## **Daniel Crespo**

# List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

123<br/>papers2,379<br/>citations26<br/>h-index45<br/>g-index133<br/>ext. papers2,732<br/>ext. citations4.8<br/>avg, IF5.08<br/>L-index

#	Paper	IF	Citations
123	Analysis of the anelastic deformation of high-entropy Pd20Pt20Cu20Ni20P20 metallic glass under stress relaxation and recovery. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 107, 82-91	9.1	1
122	Comprehensive insights into the thermal and mechanical effects of metallic glasses via creep. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 99, 39-47	9.1	2
121	Nanoporous Copper Ribbons Prepared by Chemical Dealloying of a Melt-Spun ZnCu Alloy. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 212-226	3.8	1
120	How relevant are molecular electronic parameters for predicting corrosion inhibition efficiency: imidazoles as corrosion inhibitors of Cu/Zr materials in NaCl solution. <i>Corrosion Science</i> , <b>2021</b> , 193, 1099	9 <b>60</b> 8	7
119	Dynamic mechanical relaxation behavior of binary metallic glasses. <i>Intermetallics</i> , <b>2021</b> , 130, 107075	3.5	
118	A model study on controlling dealloying corrosion attack by lateral modification of surfactant inhibitors. <i>Npj Materials Degradation</i> , <b>2021</b> , 5,	5.7	5
117	Study Of Mercaptobenzimidazoles As Inhibitors For Copper Corrosion: Down to the Molecular Scale. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 051504	3.9	9
116	Simplistic correlations between molecular electronic properties and inhibition efficiencies: Do they really exist?. <i>Corrosion Science</i> , <b>2021</b> , 179, 108856	6.8	36
115	Inelastic deformation of metallic glasses under dynamic cyclic loading. Scripta Materialia, 2021, 194, 113	3 <b>67</b> 5	2
114	Effect of minor addition on dynamic mechanical relaxation in ZrCu-based metallic glasses. <i>Journal of Non-Crystalline Solids</i> , <b>2021</b> , 553, 120496	3.9	3
113	Identifying the high entropy characteristic in La-based metallic glasses. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 051905	3.4	2
112	Dynamic mechanical relaxation and thermal creep of high-entropy La30Ce30Ni10Al20Co10 bulk metallic glass. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2021</b> , 64, 1	3.6	11
111	Dynamic mechanical relaxation behavior of Zr35Hf17.5Ti5.5Al12.5Co7.5Ni12Cu10 high entropy bulk metallic glass. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 83, 248-255	9.1	17
110	Stress relaxation in high-entropy Pd20Pt20Cu20Ni20P20 metallic glass: Experiments, modeling and theory. <i>Mechanics of Materials</i> , <b>2021</b> , 160, 103959	3.3	1
109	Corrosion resistance of crystalline and amorphous CuZr alloys in NaCl aqueous environment and effect of corrosion inhibitors. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 879, 160464	5.7	5
108	Unified perspective on structural heterogeneity of a LaCe-based metallic glass from versatile dynamic stimuli. <i>Intermetallics</i> , <b>2020</b> , 125, 106922	3.5	4
107	Relaxation of internal friction and shear viscosity in Zr57Nb5Al10Cu15.4Ni12.6 metallic glass. <i>Intermetallics</i> , <b>2020</b> , 124, 106846	3.5	7

