1.	1.1	2
44	Characterization of mechanical relaxation in a Cuâ€“Zrâ€“Al metallic glass. Journal of Alloys and Compounds, 2015, 643, S17-S21.	2.8	13
45	Formation and Deposition of Stable Silver Nanoparticles Encapsulated in Solid Spheres. Journal of Nanoscience and Nanotechnology, 2014, 14, 6394-6398.	0.9	0
46	Crystallization, phase evolution and corrosion of Fe-based metallic glasses: An atomic-scale structural and chemical characterization study. Acta Materialia, 2014, 71, 20-30.	3.8	62
47	Role of Nb in glass formation of Feâ€“Crâ€“Moâ€“Câ€“Bâ€“Nb BMGs. Journal of Alloys and Compounds, 2014, 604, 157-163.	2.8	35
48	Aging and structural relaxation of hyper-quenched Mg65Cu25Y10 metallic glass. Journal of Alloys and Compounds, 2014, 615, S9-S12.	2.8	12
49	Molecular dynamics computation of the dynamical structure factor of a Lennardâ€“Jones glass: Propagation of acoustic modes at the nm-scale. Journal of Alloys and Compounds, 2014, 586, S250-S253.	2.8	2
50	Relaxation of rapidly quenched metallic glasses: Effect of the relaxation state on the slow low temperature dynamics. Acta Materialia, 2013, 61, 3002-3011.	3.8	56
51	Element-Resolved Corrosion Analysis of Stainless-Type Glass-Forming Steels. Science, 2013, 341, 372-376.	6.0	136
52	Color and dichroism of silver-stained glasses. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	23
53	Stability in Air of Silver and Silver Oxide Nanoparticle Shells Deposited Over Silica Spheres Without Using Coupling Agents. Journal of Nanoscience and Nanotechnology, 2012, 12, 8158-8164.	0.9	3
54	Inelastic X-ray scattering in metallic glasses. Intermetallics, 2012, 30, 148-153.	1.8	3

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55	Modeling of the Effect of Temperature, Frequency, and Phase Transformations on the Viscoelastic Properties of AA 7075-T6 and AA 2024-T3 Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 4633-4646.	1.1	16
56	Acoustic properties of metallic glasses in the mesoscopic regime by inelastic X-ray scattering. Journal of Alloys and Compounds, 2011, 509, S95-S98.	2.8	4
57	Role of Mo in the local configuration and structure stabilization of amorphous steels, a Synchrotron X-ray diffraction and MÃ¶ssbauer study. Journal of Alloys and Compounds, 2011, 509, S56-S59.	2.8	2
58	Effect of temperature and frequency of dynamic loading in the viscoelastic properties of aluminium alloy 7075-T6. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3111-3114.	0.8	6
59	Communication: Are metallic glasses different from other glasses? A closer look at their high frequency dynamics. Journal of Chemical Physics, 2011, 135, 101101.	1.2	6
60	Polyamorphic transitions in Ce-based metallic glasses by synchrotron radiation. Physical Review B, 2011, 84, .	1.1	35
61	High frequency dynamics of BMG determined by synchrotron radiation: A microscopic picture. Journal of Alloys and Compounds, 2010, 495, 319-322.	2.8	4
62	Fragility measurement of Pd-based metallic glass by dynamic mechanical analysis. Journal of Alloys and Compounds, 2010, 504, S215-S218.	2.8	8
63	Deposition of Silver Nanoshell and Reactivity of Silver Nanoparticles with Surface Silanols of Submicrospherical Silica. Journal of Nanoscience and Nanotechnology, 2009, 9, 3177-3180.	0.9	4
64	Cobalt nanocrystallites encapsulated in boron nitride shells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 162, 106-110.	1.7	1
65	BiFeO3 films on steel substrate by the citrate method. Thin Solid Films, 2009, 517, 2581-2585.	0.8	14
66	Structural study of conventional and bulk metallic glasses during annealing. Journal of Alloys and Compounds, 2009, 483, 578-581.	2.8	10
67	Phase-field modelling of microstructural evolution in primary crystallization. Journal of Alloys and Compounds, 2009, 483, 645-649.	2.8	10
68	Variations in morphologies of silver nanoshells on silica spheres. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 330, 86-90.	2.3	27
69	Singleâ€Phase MnFe₂O₄ Powders Obtained by the Polymerized Complex Method. Journal of the American Ceramic Society, 2008, 91, 2488-2494.	1.9	6
70	MÃ¶ssbauer characterization of an amorphous steel with optimal Mo content. Journal of Non-Crystalline Solids, 2008, 354, 5138-5139.	1.5	1
71	Structural evolution of metallic glasses during annealing through in situ synchrotron X-ray diffraction. Journal of Non-Crystalline Solids, 2008, 354, 5140-5142.	1.5	4
72	Preparation of coreâ€“shell nanospheres of silicaâ€“silver: SiO2@Ag. Journal of Non-Crystalline Solids, 2008, 354, 5435-5439.	1.5	46

