Jose Valdemar Fernandes

List of Publications by Year
in descending order

100	2,155	279798	254184
papers	citations	23 h-index	43 g-index

102	102	102	1720
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparison between Berkovich, Vickers and conical indentation tests: A three-dimensional numerical simulation study. International Journal of Solids and Structures, 2009, 46, 1095-1104.	2.7	182
2	Material parameters identification: Gradient-based, genetic and hybrid optimization algorithms. Computational Materials Science, 2008, 44, 339-346.	3.0	172
3	Ultra-microhardness testing procedure with Vickers indenter. Surface and Coatings Technology, 2002, 149, 27-35.	4.8	141
4	Three-dimensional numerical simulation of Vickers indentation tests. International Journal of Solids and Structures, 2006, 43, 784-806.	2.7	107
5	A new approach for reverse analyses in depth-sensing indentation using numerical simulation. Acta Materialia, 2007, 55, 69-81.	7.9	99
6	Effects of ion bombardment on properties of d.c. sputtered superhard (Ti, Si, Al)N nanocomposite coatings. Surface and Coatings Technology, 2002, 151-152, 515-520.	4.8	81
7	On the determination of the Youngâ€™s modulus of thin films using indentation tests. International Journal of Solids and Structures, 2007, 44, 8313-8334.	2.7	76
8	Plastic behaviour of copper sheets during sequential tension tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 147, 143-154.	5.6	75
9	Dislocation microstructures in steel during deep drawing. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1983, 48, 841-870.	0.6	71
10	Numerical study of the plastic behaviour in tension of welds in high strength steels. International Journal of Plasticity, 2004, 20, 1-18.	8.8	71
11	Effect of grain size on substructural evolution and plastic behaviour of copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 118, 97-105.	5.6	65
12	Influence of ductile interlayers on mechanical behaviour of hard coatings under depth-sensing indentation: a numerical study on TiAlN. Journal of Materials Science, 2010, 45, 3812-3823.	3.7	47
13	Mechanical characterization of single-walled carbon nanotubes: Numerical simulation study. Composites Part B: Engineering, 2015, 75, 73-85.	12.0	47
14	Neutron-irradiated reactor pressure vessel steels investigated by positron annihilation. Journal of Nuclear Materials, 1989, 161, 1-12.	2.7	35
15	A new strategy for the simultaneous identification of constitutive laws parameters of metal sheets using a single test. Computational Materials Science, 2014, 85, 102-120.	3.0	32
16	Estimation of Young's Modulus and of Hardness by Ultra-Low Load Hardness Tests with a Vickers Indenter. Journal of Testing and Evaluation, 1994, 22, 365-369.	0.7	30
17	Influence of Vickers tip imperfection on depth sensing indentation tests. International Journal of Solids and Structures, 2007, 44, 2732-2747.	2.7	29
18	Strain path change effect on dislocation microstructure of multicrystalline copper sheets. Materials Chemistry and Physics, 2006, 98, 44-50.	4.0	28