### (2017-2020)

106	Link between shear modulus and enthalpy changes of Ti16.7Zr16.7Hf16.7Cu16.7Ni16.7Be16.7 high entropy bulk metallic glass. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 830, 154564	5.7	8
105	Dynamic Mechanical Relaxation in LaCe-Based Metallic Glasses: Influence of the Chemical Composition. <i>Metals</i> , <b>2019</b> , 9, 1013	2.3	5
104	An Experimental and Numerical Study of Repairs on Composite Substrates with Composite and Aluminum Doublers Using Riveted, Bonded, and Hybrid Joints. <i>Materials</i> , <b>2019</b> , 12,	3.5	1
103	Structural heterogeneities and mechanical behavior of amorphous alloys. <i>Progress in Materials Science</i> , <b>2019</b> , 104, 250-329	42.2	248
102	Fatigue Life Analysis of Un-repaired and Repaired Metallic Substrate Using FRANC2D. <i>Lecture Notes in Mechanical Engineering</i> , <b>2019</b> , 558-565	0.4	
101	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	4.1	4
100	Study of medium range reordering by plastic deformation in Cu46Zr46Al8. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 744, 34-40	5.7	
99	Viscoelasticity of Cu- and La-based bulk metallic glasses: Interpretation based on the quasi-point defects theory. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing,</i> <b>2018</b> , 719, 164-170	5.3	11
98	Viscoelastic behavior of a novel aluminum metal matrix composite and comparison with pure aluminum, aluminum alloys, and a composite made of AlMgBi alloy reinforced with SiC particles. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 744, 445-452	5.7	20
97	On the static strength of aluminium and carbon fibre aircraft lap joint repairs. <i>Composite Structures</i> , <b>2018</b> , 201, 276-290	5.3	15
96	Plastic deformation induced anisotropy in metallic glasses: A molecular dynamics study. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 707, 102-107	5.7	7
95	Kinetics and crystallization path of a Fe-based metallic glass alloy. <i>Acta Materialia</i> , <b>2017</b> , 127, 341-350	8.4	33
94	Amorphous physics and materials: Secondary relaxation and dynamic heterogeneity in metallic glasses: A brief review. <i>Chinese Physics B</i> , <b>2017</b> , 26, 016402	1.2	40
93	Slow Irelaxation in La-based metallic glasses based on mechanical spectroscopy measurements. Journal of Iron and Steel Research International, 2017, 24, 397-401	1.2	1
92	Sub-T relaxation times of the Eprocess in metallic glasses. <i>Journal of Non-Crystalline Solids</i> , <b>2017</b> , 471, 322-327	3.9	14
91	Comparison of fatigue crack growth of riveted and bonded aircraft lap joints made of Aluminium alloy 2024-T3 substrates IA numerical study. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 843, 012035	0.3	1
90	Physical aging effects on the dynamic relaxation behavior and mechanical properties of Cu46Zr46Al8 metallic glass. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 726, 195-200	5.7	8
89	Dynamic microstructural evolution of an AlanMgau alloy (7075) during continuous heating and the influence on the viscoelastic response. <i>Materials Characterization</i> , <b>2017</b> , 134, 319-328	3.9	15

