

# Javier Gil Sevillano

## List of Publications by Year in descending order

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114  
papers

3,010  
citations

218381

26  
h-index

174990

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.	16.0	716
2	Cross-sectional nanoindentation: a new technique for thin film interfacial adhesion characterization. <i>Acta Materialia</i> , 1999, 47, 4405-4413.	3.8	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.	1.2	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.	3.8	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.	3.8	81
7	Modelling cleavage fracture of bainitic steels. <i>Acta Metallurgica Et Materialia</i> , 1994, 42, 2057-2068.	1.9	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.	3.1	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.	3.1	79
10	Intrinsic size effects in plasticity by dislocation glide. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 393-405.	2.6	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.	2.6	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.	1.1	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.	1.1	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 &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 201, 103-110.	2.6	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.	2.6	43
21	Geometrically necessary twins and their associated size effects. <i>Scripta Materialia</i> , 2008, 59, 135-138.	2.6	41
22	Fracture characterization in patterned thin films by cross-sectional nanoindentation. <i>Acta Materialia</i> , 2006, 54, 3453-3462.	3.8	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.	3.6	33
25	The heterogeneous nature of slip in ice single crystals deformed under torsion. <i>Philosophical Magazine</i> , 2006, 86, 4259-4270.	0.7	29
26	Hall-Petch behaviour induced by plastic strain gradients. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 365, 186-190.	2.6	27
27	Measurement and modelling of residual stresses in straightened commercial eutectoid steel rods. <i>Acta Materialia</i> , 2005, 53, 4415-4425.	3.8	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.	3.1	25
30	Consolidation, microstructure and mechanical properties of newly developed TiB <sub>2</sub> -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.	2.6	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.	1.2	24
33	Assessment of elastic anisotropy and incipient plasticity in Fe <sub>3</sub> C by nanoindentation. <i>Journal of Materials Research</i> , 2012, 27, 45-52.	1.2	24
34	Fracture toughness of W heavy metal alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992, 157, 151-160.	2.6	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.	1.2	23
36	Detailed assessment of indentation size-effect in recrystallized and highly deformed niobium. <i>Acta Materialia</i> , 2006, 54, 3445-3452.	3.8	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.	1.7	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.	0.4	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.	1.2	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-strain deformation microstructure. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1999, 357, 1603-1619.	1.6	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.	1.7	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.	3.0	16
45	Fragmentation of as-drawn pearlitic steel wires during torsion tests. <i>Engineering Fracture Mechanics</i> , 1998, 60, 255-272.	2.0	16
46	In situ Neutron Diffraction Study of Internal Microstresses Developed by Plastic Elongation in $\alpha$ -Fe and $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> Textured BCC Wires. <i>Advanced Engineering Materials</i> , 2008, 10, 951-954.	1.6	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.	0.8	14
48	Adhesion studies in integrated circuit interconnect structures. <i>Engineering Failure Analysis</i> , 2007, 14, 349-354.	1.8	14
49	Microcompression tests of single-crystalline and ultrafine grain Bi <sub>2</sub> Te <sub>3</sub> thermoelectric material. <i>Journal of Materials Research</i> , 2015, 30, 2593-2604.	1.2	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.	3.6	13
51	Dynamic subgrain coalescence during low-temperature large plastic strains. <i>Journal of Materials Science</i> , 1984, 19, 423-427.	1.7	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.	1.3	11
53	Geometrical Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2010, 80, 1469-1486.	2.4	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.	2.1	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.	1.4	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.	1.2	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.	1.4	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.	1.0	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 Española De Cerámica Y Vidrio</i> , 2013, 52, 137-142.	0.9	9
62	Safety maps in bimetallic extrusions. <i>Journal of Materials Processing Technology</i> , 1996, 60, 133-140.	3.1	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.	1.3	6
66	Si enrichment of conventional electrical steel by means of physical vapour deposition. <i>Scripta Materialia</i> , 1999, 41, 729-735.	2.6	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.	0.7	5
70	Diffusional Monte Carlo model of liquid-phase sintering. <i>Mathematics and Computers in Simulation</i> , 2011, 81, 2564-2580.	2.4	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.	0.8	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.	0.8	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.	0.1	5
74	Size effects in powder compaction. Journal of Materials Research, 2001, 16, 1238-1240.	1.2	4
75	Atomistic simulation of the elongation response of a <011> oriented columnar nano-grain bcc Fe polycrystalline sample. Meccanica, 2016, 51, 401-413.	1.2	4
76	Elasto-plastic behaviour of a columnar structure of nanocrystalline iron with sharp <011> fibre texture. Materialia, 2018, 2, 218-230.	1.3	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.	0.1	4
78	Pérdida de ductilidad debido a la descarburación y pérdida de Mn de un acero TWIP de tamaño de grano grueso. Revista De Metalurgia, 2017, 53, 109.	0.1	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.	1.3	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.	0.3	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.	0.9	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.	0.1	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.	1.8	2
90	Towards a reliable procedure for the measurement of elastic modulus in instrumented indentation. Philosophical Magazine, 2011, 91, 1400-1408.	0.7	2

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91	Nanoporous gold periodical linear patterns obtained by laser interference thermal treatment. <i>Thin Solid Films</i> , 2013, 548, 69-74.	0.8	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. <i>Boletin De La Sociedad Espanola De Ceramica Y Vidrio</i> , 2004, 43, 175-178.	0.9	2
93	Medida de la dureza de 3lidos mediante nanoindentaci3n. <i>Boletin De La Sociedad Espanola De Ceramica Y Vidrio</i> , 2005, 44, 259-264.	0.9	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. <i>Textures and Microstructures</i> , 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. <i>AIP Conference Proceedings</i> , 2006, , .	0.3	1
98	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.	1.7	1
99	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.	0.8	1
100	Efficiency of directional transformation on the oriented growth of eutectoid alloys. <i>Materials Science and Engineering</i> , 1978, 34, 7-12.	0.1	0
101	Unusual slip systems on high purity aluminium single-crystals. <i>Scripta Metallurgica</i> , 1978, 12, 169-174.	1.2	0
102	Comments on a paper by Hartley and 3enal. <i>Scripta Metallurgica</i> , 1984, 18, 417-418.	1.2	0
103	How a stable crack extension changes the Weibull modulus of cleavage fracture probability. <i>International Journal of Fracture</i> , 1993, 62, R19-R27.	1.1	0
104	Plastic flow of a two-phase solid-liquid metallic system. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1994, 175, 159-166.	2.6	0
105	Interface stability under biaxial loading of bilayered sheets between rigid surfaces3. Stability of perturbations. <i>International Journal of Solids and Structures</i> , 1997, 34, 625-638.	1.3	0
106	Intrinsic and Extrinsic Size Effects in Plasticity by Dislocation Glide. <i>Materials Research Society Symposia Proceedings</i> , 2000, 653, .	0.1	0
107	Intrinsic and Extrinsic Size Effects in Plasticity by Dislocation Glide. <i>Materials Research Society Symposia Proceedings</i> , 2000, 653, 1.	0.1	0
108	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.	0.4	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.	1.0	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.	0.9	0
113	Caracterización de la adhesión en películas delgadas mediante nanoindentación. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 319-322.	0.9	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.	0.1	0