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19	Development and persistence of microbands in copper deformed under complex strain paths. Scripta Metallurgica Et Materialia, 1993, 28, 1335-1340.	1.0	27
20	Inverse Strategies for Identifying the Parameters of Constitutive Laws of Metal Sheets. Advances in Materials Science and Engineering, 2016, 2016, 1-18.	1.8	27
21	Single and ensemble classifiers for defect prediction in sheet metal forming under variability. Neural Computing and Applications, 2020, 32, 12335-12349.	5.6	27
22	Numerical simulation study of the elastic properties of single-walled carbon nanotubes containing vacancy defects. Composites Part B: Engineering, 2016, 89, 155-168.	12.0	26
23	Evolution of the microstructure, residual stresses, and mechanical properties of Wâ€“Siâ€“N coatings after thermal annealing. Journal of Materials Research, 2005, 20, 1356-1368.	2.6	25
24	On the determination of the work hardening curve using the bulge test. International Journal of Mechanical Sciences, 2016, 105, 158-181.	6.7	25
25	EBSD Analysis of Metal Matrix Nanocomposite Microstructure Produced by Powder Metallurgy. Nanomaterials, 2019, 9, 878.	4.1	22
26	A model for coated surface hardness. Surface and Coatings Technology, 2000, 131, 457-461.	4.8	21
27	Composites from WC powders sputter-deposited with iron rich binders. Ceramics International, 2009, 35, 1617-1623.	4.8	21
28	The effect of strain path change on the mechanical behaviour of copper sheets. Journal of Materials Processing Technology, 1990, 24, 313-322.	6.3	19
29	A Simple Method for Estimation of Residual Stresses by Depthâ€Sensing Indentation. Strain, 2012, 48, 75-87.	2.4	19
30	Structure and properties of sputtered TiAlâ€“M (M=Ag, Cr) thin films. Surface and Coatings Technology, 1999, 120-121, 297-302.	4.8	18
31	Influence of Substrate Hardness on the Response of Wâ€“Câ€“Co-coated Samples to Depth-sensing Indentation. Journal of Materials Research, 2000, 15, 1766-1772.	2.6	18
32	Mechanical behaviour and the evolution of the dislocation structure of copper polycrystal deformed under fatigueâ€“tension and tensionâ€“fatigue sequential strain paths. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 348, 133-144.	5.6	18
33	Shear modulus and Poisson's ratio of singleâ€walled carbon nanotubes: Numerical evaluation. Physica Status Solidi (B): Basic Research, 2016, 253, 366-376.	1.5	18
34	Identification of material parameters for thin sheets from single biaxial tensile test using a sequential inverse identification strategy. International Journal of Material Forming, 2016, 9, 547-571.	2.0	17
35	Further development of the hybrid model for polycrystal deformation. Acta Materialia, 2000, 48, 1919-1930.	7.9	16
36	Numerical simulation of tensile tests of prestrained sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 264, 130-138.	5.6	15

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37	On the determination of the film hardness in hard film/substrate composites using depth-sensing indentation. Ceramics International, 2013, 39, 6251-6263.	4.8	15
38	Anisotropy and plastic flow in the circular bulge test. International Journal of Mechanical Sciences, 2017, 128-129, 70-93.	6.7	15
39	Mechanical characterisation of Î³-TiAl thin films obtained by two different sputtering routes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 147-152.	5.6	14
40	Strain path and work-hardening behavior of brass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 507, 13-21.	5.6	14
41	Numerical study on the effect of mechanical properties variability in sheet metal forming processes. International Journal of Advanced Manufacturing Technology, 2018, 96, 561-580.	3.0	14
42	The coated surface hardness: a kinematic model. Thin Solid Films, 1998, 335, 153-159.	1.8	13
43	On the equivalence between sets of parameters of the yield criterion and the isotropic and kinematic hardening laws. International Journal of Material Forming, 2015, 8, 505-515.	2.0	13
44	Inverse identification of the Swift law parameters using the bulge test. International Journal of Material Forming, 2017, 10, 493-513.	2.0	13
45	Plastic behaviour of copper sheets subjected to a double strain-path change. Journal of Materials Processing Technology, 1995, 47, 261-272.	6.3	12
46	Yield stress after double strain-path change. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 284, 64-69.	5.6	12
47	Inverse identification of the work hardening law from circular and elliptical bulge tests. Journal of Materials Processing Technology, 2020, 279, 116573.	6.3	12
48	Performance Comparison of Parametric and Non-Parametric Regression Models for Uncertainty Analysis of Sheet Metal Forming Processes. Metals, 2020, 10, 457.	2.3	12
49	Characterization of Niâ€“CNTs Nanocomposites Produced by Ball-Milling. Metals, 2020, 10, 2.	2.3	12
50	Developments in the evaluation of elastic properties of carbon nanotubes and their heterojunctions by numerical simulation. AIMS Materials Science, 2017, 4, 706-737.	1.4	12
51	On the Determination of Elastic Properties of Single-Walled Boron Nitride Nanotubes by Numerical Simulation. Materials, 2021, 14, 3183.	2.9	11
52	Use of ultramicroindentation to evaluate the degradation of sputtered coatings. Vacuum, 1999, 52, 157-162.	3.5	10
53	Non-uniform deformation after prestrain. European Journal of Mechanics, A/Solids, 2000, 19, 209-221.	3.7	10
54	Normal stress components during shear tests of metal sheets. International Journal of Mechanical Sciences, 2019, 164, 105169.	6.7	10

