

Damien Faurie

List of Publications by Year in descending order

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92
papers

1,184
citations

393982

19
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476904

29
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92
all docs

92
docs citations

92
times ranked

1010
citing authors

#	ARTICLE	IF	CITATIONS
1	Study of texture effect on elastic properties of Au thin films by X-ray diffraction and in situ tensile testing. <i>Acta Materialia</i> , 2006, 54, 4503-4513.	3.8	67
2	Measurement of the elastic constants of textured anisotropic thin films from x-ray diffraction data. <i>Applied Physics Letters</i> , 2003, 83, 473-475.	1.5	52
3	Development of a synchrotron biaxial tensile device for in situ characterization of thin films mechanical response. <i>Review of Scientific Instruments</i> , 2010, 81, 103903.	0.6	45
4	In situ diffraction strain analysis of elastically deformed polycrystalline thin films, and micromechanical interpretation. <i>Journal of Applied Crystallography</i> , 2009, 42, 1073-1084.	1.9	41
5	Bending strain-tunable magnetic anisotropy in Co ₂ FeAl Heusler thin film on Kapton®. <i>Applied Physics Letters</i> , 2014, 105, 062409.	1.5	41
6	Voltage-induced strain control of the magnetic anisotropy in a Ni thin film on flexible substrate. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	40
7	Structural and elastic properties of ternary metal nitrides Ti _x Ta _{1-x} N alloys: First-principles calculations versus experiments. <i>Surface and Coatings Technology</i> , 2013, 215, 199-208.	2.2	39
8	Combined synchrotron X-ray and image-correlation analyses of biaxially deformed W/Cu nanocomposite thin films on Kapton. <i>Journal of Applied Crystallography</i> , 2011, 44, 1071-1079.	1.9	38
9	Elastic anisotropy of polycrystalline Au films: Modeling and respective contributions of X-ray diffraction, nanoindentation and Brillouin light scattering. <i>Acta Materialia</i> , 2010, 58, 4998-5008.	3.8	36
10	Synchrotron X-ray diffraction experiments with a prototype hybrid pixel detector. <i>Journal of Applied Crystallography</i> , 2012, 45, 38-47.	1.9	34
11	Elastic-strain distribution in metallic film-polymer substrate composites. <i>Applied Physics Letters</i> , 2010, 96, 041905.	1.5	31
12	Measurement of thin film elastic constants by X-ray diffraction. <i>Thin Solid Films</i> , 2004, 469-470, 201-205.	0.8	28
13	Determination of elastic constants of a fiber-textured gold film by combining synchrotron x-ray diffraction and in situ tensile testing. <i>Journal of Applied Physics</i> , 2005, 98, 093511.	1.1	28
14	Yield surface of polycrystalline thin films as revealed by non-equibiaxial loadings at small deformation. <i>Acta Materialia</i> , 2013, 61, 5067-5077.	3.8	27
15	Bulk Ni-W alloys with a composite-like microstructure processed by spark plasma sintering: Microstructure and mechanical properties. <i>Materials and Design</i> , 2016, 89, 1181-1190.	3.3	25
16	Laue-DIC: a new method for improved stress field measurements at the micrometer scale. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 980-994.	1.0	23
17	Elastic behavior of polycrystalline thin films inferred from in situ micromechanical testing and modeling. <i>Applied Physics Letters</i> , 2006, 89, 061911.	1.5	21
18	In situ x-ray diffraction analysis of 2D crack patterning in thin films. <i>Acta Materialia</i> , 2019, 165, 177-182.	3.8	21