88	Study on Mechanical Relaxations of 7075 (AllīnMg) and 2024 (AllīnMg) Alloys by Application of the Time-Temperature Superposition Principle. <i>Advances in Materials Science and Engineering</i> , <b>2017</b> , 2017, 1-12	1.5	7
87	Transition from stress-driven to thermally activated stress relaxation in metallic glasses. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	44
86	Phonon dispersion relation of metallic glasses. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	10
85	Relaxation dynamics of Fe55Cr10Mo14C15B6 metallic glass explored by mechanical spectroscopy and calorimetry measurements. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2016</b> , 125, 711-719	4.1	2
84	Modeling of the Sub-Tg Relaxation Spectrum of Pd42.5Ni7.5Cu30P20 Metallic Glass. <i>Journal of Physical Chemistry B</i> , <b>2016</b> , 120, 2838-44	3.4	4
83	Onset Frequency of Fatigue Effects in Pure Aluminum and 7075 (AlZnMg) and 2024 (AlCuMg) Alloys. <i>Metals</i> , <b>2016</b> , 6, 50	2.3	11
82	Characterization of mechanical relaxation in a Cu <b>I</b> r <b>A</b> l metallic glass. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 643, S17-S21	5.7	12
81	Mechanical Relaxation of Metallic Glasses: An Overview of Experimental Data and Theoretical Models. <i>Metals</i> , <b>2015</b> , 5, 1073-1111	2.3	45
80	Innovative NDT Technique Based on Ferrofluids for Detection of Surface Cracks. <i>Journal of Nondestructive Evaluation</i> , <b>2015</b> , 34, 1	2.1	
79	Crystallization, phase evolution and corrosion of Fe-based metallic glasses: An atomic-scale structural and chemical characterization study. <i>Acta Materialia</i> , <b>2014</b> , 71, 20-30	8.4	47
78	Role of Nb in glass formation of Fellr MollBNb BMGs. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 604, 157-163	5.7	26
77	Aging and structural relaxation of hyper-quenched Mg65Cu25Y10 metallic glass. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 615, S9-S12	5.7	10
76	Molecular dynamics computation of the dynamical structure factor of a LennardIIones glass: Propagation of acoustic modes at the nm-scale. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 586, S250-S253	5.7	О
75	Relaxation of rapidly quenched metallic glasses: Effect of the relaxation state on the slow low temperature dynamics. <i>Acta Materialia</i> , <b>2013</b> , 61, 3002-3011	8.4	45
74	Element-resolved corrosion analysis of stainless-type glass-forming steels. <i>Science</i> , <b>2013</b> , 341, 372-6	33.3	110
73	Color and dichroism of silver-stained glasses. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	15
72	Inelastic X-ray scattering in metallic glasses. <i>Intermetallics</i> , <b>2012</b> , 30, 148-153	3.5	3
71	Modeling of the Effect of Temperature, Frequency, and Phase Transformations on the Viscoelastic Properties of AA 7075-T6 and AA 2024-T3 Aluminum Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 4633-4646	2.3	14

### (2008-2012)

70	Stability in air of silver and silver oxide nanoparticle shells deposited over silica spheres without using coupling agents. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 8158-64	1.3	3	
69	Acoustic properties of metallic glasses in the mesoscopic regime by inelastic X-ray scattering. Journal of Alloys and Compounds, <b>2011</b> , 509, S95-S98	5.7	3	
68	Role of Mo in the local configuration and structure stabilization of amorphous steels, a Synchrotron X-ray diffraction and M\( \text{S}\) sbauer study. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, S56-S59	5.7	2	
67	Effect of temperature and frequency of dynamic loading in the viscoelastic properties of aluminium alloy 7075-T6. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2011</b> , 8, 3111-3114		6	
66	Communication: are metallic glasses different from other glasses? A closer look at their high frequency dynamics. <i>Journal of Chemical Physics</i> , <b>2011</b> , 135, 101101	3.9	3	
65	Polyamorphic transitions in Ce-based metallic glasses by synchrotron radiation. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	33	
64	High frequency dynamics of BMG determined by synchrotron radiation: A microscopic picture. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 495, 319-322	5.7	4	
63	Fragility measurement of Pd-based metallic glass by dynamic mechanical analysis. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 504, S215-S218	5.7	8	
62	Deposition of silver nanoshell and reactivity of silver nanoparticles with surface silanols of submicrospherical silica. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 3177-80	1.3	4	
61	Cobalt nanocrystallites encapsulated in boron nitride shells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2009</b> , 162, 106-110	3.1	1	
60	BiFeO3 films on steel substrate by the citrate method. <i>Thin Solid Films</i> , <b>2009</b> , 517, 2581-2585	2.2	13	
59	Structural study of conventional and bulk metallic glasses during annealing. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 483, 578-581	5.7	10	
58	Phase-field modelling of microstructural evolution in primary crystallization. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 483, 645-649	5.7	9	
57	MBsbauer characterization of an amorphous steel with optimal Mo content. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 5138-5139	3.9	1	
56	Structural evolution of metallic glasses during annealing through in situ synchrotron X-ray diffraction. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 5140-5142	3.9	4	
55	Preparation of corellhell nanospheres of silicalilver: SiO2@Ag. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 5435-5439	3.9	42	
54	Microstructural characterisation and kinetics modelling of vermicular cast irons. <i>Materials Science and Technology</i> , <b>2008</b> , 24, 1214-1221	1.5	4	
53	Temporal evolution of the domain structure in a Poisson-Voronoi nucleation and growth transformation: results for one and three dimensions. <i>Physical Review E</i> , <b>2008</b> , 78, 021110	2.4	18	