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55	Investigation on the Strengthening Mechanisms of Nickel Matrix Nanocomposites. Nanomaterials, 2021, 11, 1426.	4.1	10
56	The influence of silver on the structure and mechanical properties of (TiAl)-based intermetallics. Thin Solid Films, 1999, 343-344, 43-46.	1.8	9
57	On the identification of kinematic hardening with reverse shear test. Engineering With Computers, 2015, 31, 681-690.	6.1	9
58	Modelling and Simulation of Sheet Metal Forming Processes. Metals, 2019, 9, 1356.	2.3	9
59	New Mandrel Design for Ring Hoop Tensile Testing. Experimental Techniques, 2021, 45, 769-787.	1.5	9
60	Mechanical Characterization of Multiwalled Carbon Nanotubes: Numerical Simulation Study. Materials, 2020, 13, 4283.	2.9	9
61	Strengthening Mechanisms of Aluminum Matrix Nanocomposites Reinforced with CNTs Produced by Powder Metallurgy. Metals, 2021, 11, 1711.	2.3	8
62	Nanostructured Mo3Al-based composites strengthened by Al2O3 precipitates. Journal of Alloys and Compounds, 2010, 502, 480-487.	5.5	7
63	Numerical Simulation of the Depth-Sensing Indentation Test with Knoop Indenter. Metals, 2018, 8, 885.	2.3	7
64	Complex strain paths in polycrystalline copper: microstructural aspects. Materials Research, 1999, 2, 185-189.	1.3	6
65	Reverse analysis in depth-sensing indentation for evaluation of the Young's modulus of thin films. Philosophical Magazine, 2008, 88, 313-325.	1.6	6
66	Young's modulus of thin films using depth-sensing indentation. Philosophical Magazine Letters, 2010, 90, 9-22.	1.2	6
67	On the characterization of the plastic anisotropy in orthotropic sheet metals with a cruciform biaxial test. IOP Conference Series: Materials Science and Engineering, 2010, 10, 012142.	0.6	6
68	Characterisation of Modified Sputtered (TiAl)-Based Intermetallic Materials Doped with Silver and Chromium. Key Engineering Materials, 2000, 188, 37-44.	0.4	5
69	Optimization of the Phenomenological Constitutive Models Parameters Using Genetic Algorithms. , 2007, , 35-54.		5
70	Numerical Simulation of the Mechanical Behaviour of the Multi-Walled Carbon Nanotubes. Journal of Nano Research, 0, 47, 106-119.	0.8	5
71	On the evaluation of the ductility of thin films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 337, 97-103.	5.6	4
72	Analytical sensitivity matrix for the inverse identification of hardening parameters of metal sheets. European Journal of Mechanics, A/Solids, 2019, 75, 205-215.	3.7	4