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73	Microstructural characterisation and kinetics modelling of vermicular cast irons. Materials Science and Technology, 2008, 24, 1214-1221.	0.8	6
74	Temporal evolution of the domain structure in a Poisson-Voronoi nucleation and growth transformation: Results for one and three dimensions. Physical Review E, 2008, 78, 021110.	0.8	20
75	Temporal evolution of the domain structure in a Poissonâ€“Voronoi transformation. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P06007-P06007.	0.9	17
76	Metallic and nonmetallic shine in luster: An elastic ion backscattering study. Journal of Applied Physics, 2007, 101, 103518.	1.1	24
77	Domain-size distribution in a Poisson-Voronoi nucleation and growth transformation. Physical Review E, 2007, 75, 040107.	0.8	29
78	Phase-field modeling of glass crystallization: Change of the transport properties and crystallization kinetic. Journal of Non-Crystalline Solids, 2007, 353, 1002-1004.	1.5	7
79	Stable silver colloidal dispersions using short chain polyethylene glycol. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 303, 184-190.	2.3	148
80	Magnetic properties of dense carbon nanospheres prepared by chemical vapor deposition. Chemical Physics Letters, 2007, 447, 295-299.	1.2	10
81	Silver nanoprism coatings on optical glass substrates. Microelectronic Engineering, 2007, 84, 1665-1668.	1.1	34
82	Key Parameters in the Production of Medieval Luster Colors and Shines. Journal of the American Ceramic Society, 2007, 90, 2245-2254.	1.9	29
83	Synthesis and Structural Characterization of Single-Phase BiFeO3Powders from a Polymeric Precursor. Journal of the American Ceramic Society, 2007, 90, 2723-2727.	1.9	95
84	On the validity of Avrami formalism in primary crystallization. Journal of Applied Physics, 2006, 100, 054907.	1.1	71
85	Magnetic properties of dense graphitic filaments formed via thermal decomposition of mesitylene in an applied electric field. Carbon, 2006, 44, 2864-2867.	5.4	10
86	LaNiO3 nanopowder prepared by an â€˜amorphous citrateâ€™ route. Journal of the European Ceramic Society, 2006, 26, 403-407.	2.8	32
87	Recent advances in automatic demodulation of single fringe patterns. , 2006, , 90-97.		1
88	Optical autofocus for high resolution laser photoplotting. , 2005, , .		1
89	Ionic-Exchange Mechanism in the Formation of Medieval Luster Decorations. Journal of the American Ceramic Society, 2005, 88, 1281-1289.	1.9	61
90	Effects of Soft-Impingement and Non-random Nucleation on the Kinetics and Microstructural Development of Primary Crystallization. , 2005, , 126-134.		0

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91	Optoelectronic device for the measurement of the absolute linear position in the micrometric displacement range. , 2005, , .		1
92	Size distribution evolution equations in space-competing domain growth systems. Philosophical Magazine, 2004, 84, 2023-2039.	0.7	7
93	Cell size distribution in random tessellations of space. Physical Review E, 2004, 70, 066119.	0.8	56
94	Fast algorithm for estimation of the orientation term of a general quadrature transform with application to demodulation of an n-dimensional fringe pattern. Applied Optics, 2004, 43, 6139.	2.1	5
95	Small-angle scattering curves of densely packed particulate solids obtained by nucleation and growth kinetics. Journal of Applied Crystallography, 2003, 36, 836-839.	1.9	0
96	Microstructural implications of non-random nucleation protocols in nanocrystallized metallic glasses. Journal of Non-Crystalline Solids, 2003, 317, 85-90.	1.5	9
97	Experimental measurements of generalized grating images. Applied Optics, 2002, 41, 1223.	2.1	21
98	Crystallisation kinetics and microstructure development in metallic systems. Progress in Materials Science, 2002, 47, 559-619.	16.0	165
99	Nonâ€random nucleation and the Avrami kinetics. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 107-121.	0.8	25
100	On the equations describing the grain size distribution change for KJMA kinetics. Journal of Non-Crystalline Solids, 2001, 287, 88-91.	1.5	9
101	Kinetic simulation of primary transformations in glassy alloys. Journal of Non-Crystalline Solids, 2001, 287, 92-95.	1.5	8
102	Optical encoder based on the Lau effect. Optical Engineering, 2000, 39, 817.	0.5	42
103	Generalized grating imaging using an extended monochromatic light source. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1231.	0.8	49
104	Reflection optical encoders as three-grating moirÃ© systems. Applied Optics, 2000, 39, 3805.	2.1	14
105	Nanocrystallisation in Finemet Alloys with Different Si/B Ratios. Materials Science Forum, 1999, 307, 83-88.	0.3	1
106	A Method for Studying Natural Ventilation by Thermal Effects in a Tunnel Greenhouse using Laboratory-Scale Models. Biosystems Engineering, 1999, 72, 93-104.	0.4	21
107	Microstructure development in Kolmogorov, Johnson-Mehl, and Avrami nucleation and growth kinetics. Physical Review B, 1999, 60, 3104-3112.	1.1	52
108	Nanostructured precipitates: Experimental versus exact theoretical saxs profiles. Scripta Materialia, 1999, 12, 649-652.	0.5	1