52	Variations in morphologies of silver nanoshells on silica spheres. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 330, 86-90	5.1	26
51	Single-Phase MnFe2O4 Powders Obtained by the Polymerized Complex Method. <i>Journal of the American Ceramic Society</i> , <b>2008</b> , 91, ???-???	3.8	3
50	Stable silver colloidal dispersions using short chain polyethylene glycol. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2007</b> , 303, 184-190	5.1	133
49	Magnetic properties of dense carbon nanospheres prepared by chemical vapor deposition. <i>Chemical Physics Letters</i> , <b>2007</b> , 447, 295-299	2.5	9
48	Silver nanoprism coatings on optical glass substrates. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1665-1668	2.5	32
47	Key Parameters in the Production of Medieval Luster Colors and Shines. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 2245-2254	3.8	26
46	Synthesis and Structural Characterization of Single-Phase BiFeO3 Powders from a Polymeric Precursor. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 2723-2727	3.8	89
45	Temporal evolution of the domain structure in a Poisson Foronoi transformation. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2007</b> , 2007, P06007-P06007	1.9	15
44	Metallic and nonmetallic shine in luster: An elastic ion backscattering study. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 103518	2.5	16
43	Domain-size distribution in a Poisson-Voronoi nucleation and growth transformation. <i>Physical Review E</i> , <b>2007</b> , 75, 040107	2.4	27
42	Phase-field modeling of glass crystallization: Change of the transport properties and crystallization kinetic. <i>Journal of Non-Crystalline Solids</i> , <b>2007</b> , 353, 1002-1004	3.9	4
41	On the validity of Avrami formalism in primary crystallization. <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 054	9 <u>0.7</u>	63
40	Magnetic properties of dense graphitic filaments formed via thermal decomposition of mesitylene in an applied electric field. <i>Carbon</i> , <b>2006</b> , 44, 2864-2867	10.4	10
39	LaNiO3 nanopowder prepared by an Emorphous citratelloute. <i>Journal of the European Ceramic Society</i> , <b>2006</b> , 26, 403-407	6	25
38	Recent advances in automatic demodulation of single fringe patterns <b>2006</b> , 90-97		1
37	Optical autofocus for high resolution laser photoplotting 2005,		1
36	Ionic-Exchange Mechanism in the Formation of Medieval Luster Decorations. <i>Journal of the American Ceramic Society</i> , <b>2005</b> , 88, 1281-1289	3.8	58
35	Effects of Soft-Impingement and Non-random Nucleation on the Kinetics and Microstructural Development of Primary Crystallization <b>2005</b> , 126-134		