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19	Deformation modes of nanostructured thin film under controlled biaxial deformation. Thin Solid Films, 2013, 530, 30-34.	0.8	20
20	Multicracking and Magnetic Behavior of Ni ₈₀ Fe ₂₀ Nanowires Deposited onto a Polymer Substrate. Nano Letters, 2018, 18, 3199-3202.	4.5	19
21	Comparative study of the mechanical properties of nanostructured thin films on stretchable substrates. Journal of Applied Physics, 2014, 116, .	1.1	18
22	Spectroscopic investigation of elastic and magnetoelastic properties of CoFeB thin films. Journal Physics D: Applied Physics, 2016, 49, 145003.	1.3	18
23	Combining ferromagnetic resonator and digital image correlation to study the strain induced resonance tunability in magnetoelectric heterostructures. Review of Scientific Instruments, 2014, 85, 103905.	0.6	17
24	Origin of relationship between ferromagnetic response and damage in stretched systems. Scientific Reports, 2018, 8, 13695.	1.6	16
25	Micro-strip ferromagnetic resonance study of strain-induced anisotropy in amorphous FeCuNbSiB film on flexible substrate. Journal of Applied Physics, 2014, 116, 123903.	1.1	15
26	Ferromagnetic resonance in thin films submitted to multiaxial stress state: application of the uniaxial equivalent stress concept and experimental validation. Journal Physics D: Applied Physics, 2016, 49, 265001.	1.3	15
27	Mechanical properties of CoCrCuFeNi multi-principal element alloy thin films on Kapton substrates. Surface and Coatings Technology, 2020, 402, 126474.	2.2	15
28	Structural, static and dynamic magnetic properties of Co ₂ MnGe thin films on a sapphire a-plane substrate. Journal of Applied Physics, 2010, 108, 063926.	1.1	14
29	Unambiguous magnetoelastic effect on residual anisotropy in thin films deposited on flexible substrates. Europhysics Letters, 2016, 114, 17003.	0.7	14
30	Role of layer order on the equi-biaxial behavior of Al/Mo bilayers. Scripta Materialia, 2021, 194, 113656.	2.6	14
31	Structural and elastic properties of single-crystal and polycrystalline Ti _{1-x} Zr _x N alloys: A computational study. Journal of Alloys and Compounds, 2012, 536, S138-S142.	2.8	13
32	Optimization of indirect magnetoelectric effect in thin-film/substrate/piezoelectric-actuator heterostructure using polymer substrate. Applied Physics Letters, 2014, 105, 052411.	1.5	13
33	Static and dynamic study of magnetic properties in FeNi film on flexible substrate, effect of applied stresses. European Physical Journal B, 2012, 85, 1.	0.6	12
34	<i>In situ</i> monitoring of X-ray strain pole figures of a biaxially deformed ultra-thin film on a flexible substrate. Journal of Applied Crystallography, 2014, 47, 181-187.	1.9	12
35	Fragmentation and adhesion properties of CoFeB thin films on polyimide substrate. Applied Physics Letters, 2017, 110, .	1.5	12
36	Ferromagnetic resonance investigation of physical origins of modification of the perpendicular magnetic anisotropy in Pd/Co layered films in the presence of hydrogen gas. Journal of Applied Physics, 2017, 122, .	1.1	12

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37	A review on nanostructured thin films on flexible substrates: links between strains and magnetic properties. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 233002.	0.7	12
38	Combining Laue Microdiffraction and Digital Image Correlation for Improved Measurements of the Elastic Strain Field with Micrometer Spatial Resolution. <i>Procedia IUTAM</i> , 2012, 4, 133-143.	1.2	11
39	SiO_2 analysis in thin films using 2D detectors: Non-linearity due to set-up, stress state and microstructure. <i>Thin Solid Films</i> , 2013, 530, 25-29.	0.8	11
40	Annealing temperature and thickness dependencies of structural and magnetic properties of Co_2FeAl thin films. <i>Physical Review B</i> , 2016, 94, .	1.1	11
41	Large area periodic ferromagnetic nanowires deposited onto a polymer substrate. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	11
42	In situ tailoring of magnetization configuration in NiFe film deposited onto flexible substrate. <i>Journal of Applied Physics</i> , 2012, 111, 07A926.	1.1	10
43	Relaxation mechanisms in a gold thin film on a compliant substrate as revealed by X-ray diffraction. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	10
44	Local Stiffness Effect on Ferromagnetic Response of Nanostructure Arrays in Stretchable Systems. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800509.	1.2	10
45	Data on the impact of increasing the W amount on the mass density and compressive properties of Ni-W alloys processed by spark plasma sintering. <i>Data in Brief</i> , 2016, 7, 1405-1408.	0.5	9
46	Setup for high-temperature surface Brillouin light scattering: Application to opaque thin films and coatings. <i>Review of Scientific Instruments</i> , 2017, 88, 023903.	0.6	9
47	Elastic properties of polycrystalline gold thin films: Simulation and X-ray diffraction experiments. <i>Surface and Coatings Technology</i> , 2006, 201, 4300-4304.	2.2	8
48	Controlled biaxial deformation of nanostructured W/Cu thin films studied by X-ray diffraction. <i>Surface and Coatings Technology</i> , 2010, 205, 1420-1425.	2.2	8
49	Deposition of ultra-thin gold film on in situ loaded polymeric substrate for compression tests. <i>Materials Letters</i> , 2012, 73, 99-102.	1.3	8
50	Mastering the biaxial stress state in nanometric thin films on flexible substrates. <i>Applied Surface Science</i> , 2014, 306, 70-74.	3.1	8
51	Effective 90-degree magnetization rotation in Co_2FeAl thin film/piezoelectric system probed by microstripline ferromagnetic resonance. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	8
52	Micromagnetic modeling of nanostructures subject to heterogeneous strain fields. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 355004.	1.3	8
53	Fracture behavior of Ni-W alloy probed by in situ synchrotron X-ray diffraction. <i>Materials Letters</i> , 2019, 239, 116-119.	1.3	8
54	Prospects toward flexible magnonic systems. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	8

