

Javier Gil Sevillano

List of Publications by Year in descending order

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114
papers

3,010
citations

218677

26
h-index

175258

52
g-index

118
all docs

118
docs citations

118
times ranked

2148
citing authors

#	ARTICLE	IF	CITATIONS
1	Large strain work hardening and textures. <i>Progress in Materials Science</i> , 1980, 25, 69-134.	32.8	716
2	Cross-sectional nanoindentation: a new technique for thin film interfacial adhesion characterization. <i>Acta Materialia</i> , 1999, 47, 4405-4413.	7.9	124
3	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.	2.6	107
4	Critical examination of strain-rate sensitivity measurement by nanoindentation methods: Application to severely deformed niobium. <i>Acta Materialia</i> , 2008, 56, 884-893.	7.9	106
5	Low energy dislocation structures in highly deformed materials. <i>Materials Science and Engineering</i> , 1987, 86, 35-51.	0.1	88
6	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.	7.9	81
7	Modelling cleavage fracture of bainitic steels. <i>Acta Metallurgica Et Materialia</i> , 1994, 42, 2057-2068.	1.8	80
8	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.	6.3	79
9	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.	6.3	79
10	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.	5.6	75
11	Room temperature plastic deformation of pearlitic cementite. <i>Materials Science and Engineering</i> , 1975, 21, 221-225.	0.1	71
12	Ductilization of nanocrystalline materials for structural applications. <i>Scripta Materialia</i> , 2004, 51, 795-800.	5.2	71
13	The contribution of macroscopic shear bands to the rolling texture of FCC metals. <i>Scripta Metallurgica</i> , 1977, 11, 581-585.	1.2	64
14	Hall-Petch Relationship of a TWIP Steel. <i>Key Engineering Materials</i> , 0, 423, 147-152.	0.4	60
15	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.	2.2	50
16	The fractal nature of gliding dislocation lines. <i>Scripta Metallurgica Et Materialia</i> , 1991, 25, 355-360.	1.0	48
17	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.	2.2	48
18	Two-dimensional sections of the yield locus of a Ti-6Al-4V alloy with a strong transverse-type crystallographic texture. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 201, 103-110.	5.6	45

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19	A quantitative assessment of forest-hardening in f.c.c. metals. <i>Acta Metallurgica</i> , 1987, 35, 631-641.	2.1	44
20	Internal stresses and the mechanism of work hardening in twinning-induced plasticity steels. <i>Scripta Materialia</i> , 2012, 66, 978-981.	5.2	43
21	Geometrically necessary twins and their associated size effects. <i>Scripta Materialia</i> , 2008, 59, 135-138.	5.2	41
22	Fracture characterization in patterned thin films by cross-sectional nanoindentation. <i>Acta Materialia</i> , 2006, 54, 3453-3462.	7.9	39
23	Substructure and strengthening of heavily deformed single and two-phase metallic materials. <i>Journal De Physique III</i> , 1991, 1, 967-988.	0.3	38
24	An analysis of the extrusion of bimetallic tubes by numerical simulation. <i>International Journal of Mechanical Sciences</i> , 1996, 38, 157-173.	6.7	33
25	The heterogeneous nature of slip in ice single crystals deformed under torsion. <i>Philosophical Magazine</i> , 2006, 86, 4259-4270.	1.6	29
26	Hall-Petch behaviour induced by plastic strain gradients. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 365, 186-190.	5.6	27
27	Measurement and modelling of residual stresses in straightened commercial eutectoid steel rods. <i>Acta Materialia</i> , 2005, 53, 4415-4425.	7.9	27
28	Kinetics of Recrystallization and Grain Growth of Cold Rolled TWIP Steel. <i>Advanced Materials Research</i> , 0, 89-91, 153-158.	0.3	27
29	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.	6.3	25
30	Consolidation, microstructure and mechanical properties of newly developed TiB ₂ -Based materials. <i>Scripta Metallurgica Et Materialia</i> , 1992, 26, 957-962.	1.0	24
31	On the impossibility of multi-pass equal-channel angular drawing. <i>Scripta Materialia</i> , 2002, 47, 13-18.	5.2	24
32	Measuring the strain rate sensitivity by instrumented indentation. Application to an ultrafine grain (equal channel angular-pressed) eutectic Sn-Bi alloy. <i>Journal of Materials Research</i> , 2004, 19, 282-290.	2.6	24
33	Assessment of elastic anisotropy and incipient plasticity in Fe ₃ C by nanoindentation. <i>Journal of Materials Research</i> , 2012, 27, 45-52.	2.6	24
34	Fracture toughness of W heavy metal alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992, 157, 151-160.	5.6	23
35	Comments on "Comment on the determination of mechanical properties from the energy dissipated during indentation" by J. Malzbender [<i>J. Mater. Res.</i> 20, 1090 (2005)]. <i>Journal of Materials Research</i> , 2006, 21, 302-305.	2.6	23
36	Detailed assessment of indentation size-effect in recrystallized and highly deformed niobium. <i>Acta Materialia</i> , 2006, 54, 3445-3452.	7.9	22