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109	Characteristic functions of nanostructured materials. Scripta Materialia, 1999, 12, 879-882.	0.5	1
110	Microstructure Evaluation for Time Dependent Nucleation Protocols in KJMA Kinetics. Materials Research Society Symposia Proceedings, 1999, 580, 321.	0.1	0
111	Modeling of Non-Random Nucleation Protocols. Materials Research Society Symposia Proceedings, 1999, 580, 411.	0.1	1
112	<title>Automatic techniques for evaluation of moire deflectograms</title>. , 1999, 3744, 328.		1
113	AmÃ©lioration des performances du four dâ€™une ligne de recuitdÃ©capage de bandes dâ€™acier inoxydable par oxycombustion. Revue De Metallurgie, 1999, 96, 951-958.	0.3	0
114	Diffusion controlled grain growth in primary crystallization: Avrami exponents revisited. Journal of Physics Condensed Matter, 1998, 10, 3833-3844.	0.7	105
115	AVRAMI EXPONENTS VERSUS CRYSTALLIZATION MECHANISMS. , 1998, , .		1
116	THERMODYNAMIC AND KINETIC FACTORS DRIVING PRIMARY CRYSTALLIZATION. , 1998, , .		0
117	EVALUATION OF MICROSTRUCTURAL DEVELOPMENT IN CRYSTALLIZATION PROCESSES. , 1998, , .		0
118	Correlation Functions for Nanostructures Obtained by Nucleation and Growth Kinetics. Materials Research Society Symposia Proceedings, 1997, 481, 143.	0.1	0
119	Refinement of Size Distributions for Primary Crystallizations. Materials Research Society Symposia Proceedings, 1997, 481, 213.	0.1	0
120	Microstructural evaluation of primary crystallization with diffusion-controlled grain growth. Physical Review B, 1997, 55, 3435-3444.	1.1	72
121	KINETICS OF MICROSTRUCTURAL DEVELOPMENT IN NANOCRYSTALLINE MATERIALS. Scripta Materialia, 1997, 8, 345-357.	0.5	21
122	Correlation functions in first-order phase transitions. Physical Review E, 1997, 56, 2781-2792.	0.8	7
123	Kinetic theory of microstructural evolution in nucleation and growth processes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 238, 160-165.	2.6	15
124	Evaluation of time-dependent grain-size populations for nucleation and growth kinetics. Physical Review B, 1996, 54, 3101-3109.	1.1	50
125	Spiral vortices between concentric cylinders. Flow, Turbulence and Combustion, 1993, 51, 55-59.	0.2	18
126	Direct evidence of two different relaxation processes induced by heat treatment on Fe40Ni40B20glassy ribbons. Journal of Physics F: Metal Physics, 1988, 18, 2669-2681.	1.6	7

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127	Geometrical effects on line shape and background in experimental MÃ¶ssbauer spectra. Hyperfine Interactions, 1986, 29, 1539-1542.	0.2	5
128	Fuzzy logic control applied to neonatal life support units. , 0, , .		0
129	QUBIC4plus: a cost-effective BiCMOS manufacturing technology with elite passive enhancements optimized for 'silicon-based' RF-system-in-package environment. , 0, , .		23
130	Nonâ€random nucleation and the Avrami kinetics. , 0, .		5