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55	Structural and magnetic properties of Co ₂ MnSi thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1328-1333.	0.8	7
56	Phase transition signature on elastic constants in Al _{1-x} Cr _x Ny ternary alloys thin films. Applied Physics Letters, 2013, 103, 041601.	1.5	7
57	Differentiated Strain-Control of Localized Magnetic Modes in Antidot Arrays. ACS Applied Materials & Interfaces, 2021, 13, 29906-29915.	4.0	7
58	Static and dynamic magnetic properties of epitaxial Fe _{1.7} Ge thin films grown on Ge(111). Journal of Applied Physics, 2012, 111, 07D502.	1.1	6
59	Strain ratio effects in mechanical properties of supported thin films. Journal of Applied Physics, 2020, 127, 105103.	1.1	6
60	Effect of composition and nanostructure on the mechanical properties and thermal stability of Zr _{100-x} Cu _x thin film metallic glasses. Materials and Design, 2022, 219, 110752.	3.3	6
61	TEM study of the indentation behaviour of thin Au film on GaAs. Thin Solid Films, 2004, 460, 150-155.	0.8	5
62	X-ray strain analysis of {111} fiber-textured thin films independent of grain-interaction models. Journal of Applied Crystallography, 2011, 44, 409-413.	1.9	5
63	Annealing effect on elastic, magnetic and magnetoelastic properties of CoFeB thin films on polymer substrate. Journal Physics D: Applied Physics, 2017, 50, 455002.	1.3	5
64	In situ study of spin waves in thin films deposited onto compliant substrates submitted to external stresses. Journal Physics D: Applied Physics, 2011, 44, 155002.	1.3	4
65	Magnetic domain wall motion study under an electric field in a $\text{SiO}_2/\text{Co}/\text{SiO}_2$ structure. Journal of Applied Physics, 2011, 110, 07D502.	1.0	4
66	X-ray diffraction and stress relaxations to study thermal and stress-assisted annealings in nanocrystalline gold thin films. Acta Materialia, 2019, 173, 87-95.	3.8	4
67	Effects of Heterogeneous Strain on the Magnetization Processes in Magnetic Nanomembranes. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100149.	1.2	4
68	Strain ratio and thickness effects on plasticity and crack patterns of Nickel thin films. Scripta Materialia, 2022, 213, 114638.	2.6	4
69	Mechanical Properties of Thin Films and Nanometric Multilayers Using Tensile Testing and Synchrotron X-Ray Diffraction. Plasma Processes and Polymers, 2007, 4, 311-317.	1.6	3
70	X-ray elastic response of metallic thin film supported by polyimide substrates. Journal of Strain Analysis for Engineering Design, 2011, 46, 639-649.	1.0	3
71	Non-equibiaxial deformation of W/Cu nanocomposite thin films on stretchable substrate: Effect of loading path. Thin Solid Films, 2013, 549, 239-244.	0.8	3
72	Local Stiffness Effect on Ferromagnetic Response of Nanostructure Arrays in Stretchable Systems (Phys. Status Solidi RRL 2/2019). Physica Status Solidi - Rapid Research Letters, 2019, 13, 1970015.	1.2	3