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73	Elastic Properties of Single-Walled Phosphide Nanotubes: Numerical Simulation Study. Nanomaterials, 2022, 12, 2360.	4.1	4
74	Numerical Study of the Influence of Imperfection of the Tip of a Vickers Indenter on Ultramicrohardness Test Results. Key Engineering Materials, 2002, 230-232, 525-528.	0.4	3
75	Numerical Simulation of Ultramicrohardness Tests in Thin Films. Materials Science Forum, 2004, 455-456, 694-698.	0.3	3
76	Mechanical properties of sintered La9.33Si2Ge4O26 oxyapatite materials for SOFC electrolytes. Ceramics International, 2012, 38, 6151-6156.	4.8	3
77	How to Combine the Parameters of the Yield Criteria and the Hardening Law. Key Engineering Materials, 0, 554-557, 1195-1202.	0.4	3
78	Comparing metamodeling techniques for variability analysis in sheet metal forming processes. AIP Conference Proceedings, 2019, , .	0.4	3
79	An approach using thin films as a predictive way to produce new bulk materials. Surface and Coatings Technology, 2000, 131, 162-166.	4.8	2
80	Dislocation Microstructure in Copper Multicrystals Deformed under the Sequences: Rolling - Tension and Tension - Rolling. Materials Science Forum, 2006, 514-516, 589-593.	0.3	2
81	Strain Path Change Effect on Deformation Behaviour of Materials with Low-to-Moderate Stacking Fault Energy. Materials Science Forum, 2008, 587-588, 420-424.	0.3	2
82	Numerical Simulation of the Mechanical Behaviour of Single-Walled Carbon Nanotube Heterojunctions. Journal of Nano Research, 2016, 38, 73-87.	0.8	2
83	Numerical Study on the Forming Behaviour of Multilayer Sheets. Metals, 2020, 10, 716.	2.3	2
84	Theoretical Prediction of the Limit Curves for Simulation of Plastic Instability. Studies in Applied Mechanics, 1987, , 161-170.	0.4	2
85	Taylor Analysis for {111}‹112› Twinning on One System and {111}‹110› Slip Under Tension and Compression Flow Conditions. Key Engineering Materials, 2002, 230-232, 509-512.	0.4	1
86	Microstructural Plastic Behaviour of AISI 304 Austenitic Stainless Steel. Materials Science Forum, 2004, 455-456, 280-284.	0.3	1
87	Influence of the Mechanical Microtwinning on the Plastic Behaviour of the AISI 304 Stainless Steel. Materials Science Forum, 2004, 455-456, 711-716.	0.3	1
88	A Numerical Study on the Mechanical Behaviour of Hard Coatings with Ductile Interlayers under Depth-Sensing Indentation. Materials Science Forum, 2010, 636-637, 1194-1198.	0.3	1
89	Inverse analysis methodology on metal sheets for constitutive parameters identification. International Journal of Materials Engineering Innovation, 2013, 4, 101.	0.5	1
90	Mechanical Characterisation of Single-Walled Carbon Nanotube Heterojunctions: Numerical Simulation Study. Materials, 2020, 13, 5100.	2.9	1

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91	Assessment of scatter on material properties and its influence on formability in hole expansion. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 1262-1270.	1.1	1
92	Positron studies in polycrystalline deformed copper. Crystal Research and Technology, 1987, 22, K185-K190.	1.3	0
93	Influence of Plastic Deformation of the Heat Affected Zone on the Mechanical Behaviour of Welds in High Strength Steels. Key Engineering Materials, 2003, 233-236, 791-796.	0.4	0
94	Cyclic Deformation Behaviour of Copper Polycrystals Pre-Strained in Tension. Materials Science Forum, 2004, 455-456, 330-334.	0.3	0
95	Plastic Behaviour of Copper Polycrystal Subjected to Fatigue-Tension Sequential Loading Tests. Materials Science Forum, 2006, 514-516, 897-900.	0.3	0
96	Strain and Stress Distribution in Vickers Indentation of Coated Materials. Materials Science Forum, 2006, 514-516, 1472-1476.	0.3	0
97	Mechanical Properties Evaluation of Bulk and Coated Material by Depth Sensing Indentation. , 0, , .		0
98	Numerical Study of Mechanical Behaviour of Heterogeneous Materials. Materials Science Forum, 2012, 730-732, 549-554.	0.3	0
99	Mechanical characterization of thin films by depth-sensing indentation. , 2015, , 407-425.		0
100	The Effect of Vacancy Defects on the Evaluation of the Mechanical Properties of Single-Wall Carbon Nanotubes: Numerical Simulation Study. Advanced Structured Materials, 2015, , 323-339.	0.5	0