

Javier Gil Sevillano

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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.

110
papers

2,656
citations

25
h-index

49
g-index

118
ext. papers

2,810
ext. citations

3.6
avg, IF

4.81
L-index

#	Paper	IF	Citations
110	Large strain work hardening and textures. <i>Progress in Materials Science</i> , 1980 , 25, 69-134	42.2	641
109	Cross-sectional nanoindentation: a new technique for thin film interfacial adhesion characterization. <i>Acta Materialia</i> , 1999 , 47, 4405-4413	8.4	106
108	Critical examination of strain-rate sensitivity measurement by nanoindentation methods: Application to severely deformed niobium. <i>Acta Materialia</i> , 2008 , 56, 884-893	8.4	95
107	Absence of one-to-one correspondence between elastoplastic properties and sharp-indentation load/penetration data. <i>Journal of Materials Research</i> , 2005 , 20, 432-437	2.5	90
106	Low energy dislocation structures in highly deformed materials. <i>Materials Science and Engineering</i> , 1987 , 86, 35-51		83
105	Residual stress profiling in the ferrite and cementite phases of cold-drawn steel rods by synchrotron X-ray and neutron diffraction. <i>Acta Materialia</i> , 2004 , 52, 5303-5313	8.4	75
104	Electro-discharge machining (EDM) versus hard turning and grinding—Comparison of residual stresses and surface integrity generated in AISI O1 tool steel. <i>Journal of Materials Processing Technology</i> , 2008 , 195, 186-194	5.3	68
103	Room temperature plastic deformation of pearlitic cementite. <i>Materials Science and Engineering</i> , 1975 , 21, 221-225		68
102	A comparison of FEM and upper-bound type analysis of equal-channel angular pressing (ECAP). <i>Journal of Materials Processing Technology</i> , 2003 , 141, 313-318	5.3	67
101	Intrinsic size effects in plasticity by dislocation glide. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 309-310, 393-405	5.3	66
100	Modelling cleavage fracture of bainitic steels. <i>Acta Metallurgica Et Materialia</i> , 1994 , 42, 2057-2068		65
99	Ductilization of nanocrystalline materials for structural applications. <i>Scripta Materialia</i> , 2004 , 51, 795-800	9.6	64
98	The contribution of macroscopic shear bands to the rolling texture of FCC metals. <i>Scripta Metallurgica</i> , 1977 , 11, 581-585		56
97	Hall-Petch Relationship of a TWIP Steel. <i>Key Engineering Materials</i> , 2003 , 147-152	0.4	48
96	Rapid Transformation Annealing: a Novel Method for Grain Refinement of Cold-Rolled Low-Carbon Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 1882-1890	2.3	45
95	Fatigue Behavior of Four High-Mn Twinning Induced Plasticity Effect Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010 , 41, 1102-1108	2.3	44
94	The fractal nature of gliding dislocation lines. <i>Scripta Metallurgica Et Materialia</i> , 1991 , 25, 355-360		44

93	Internal stresses and the mechanism of work hardening in twinning-induced plasticity steels. <i>Scripta Materialia</i> , 2012 , 66, 978-981	5.6	40
92	A quantitative assessment of forest-hardening in f.c.c. metals. <i>Acta Metallurgica</i> , 1987 , 35, 631-641		40
91	Two-dimensional sections of the yield locus of a Ti-6%Al-4%V alloy with a strong transverse-type crystallographic texture. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995 , 201, 103-110	5.3	39
90	Geometrically necessary twins and their associated size effects. <i>Scripta Materialia</i> , 2008 , 59, 135-138	5.6	38
89	Substructure and strengthening of heavily deformed single and two-phase metallic materials. <i>Journal De Physique III</i> , 1991 , 1, 967-988		37
88	Fracture characterization in patterned thin films by cross-sectional nanoindentation. <i>Acta Materialia</i> , 2006 , 54, 3453-3462	8.4	33
87	An analysis of the extrusion of bimetallic tubes by numerical simulation. <i>International Journal of Mechanical Sciences</i> , 1996 , 38, 157-173	5.5	27
86	The heterogeneous nature of slip in ice single crystals deformed under torsion. <i>Philosophical Magazine</i> , 2006 , 86, 4259-4270	1.6	26
85	Hall-Petch behaviour induced by plastic strain gradients. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 365, 186-190	5.3	25
84	Measurement and modelling of residual stresses in straightened commercial eutectoid steel rods. <i>Acta Materialia</i> , 2005 , 53, 4415-4425	8.4	25
83	Kinetics of Recrystallization and Grain Growth of Cold Rolled TWIP Steel. <i>Advanced Materials Research</i> , 2010 , 89-91, 153-158	0.5	24
82	On the impossibility of multi-pass equal-channel angular drawing. <i>Scripta Materialia</i> , 2002 , 47, 13-18	5.6	24
81	Comments on Comment on the determination of mechanical properties from the energy dissipated during indentation [by J. Malzbender [J. Mater. Res. 20, 1090 (2005)]. <i>Journal of Materials Research</i> , 2006 , 21, 302-305	2.5	22
80	A fracture condition based on the upper bound method for the extrusion of bimetallic tubes. <i>Journal of Materials Processing Technology</i> , 1996 , 61, 265-274	5.3	22
79	Assessment of elastic anisotropy and incipient plasticity in Fe ₃ C by nanoindentation. <i>Journal of Materials Research</i> , 2012 , 27, 45-52	2.5	21
78	Consolidation, microstructure and mechanical properties of newly developed TiB ₂ -Based materials. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 26, 957-962		20
77	Detailed assessment of indentation size-effect in recrystallized and highly deformed niobium?. <i>Acta Materialia</i> , 2006 , 54, 3445-3452	8.4	19
76	Fracture toughness of W heavy metal alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992 , 157, 151-160	5.3	19