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37	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.	3.4	21
38	On the Yield and Flow Stress of Lamellar Pearlite. , 1979, , 819-824.		19
39	Strain Rate Sensitivity of Superplastic Inconel 718. <i>Materials Transactions</i> , 2005, 46, 1711-1719.	1.2	19
40	On the elastic effects in power-law indentation creep with sharp conical indenters. <i>Journal of Materials Research</i> , 2008, 23, 182-188.	2.6	19
41	Heterogeneous Deformation and Internal Stresses Developed in BCC Wires by Axisymmetric Elongation. <i>Materials Science Forum</i> , 0, 550, 75-84.	0.3	18
42	Texture and large-ε strain deformation microstructure. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1999, 357, 1603-1619.	3.4	17
43	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.	3.4	17
44	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.	6.6	16
45	Fragmentation of as-drawn pearlitic steel wires during torsion tests. <i>Engineering Fracture Mechanics</i> , 1998, 60, 255-272.	4.3	16
46	In situ Neutron Diffraction Study of Internal Micro-ε Stresses Developed by Plastic Elongation in ϵ -Fe ₃ C ₂ Textured BCC Wires. <i>Advanced Engineering Materials</i> , 2008, 10, 951-954.	3.5	15
47	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.	2.0	14
48	Adhesion studies in integrated circuit interconnect structures. <i>Engineering Failure Analysis</i> , 2007, 14, 349-354.	4.0	14
49	Microcompression tests of single-crystalline and ultrafine grain Bi ₂ Te ₃ thermoelectric material. <i>Journal of Materials Research</i> , 2015, 30, 2593-2604.	2.6	14
50	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.	6.7	13
51	Dynamic subgrain coalescence during low-temperature large plastic strains. <i>Journal of Materials Science</i> , 1984, 19, 423-427.	3.7	11
52	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.	2.7	11
53	Geometrical Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2010, 80, 1469-1486.	4.4	11
54	Overview no. 50. <i>Acta Metallurgica</i> , 1986, 34, 1473-1485.	2.1	10