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73	Lattice Strain Evolutions in Ni-W Alloys during a Tensile Test Combined with Synchrotron X-ray Diffraction. <i>Materials</i> , 2020, 13, 4027.	1.3	3
74	90° ferroelectric domain switching effect on interfacial strain mediated magnetoelectric coupling. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 145001.	1.3	3
75	Mechanical properties of Li ₂ MoO ₄ single crystals. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	3
76	Strains, Stresses and Elastic Properties in Polycrystalline Metallic Thin Films: In Situ Deformation Combined with X-Ray Diffraction and Simulation Experiments. <i>Materials Science Forum</i> , 2006, 524-525, 735-740.	0.3	2
77	Study of texture effect on elastic properties of Au thin films by x-ray diffraction and Brillouin light scattering. <i>Journal of Physics: Conference Series</i> , 2007, 92, 012170.	0.3	2
78	Time resolved synchrotron x-ray strain measurements of gold thin film on flexible substrate. <i>Thin Solid Films</i> , 2011, 520, 1603-1607.	0.8	2
79	X-ray elastic strain analysis of compressed Au thin film on polymer substrate. <i>Surface and Coatings Technology</i> , 2013, 215, 322-326.	2.2	2
80	Nano-structuration effect on the mechanical behavior of gold thin films studied by 2D synchrotron x-ray diffraction. <i>Surface and Coatings Technology</i> , 2016, 308, 418-423.	2.2	2
81	Film thickness and architecture effects in biaxially strained polymer supported Al/Mo bilayers. <i>Materials Today Communications</i> , 2022, 31, 103455.	0.9	2
82	Evolution under annealing and nitrogen implantation of the mechanical properties of amorphous carbon films. <i>Thin Solid Films</i> , 2005, 482, 318-323.	0.8	1
83	Elastic behavior of fibre-textured gold films by combining synchrotron X-ray diffraction and in-situ tensile testing. <i>Materials Research Society Symposia Proceedings</i> , 2005, 875, 1.	0.1	1
84	Comment on "Ultralow magnetostrictive flexible ferromagnetic nanowires" by G. Muscas, P. E. Jönsson, I. G. Serrano, Å. Vallin, and M. V. Kamalakar, <i>Nanoscale</i> , 2021, 13, 6043-6052. <i>Nanoscale</i> , 2022, 14, 1014-1016.	2.8	1
85	Development of a Biaxial Tensile Module at Synchrotron Beamline for the Study of Mechanical Properties of Nanostructured Films. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1224, 1.	0.1	0
86	Mechanical characterization of nanostructured thin films at different scales. <i>EPJ Web of Conferences</i> , 2010, 6, 26003.	0.1	0
87	Study of spin waves in magnetic thin films submitted to external mechanical stresses.. <i>EPJ Web of Conferences</i> , 2010, 6, 26005.	0.1	0
88	X-ray strain analysis in thin films enhanced by 2D detection. <i>EPJ Web of Conferences</i> , 2010, 6, 26008.	0.1	0
89	Measurement of applied strains in thin films deposited onto polymer by synchrotron X-ray diffraction. <i>Procedia Engineering</i> , 2011, 10, 2701-2706.	1.2	0
90	Time-Resolved X-Ray Stress Analysis in Multilayered Thin Films during Continuous Loading: Use of 2D Remote Detection. <i>Advanced Materials Research</i> , 0, 996, 878-883.	0.3	0

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91	Peculiar effective elastic anisotropy of nanometric multilayers studied by surface Brillouin scattering. Superlattices and Microstructures, 2015, 88, 551-560.	1.4	0
92	Machine biaxiale sur la ligne de lumière Diffabs pour l'étude des propriétés mécaniques de films minces déposés sur substrats polymères. Materiaux Et Techniques, 2015, 103, 610.	0.3	0