75	Molecular dynamics simulation of crack tip blunting in opposing directions along a symmetrical tilt grain boundary of copper bicrystal. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2007 , 30, 1008-1015	3	18
74	Measuring the strain rate sensitivity by instrumented indentation. Application to an ultrafine grain (equal channel angular pressed) eutectic SnBi alloy. <i>Journal of Materials Research</i> , 2004 , 19, 282-290	2.5	18
73	On the elastic effects in power-law indentation creep with sharp conical indenters. <i>Journal of Materials Research</i> , 2008 , 23, 182-188	2.5	17
72	Heterogeneous Deformation and Internal Stresses Developed in BCC Wires by Axisymmetric Elongation. <i>Materials Science Forum</i> , 2007 , 550, 75-84	0.4	17
71	Atomistic simulation of tensile strength and toughness of cracked Cu nanowires. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2006 , 29, 615-622	3	17
70	On the Yield and Flow Stress of Lamellar Pearlite 1979 , 819-824		16
69	In situ Neutron Diffraction Study of Internal Micro-Stresses Developed by Plastic Elongation in α -Fe; Textured BCC Wires. <i>Advanced Engineering Materials</i> , 2008 , 10, 951-954	3.5	15
68	Strain Rate Sensitivity of Superplastic Inconel 718. <i>Materials Transactions</i> , 2005 , 46, 1711-1719	1.3	15
67	Fragmentation of as-drawn pearlitic steel wires during torsion tests. <i>Engineering Fracture Mechanics</i> , 1998 , 60, 255-272	4.2	14
66	Texture and large strain deformation microstructure. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1999 , 357, 1603-1619	3	14
65	The influence of the primer layer on mechanical damage and loss of corrosion protection of deformed painted Zn-0.16% Al and Zn-5% Al galvanized sheet steel. <i>Corrosion Science</i> , 1995 , 37, 79-95	6.8	14
64	Adhesion studies in integrated circuit interconnect structures. <i>Engineering Failure Analysis</i> , 2007 , 14, 349-354	3.2	13
63	Simulation of the microstructural evolution during liquid phase sintering using a geometrical Monte Carlo model. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2005 , 13, 1057-1070	2	12
62	Microcompression tests of single-crystalline and ultrafine grain Bi ₂ Te ₃ thermoelectric material. <i>Journal of Materials Research</i> , 2015 , 30, 2593-2604	2.5	11
61	Modelling the evolution of residual stresses during tensile testing of elastoplastic wires subjected to a previous bending operation. <i>International Journal of Mechanical Sciences</i> , 1999 , 41, 1031-1050	5.5	11
60	Life prediction of thermally cracked railway wheels: Growth estimation of cracks with arbitrary shape. <i>Theoretical and Applied Fracture Mechanics</i> , 1988 , 9, 123-139	3.7	10
59	Patterns in heavily deformed metals. <i>Physica Scripta</i> , 1993 , T49B, 405-411	2.6	9
58	Overview no. 50. <i>Acta Metallurgica</i> , 1986 , 34, 1473-1485		9