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55	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.	4.7	10
56	Numerical analysis of the indentation size effect using a strain gradient crystal plasticity model. <i>Computational Materials Science</i> , 2014, 82, 314-319.	3.0	10
57	Inhomogeneity in the stored energy of deformed BCC-metals. <i>Scripta Metallurgica</i> , 1976, 10, 775-778.	1.2	9
58	Patterns in heavily deformed metals. <i>Physica Scripta</i> , 1993, T49B, 405-411.	2.5	9
59	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.	2.5	9
60	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	9
61	Propiedades mecánicas del telururo de bismuto ($\text{Bi}_{2}\text{Te}_{3}$) procesado mediante torsión bajo alta presión (HPT). <i>Boletín De La Sociedad Espanola De Ceramica Y Vidrio</i> , 2013, 52, 137-142.	1.9	9
62	Safety maps in bimetallic extrusions. <i>Journal of Materials Processing Technology</i> , 1996, 60, 133-140.	6.3	8
63	The Cold Worked State. <i>Materials Science Forum</i> , 1993, 113-115, 19-28.	0.3	7
64	Microfracture of polycrystals and the Bishop & Hill stress states. <i>Scripta Metallurgica</i> , 1986, 20, 1111-1114.	1.2	6
65	Interface stability under biaxial loading of bilayered sheets between rigid surfaces“l. Bifurcation analysis. <i>International Journal of Solids and Structures</i> , 1997, 34, 603-623.	2.7	6
66	Si enrichment of conventional electrical steel by means of physical vapour deposition. <i>Scripta Materialia</i> , 1999, 41, 729-735.	5.2	6
67	Ciels de Van Gogh et propriétés mécaniques. <i>European Physical Journal Special Topics</i> , 1998, 08, Pr4-155-Pr4-165.	0.2	5
68	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.	0.1	5
69	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
70	Diffusional Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2011, 81, 2564-2580.	4.4	5
71	Structure and texture of twin roll cast strips of Zn-Cu-Ti zinc alloy. <i>Materials Science and Technology</i> , 2014, 30, 91-95.	1.6	5
72	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.	1.6	5

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73	ECAE, una tecnología de procesamiento emergente para producir propiedades relevantes en materiales metálicos. Revista De Metalurgia, 2001, 37, 673-692.	0.5	5
74	Size effects in powder compaction. Journal of Materials Research, 2001, 16, 1238-1240.	2.6	4
75	Atomistic simulation of the elongation response of a <011> oriented columnar nano-grain bcc Fe polycrystalline sample. Meccanica, 2016, 51, 401-413.	2.0	4
76	Elasto-plastic behaviour of a columnar structure of nanocrystalline iron with sharp <011> fibre texture. Materialia, 2018, 2, 218-230.	2.7	4
77	Propiedades mecánicas a tracción y mecanismos de endurecimiento de un acero TWIP a altas velocidades de deformación: relación de Hall-Petch. Revista De Metalurgia, 2014, 50, e031.	0.5	4
78	Pérdida de ductilidad debido a la descarburación y pérdida de Mn de un acero TWIP de tamaño de grano grosero. Revista De Metalurgia, 2017, 53, 109.	0.5	4
79	The transformation substructure of quenched iron-copper alloys. Metallography, 1979, 12, 215-223.	0.4	3
80	Lithic tool making by Amazonian palaeoindians: a case-study on materials selection. Journal of Materials Science Letters, 1997, 16, 465-468.	0.5	3
81	A novel method of analysis of superplastic behaviour. Materials Letters, 2004, 58, 3052-3057.	2.6	3
82	Roughness of a mode I in-plane crack front propagating along a heterogeneous cohesive interface. Journal of Computer-Aided Materials Design, 2007, 14, 15-24.	0.7	3
83	New mesoscopic constitutive model for deformation of pearlitic steels up to moderate strains. IOP Conference Series: Materials Science and Engineering, 2017, 219, 012010.	0.6	3
84	Estructura y textura de un meteorito metálico de tipo octaedrita (Gibeon). Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 313-318.	1.9	3
85	Un estudio adicional de la cinética de recristalización y crecimiento de grano del acero twip laminado en frío. Revista De Metalurgia, 2018, 54, 131.	0.5	3
86	A transmission electron microscopy study of lath martensite habit planes in Fe-Cu alloys. Materials Science and Engineering, 1980, 43, 109-113.	0.1	2
87	Microbands in Cold Worked Metals. , 1982, , 547-552.		2
88	Mode II loading behaviour of intergranular cracks lying on a $\pm 17(530)/[001]$ symmetrical tilt boundary in copper. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2107-2112.	0.8	2
89	Micromechanical model of 3D cross-ply copper matrix composite reinforced with SiC fibres. Engineering Failure Analysis, 2009, 16, 2559-2566.	4.0	2
90	Towards a reliable procedure for the measurement of elastic modulus in instrumented indentation. Philosophical Magazine, 2011, 91, 1400-1408.	1.6	2