#### (1999-2004)

34	Size distribution evolution equations in space-competing domain growth systems. <i>Philosophical Magazine</i> , <b>2004</b> , 84, 2023-2039	1.6	7
33	Cell size distribution in random tessellations of space. <i>Physical Review E</i> , <b>2004</b> , 70, 066119	2.4	49
32	Fast algorithm for estimation of the orientation term of a general quadrature transform with application to demodulation of an n-dimensional fringe pattern. <i>Applied Optics</i> , <b>2004</b> , 43, 6139-46	1.7	5
31	Small-angle scattering curves of densely packed particulate solids obtained by nucleation and growth kinetics. <i>Journal of Applied Crystallography</i> , <b>2003</b> , 36, 836-839	3.8	
30	Microstructural implications of non-random nucleation protocols in nanocrystallized metallic glasses. <i>Journal of Non-Crystalline Solids</i> , <b>2003</b> , 317, 85-90	3.9	8
29	Crystallisation kinetics and microstructure development in metallic systems. <i>Progress in Materials Science</i> , <b>2002</b> , 47, 559-619	42.2	144
28	Non-random nucleation and the Avrami kinetics. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>2002</b> , 82, 107-121		23
27	Experimental measurements of generalized grating images. <i>Applied Optics</i> , <b>2002</b> , 41, 1223-8	1.7	18
26	On the equations describing the grain size distribution change for KJMA kinetics. <i>Journal of Non-Crystalline Solids</i> , <b>2001</b> , 287, 88-91	3.9	8
25	Kinetic simulation of primary transformations in glassy alloys. <i>Journal of Non-Crystalline Solids</i> , <b>2001</b> , 287, 92-95	3.9	8
24	Optical encoder based on the Lau effect. Optical Engineering, 2000, 39, 817	1.1	35
23	Generalized grating imaging using an extended monochromatic light source. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2000</b> , 17, 1231-40	1.8	42
22	Reflection optical encoders as three-grating moir systems. Applied Optics, 2000, 39, 3805-13	1.7	14
21	Nanocrystallisation in Finemet Alloys with Different Si/B Ratios. <i>Materials Science Forum</i> , <b>1999</b> , 307, 83-	-88. <sub>4</sub>	1
20	A Method for Studying Natural Ventilation by Thermal Effects in a Tunnel Greenhouse using Laboratory-Scale Models. <i>Biosystems Engineering</i> , <b>1999</b> , 72, 93-104		18
19	Microstructure development in Kolmogorov, Johnson-Mehl, and Avrami nucleation and growth kinetics. <i>Physical Review B</i> , <b>1999</b> , 60, 3104-3112	3.3	45
18	Nanostructured precipitates: Experimental versus exact theoretical saxs profiles. <i>Scripta Materialia</i> , <b>1999</b> , 12, 649-652		1
17	Characteristic functions of nanostructured materials. <i>Scripta Materialia</i> , <b>1999</b> , 12, 879-882		

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Microstructure Evaluation for Time Dependent Nucleation Protocols in KJMA Kinetics. Materials 16 Research Society Symposia Proceedings, 1999, 580, 321 Modeling of Non-Random Nucleation Protocols. Materials Research Society Symposia Proceedings, **1999**, 580, 411 Diffusion controlled grain growth in primary crystallization: Avrami exponents revisited. Journal of 1.8 14 95 Physics Condensed Matter, 1998, 10, 3833-3844 AVRAMI EXPONENTS VERSUS CRYSTALLIZATION MECHANISMS 1998, 13 Correlation Functions for Nanostructures Obtained by Nucleation and Growth Kinetics. Materials 12 Research Society Symposia Proceedings, 1997, 481, 143 Refinement of Size Distributions for Primary Crystallizations. Materials Research Society Symposia 11 *Proceedings*, **1997**, 481, 213 Microstructural evaluation of primary crystallization with diffusion-controlled grain growth. 63 10 3.3 Physical Review B, 1997, 55, 3435-3444 KINETICS OF MICROSTRUCTURAL DEVELOPMENT IN NANOCRYSTALLINE MATERIALS. Scripta 19 Materialia, **1997**, 8, 345-357 Correlation functions in first-order phase transitions. Physical Review E, 1997, 56, 2781-2792 7 2.4 Kinetic theory of microstructural evolution in nucleation and growth processes. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 238, 160-165  $^{5\cdot3}$ 15 Evaluation of time-dependent grain-size populations for nucleation and growth kinetics. Physical 6 46 3.3 Review B, **1996**, 54, 3101-3109 Spiral vortices between concentric cylinders. Flow, Turbulence and Combustion, 1993, 51, 55-59 15 Direct evidence of two different relaxation processes induced by heat treatment on 7 Fe40Ni40B20glassy ribbons. Journal of Physics F: Metal Physics, 1988, 18, 2669-2681

Geometrical effects on line shape and background in experimental MBsbauer spectra. Hyperfine

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Interactions, 1986, 29, 1539-1542

optimized for 'silicon-based' RF-system-in-package environment

Non-random nucleation and the Avrami kinetics