57	HARD TURNING PLUS GRINDING A COMBINATION TO OBTAIN GOOD SURFACE INTEGRITY IN AISI O1 TOOL STEEL MACHINED PARTS. <i>Machining Science and Technology</i> , 2008 , 12, 15-32	2	8
56	Safety maps in bimetallic extrusions. <i>Journal of Materials Processing Technology</i> , 1996 , 60, 133-140	5.3	8
55	An analytical approach to the stress field in the extrusion of bimetallic tubes. <i>International Journal of Solids and Structures</i> , 1996 , 33, 2075-2093	3.1	8
54	Dynamic subgrain coalescence during low-temperature large plastic strains. <i>Journal of Materials Science</i> , 1984 , 19, 423-427	4.3	8
53	Numerical analysis of the indentation size effect using a strain gradient crystal plasticity model. <i>Computational Materials Science</i> , 2014 , 82, 314-319	3.2	7
52	Geometrical Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2010 , 80, 1469-1486	3.3	7
51	Propiedades mecánicas del telururo de bismuto (Bi ₂ Te ₃) procesado mediante torsión bajo alta presión (HPT). <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2013 , 52, 137-142	1.9	7
50	Interface stability under biaxial loading of bilayered sheets between rigid surfaces Bifurcation analysis. <i>International Journal of Solids and Structures</i> , 1997 , 34, 603-623	3.1	6
49	Microfracture of polycrystals and the Bishop & Hill stress states. <i>Scripta Metallurgica</i> , 1986 , 20, 1111-1114		6
48	Inhomogeneity in the stored energy of deformed BCC-metals. <i>Scripta Metallurgica</i> , 1976 , 10, 775-778		6
47	Structure and texture of twin roll cast strips of Zn-Cu zinc alloy. <i>Materials Science and Technology</i> , 2014 , 30, 91-95	1.5	5
46	Plastic deformation by conservative shear-coupled migration of tilt boundaries with intergranular nano-cracks or precipitates. <i>Philosophical Magazine</i> , 2010 , 90, 3743-3756	1.6	5
45	White layers generated in AISI O1 tool steel by hard turning or by EDM. <i>International Journal of Machining and Machinability of Materials</i> , 2008 , 4, 287	0.7	5
44	Si enrichment of conventional electrical steel by means of physical vapour deposition. <i>Scripta Materialia</i> , 1999 , 41, 729-735	5.6	5
43	Dynamic Steady State by Unlimited Unidirectional Plastic Deformation of Crystalline Materials Deforming by Dislocation Glide at Low to Moderate Temperatures. <i>Metals</i> , 2020 , 10, 66	2.3	5
42	ECAE, una tecnología de procesamiento emergente para producir propiedades relevantes en materiales metálicos. <i>Revista De Metalurgia</i> , 2001 , 37, 673-692	0.4	5
41	A comparison of the internal stresses in a transformation-induced plasticity-assisted steel and a twinning-induced plasticity steel. <i>Materials Science and Technology</i> , 2019 , 35, 409-419	1.5	4
40	Atomistic simulation of the elongation response of a oriented columnar nano-grain bcc Fe polycrystalline sample. <i>Meccanica</i> , 2016 , 51, 401-413	2.1	4