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91	Nanoporous gold periodical linear patterns obtained by laser interference thermal treatment. Thin Solid Films, 2013, 548, 69-74.	1.8	2
92	Modificaci3n de las texturas y de los 3ndices de embutibilidad de chapas de aleaciones de aluminio Al 1050 y Al-Mg 5754 mediante laminaci3n asim3trica. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2004, 43, 175-178.	1.9	2
93	Medida de la dureza de 3lidos mediante nanoindentaci3n. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2005, 44, 259-264.	1.9	2
94	FATIGUE CRACK PATH IN MEDIUM-HIGH CARBON FERRITE-PEARLITE STRUCTURES. , 1984, , 2073-2079.		1
95	Toughness and Fatigue Crack Growth Rate of Textured Metals. Textures and Microstructures, 1990, 12, 77-87.	0.2	1
96	Optimal SPD Processing of Plates by Constrained Groove Pressing (CGP). , 2005, , 491-497.		1
97	Adhesion Studies in Low-k Interconnects Using Cross Sectional Nanoindentation. AIP Conference Proceedings, 2006, , .	0.4	1
98	A comparison of the structure and mechanical properties of commercially pure tungsten rolled plates for the target of the European spallation source. International Journal of Refractory Metals and Hard Materials, 2018, 70, 45-55.	3.8	1
99	Effects of temperature and strain rate in strain hardening in torsion of a twinning-induced plasticity steel. Materials Science and Technology, 2019, 35, 669-679.	1.6	1
100	Efficiency of directional transformation on the oriented growth of eutectoid alloys. Materials Science and Engineering, 1978, 34, 7-12.	0.1	0
101	Unusual slip systems on high purity aluminium single-crystals. Scripta Metallurgica, 1978, 12, 169-174.	1.2	0
102	Comments on a paper by Hartley and 3enal. Scripta Metallurgica, 1984, 18, 417-418.	1.2	0
103	How a stable crack extension changes the Weibull modulus of cleavage fracture probability. International Journal of Fracture, 1993, 62, R19-R27.	2.2	0
104	Plastic flow of a two-phase solid-liquid metallic system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 175, 159-166.	5.6	0
105	Interface stability under biaxial loading of bilayered sheets between rigid surfaces3. Stability of perturbations. International Journal of Solids and Structures, 1997, 34, 625-638.	2.7	0
106	Intrinsic and Extrinsic Size Effects in Plasticity by Dislocation Glide. Materials Research Society Symposia Proceedings, 2000, 653, .	0.1	0
107	Intrinsic and Extrinsic Size Effects in Plasticity by Dislocation Glide. Materials Research Society Symposia Proceedings, 2000, 653, 1.	0.1	0
108	Residual Stresses in Cold-drawn Pearlite Rods by High Energy Synchrotron Radiation and Thermal Neutron Diffraction. Journal of Neutron Research, 2004, 12, 175-180.	1.1	0

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109	Stage IV: Microscopic or Mesoscopic Effect?. , 2005, , 65-71.		0
110	Size Effect in the Shear-Coupled Migration of Grain Boundaries Pinned by Triple Junctions. Materials Research Society Symposia Proceedings, 2009, 1224, 1.	0.1	0
111	Plastically-Induced Volume Deformation of Nanocrystalline $\hat{\pm}$ -Fe with a $\langle 110 \rangle$ Columnar Structure. Metals, 2020, 10, 1649.	2.3	0
112	Enriquecimiento en Si mediante PVD de chapas magnéticas convencionales para aplicaciones a altas frecuencias. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 351-354.	1.9	0
113	Caracterización de la adhesión en películas delgadas mediante nanoindentación. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 319-322.	1.9	0
114	La intercara fibra-matriz de un compuesto CMC de SiC-SiC: Comparación de imágenes SEM, TEM y AFM. Revista De Metalurgia, 1998, 34, 226-231.	0.5	0