39	Flow Stress and Work Hardening 2006 ,		4
38	Size effects in powder compaction. <i>Journal of Materials Research</i> , 2001 , 16, 1238-1240	2.5	4
37	Ciels de Van Gogh et propri��s m��caniques. <i>European Physical Journal Special Topics</i> , 1998 , 08, Pr4-155-Pr4-165		4
36	The Cold Worked State. <i>Materials Science Forum</i> , 1993 , 113-115, 19-28	0.4	4
35	Propiedades mec��nicas a tracci��n y mecanismos de endurecimiento de un acero TWIP a altas velocidades de deformaci��n: relaci��n de Hall-Petch. <i>Revista De Metalurgia</i> , 2014 , 50, e031	0.4	4
34	Elasto-plastic behaviour of a columnar structure of nanocrystalline iron with sharp <011> fibre texture. <i>Materialia</i> , 2018 , 2, 218-230	3.2	4
33	Diffusional Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2011 , 81, 2564-2580	3.3	3
32	A novel method of analysis of superplastic behaviour. <i>Materials Letters</i> , 2004 , 58, 3052-3057	3.3	3
31	The transformation substructure of quenched iron-copper alloys. <i>Metallography</i> , 1979 , 12, 215-223		3
30	P��rdida de ductilidad debido a la descarburaci��n y p��rdida de Mn de un acero TWIP de tama��n de grano grosero. <i>Revista De Metalurgia</i> , 2017 , 53, 109	0.4	3
29	Un estudio adicional de la cin��tica de recristalizaci��n y crecimiento de grano del acero twip laminado en fr��o. <i>Revista De Metalurgia</i> , 2018 , 54, 131	0.4	3
28	New mesoscopic constitutive model for deformation of pearlitic steels up to moderate strains. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 219, 012010	0.4	2
27	Nanoporous gold periodical linear patterns obtained by laser interference thermal treatment. <i>Thin Solid Films</i> , 2013 , 548, 69-74	2.2	2
26	Towards a reliable procedure for the measurement of elastic modulus in instrumented indentation. <i>Philosophical Magazine</i> , 2011 , 91, 1400-1408	1.6	2
25	Mode II loading behaviour of intergranular cracks lying on a $\pm 7(530)/[001]$ symmetrical tilt boundary in copper. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, 2107-2112		2
24	Micromechanical model of 3D cross-ply copper matrix composite reinforced with SiC fibres. <i>Engineering Failure Analysis</i> , 2009 , 16, 2559-2566	3.2	2
23	Lithic tool making by Amazonian palaeoindians: a case-study on materials selection. <i>Journal of Materials Science Letters</i> , 1997 , 16, 465-468		2
22	Roughness of a mode I in-plane crack front propagating along a heterogeneous cohesive interface. <i>Journal of Computer-Aided Materials Design</i> , 2007 , 14, 15-24		2

21	A transmission electron microscopy study of lath martensite habit planes in Fe?Cu alloys. <i>Materials Science and Engineering</i> , 1980 , 43, 109-113		2
20	Microbands in Cold Worked Metals 1982 , 547-552		2
19	Estructura y textura de un meteorito metálico de tipo octaedrita (Gibeon). <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2000 , 39, 313-318	1.9	2
18	Modificación de las texturas y de los índices de embutibilidad de chapas de aleaciones de aluminio Al 1050 y Al-Mg 5754 mediante laminación asimétrica. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2004 , 43, 175-178	1.9	2
17	Medida de la dureza de sólidos mediante nanoindentación. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2005 , 44, 259-264	1.9	2
16	Effects of temperature and strain rate in strain hardening in torsion of a twinning-induced plasticity steel. <i>Materials Science and Technology</i> , 2019 , 35, 669-679	1.5	1
15	Adhesion Studies in Low-k Interconnects Using Cross Sectional Nanoindentation. <i>AIP Conference Proceedings</i> , 2006 ,	0	1
14	Optimal SPD Processing of Plates by Constrained Groove Pressing (CGP) 2005 , 491-497		1
13	FATIGUE CRACK PATH IN MEDIUM-HIGH CARBON FERRITE-PEARLITE STRUCTURES 1984 , 2073-2079		1
12	A comparison of the structure and mechanical properties of commercially pure tungsten rolled plates for the target of the European spallation source. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 70, 45-55	4.1	0
11	Size Effect in the Shear-Coupled Migration of Grain Boundaries Pinned by Triple Junctions. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1224, 1		
10	Interface stability under biaxial loading of bilayered sheets between rigid surfaces. Stability of perturbations. <i>International Journal of Solids and Structures</i> , 1997 , 34, 625-638	3.1	
9	Residual Stresses in Cold-drawn Pearlite Rods by High Energy Synchrotron Radiation and Thermal Neutron Diffraction. <i>Journal of Neutron Research</i> , 2004 , 12, 175-180	0.5	
8	Stage IV: Microscopic or Mesoscopic Effect? 2005 , 65-71		
7	Intrinsic and Extrinsic Size Effects in Plasticity by Dislocation Glide. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 653, 1		
6	Plastic flow of a two-phase solid-liquid metallic system. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1994 , 175, 159-166	5.3	
5	How a stable crack extension changes the Weibull modulus of cleavage fracture probability. <i>International Journal of Fracture</i> , 1993 , 62, R19-R27	2.3	
4	Comments on a paper by Hartley and Bal. <i>Scripta Metallurgica</i> , 1984 , 18, 417-418		

- 3 Efficiency of directional transformation on the oriented growth of eutectoid alloys. *Materials Science and Engineering*, **1978**, 34, 7-12
- 2 Unusual slip systems on high purity aluminium single-crystals. *Scripta Metallurgica*, **1978**, 12, 169-174
- 1 Plastically-Induced Volume Deformation of Nanocrystalline Fe with a Columnar Structure. *Metals*, **2020**, 10, 1649 2.3