Damien Faurie

List of Publications by Year
in descending order

92 papers	1,184 citations	394421 19 h-index	477307 29 g-index
92 all docs	92 docs citations	92 times ranked	1010 citing authors

#	Article	IF	Citations
1	Comment on â€œUltralow magnetostrictive flexible ferromagnetic nanowiresâ€•by G. Muscas, P. E. JÃ¶nsson, I. G. Serrano, Ã–. Vallin, and M. V. Kamalakar, Nanoscale, 2021, 13, 6043â€“6052. Nanoscale, 2022, 14, 1014-1016.	5.6	1
2	Strain ratio and thickness effects on plasticity and crack patterns of Nickel thin films. Scripta Materialia, 2022, 213, 114638.	5.2	4
3	Film thickness and architecture effects in biaxially strained polymer supported Al/Mo bilayers. Materials Today Communications, 2022, 31, 103455.	1.9	2
4	Mechanical properties of Li2MoO4 single crystals. Journal of Applied Physics, 2022, 131, .	2.5	3
5	Effect of composition and nanostructure on the mechanical properties and thermal stability of Zr100-xCux thin film metallic glasses. Materials and Design, 2022, 219, 110752.	7.0	6
6	Role of layer order on the equi-biaxial behavior of Al/Mo bilayers. Scripta Materialia, 2021, 194, 113656.	5.2	14
7	A review on nanostructured thin films on flexible substrates: links between strains and magnetic properties. Journal of Physics Condensed Matter, 2021, 33, 233002.	1.8	12
8	Effects of Heterogeneous Strain on the Magnetization Processes in Magnetic Nanomembranes. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100149.	2.4	4
9	Differentiated Strain-Control of Localized Magnetic Modes in Antidot Arrays. ACS Applied Materials & Interfaces, 2021, 13, 29906-29915.	8.0	7
10	Prospects toward flexible magnonic systems. Journal of Applied Physics, 2021, 130, .	2.5	8
11	Mechanical properties of CoCrCuFeNi multi-principal element alloy thin films on Kapton substrates. Surface and Coatings Technology, 2020, 402, 126474.	4.8	15
12	Lattice Strain Evolutions in Ni-W Alloys during a Tensile Test Combined with Synchrotron X-ray Diffraction. Materials, 2020, 13, 4027.	2.9	3
13	Strain ratio effects in mechanical properties of supported thin films. Journal of Applied Physics, 2020, 127, 105103.	2.5	6
14	90Â° ferroelectric domain switching effect on interfacial strain mediated magnetoelectric coupling. Journal Physics D: Applied Physics, 2020, 53, 145001.	2.8	3
15	Micromagnetic modeling of nanostructures subject to heterogeneous strain fields. Journal Physics D: Applied Physics, 2019, 52, 355004.	2.8	8
16	X-ray diffraction and stress relaxations to study thermal and stress-assisted annealings in nanocrystalline gold thin films. Acta Materialia, 2019, 173, 87-95.	7.9	4
17	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.	2.4	3
18	Fracture behavior of Ni-W alloy probed by in situ synchrotron X-ray diffraction. Materials Letters, 2019, 239, 116-119.	2.6	8

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19	Local Stiffness Effect on Ferromagnetic Response of Nanostructure Arrays in Stretchable Systems. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800509.	2.4	10
20	In situ x-ray diffraction analysis of 2D crack patterning in thin films. Acta Materialia, 2019, 165, 177-182.	7.9	21
21	Multicracking and Magnetic Behavior of Ni₈₀Fe₂₀ Nanowires Deposited onto a Polymer Substrate. Nano Letters, 2018, 18, 3199-3202.	9.1	19
22	Origin of relationship between ferromagnetic response and damage in stretched systems. Scientific Reports, 2018, 8, 13695.	3.3	16
23	Setup for high-temperature surface Brillouin light scattering: Application to opaque thin films and coatings. Review of Scientific Instruments, 2017, 88, 023903.	1.3	9
24	Fragmentation and adhesion properties of CoFeB thin films on polyimide substrate. Applied Physics Letters, 2017, 110, .	3.3	12
25	Relaxation mechanisms in a gold thin film on a compliant substrate as revealed by X-ray diffraction. Applied Physics Letters, 2017, 110, .	3.3	10
26	Annealing effect on elastic, magnetic and magnetoelastic properties of CoFeB thin films on polymer substrate. Journal Physics D: Applied Physics, 2017, 50, 455002.	2.8	5
27	Large area periodic ferromagnetic nanowires deposited onto a polymer substrate. Applied Physics Letters, 2017, 111, .	3.3	11
28	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, .	2.5	12
29	Unambiguous magnetoelastic effect on residual anisotropy in thin films deposited on flexible substrates. Europhysics Letters, 2016, 114, 17003.	2.0	14
30	Nano-structuration effect on the mechanical behavior of gold thin films studied by 2D synchrotron x-ray diffraction. Surface and Coatings Technology, 2016, 308, 418-423.	4.8	2
31	Annealing temperature and thickness dependencies of structural and magnetic properties ofCo2FeAlthin films. Physical Review B, 2016, 94, .	3.2	11
32	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.	2.8	15
33	Data on the impact of increasing the W amount on the mass density and compressive properties of Niâ€“W alloys processed by spark plasma sintering. Data in Brief, 2016, 7, 1405-1408.	1.0	9
34	Spectroscopic investigation of elastic and magnetoelastic properties of CoFeB thin films. Journal Physics D: Applied Physics, 2016, 49, 145003.	2.8	18
35	Bulk Niâ€“W alloys with a composite-like microstructure processed by spark plasma sintering: Microstructure and mechanical properties. Materials and Design, 2016, 89, 1181-1190.	7.0	25
36	Peculiar effective elastic anisotropy of nanometric multilayers studied by surface Brillouin scattering. Superlattices and Microstructures, 2015, 88, 551-560.	3.1	0

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37	Laue-DIC: a new method for improved stress field measurements at the micrometer scale. Journal of Synchrotron Radiation, 2015, 22, 980-994.	2.4	23
38	Effective 90-degree magnetization rotation in Co2FeAl thin film/piezoelectric system probed by microstripline ferromagnetic resonance. Applied Physics Letters, 2015, 107, .	3.3	8
39	Magnetic domain-wall motion study under an electric field in a <mml:math altimg="si0007.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd"	2.3	4
40	Machine biaxiale sur la ligne de lumiÃ¨re Diffabs pour lâ€™Ã©tude des propriÃ©tÃ©s mÃ©caniques de films minces dÃ©posÃ©s sur substrats polymÃ¨res. Materiaux Et Techniques, 2015, 103, 610.	0.9	0
41	Comparative study of the mechanical properties of nanostructured thin films on stretchable substrates. Journal of Applied Physics, 2014, 116, .	2.5	18
42	Bending strain-tunable magnetic anisotropy in Co2FeAl Heusler thin film on KaptonÂ®. Applied Physics Letters, 2014, 105, 062409.	3.3	41
43	Micro-strip ferromagnetic resonance study of strain-induced anisotropy in amorphous FeCuNbSiB film on flexible substrate. Journal of Applied Physics, 2014, 116, 123903.	2.5	15
44	Optimization of indirect magnetoelectric effect in thin-film/substrate/piezoelectric-actuator heterostructure using polymer substrate. Applied Physics Letters, 2014, 105, 052411.	3.3	13
45	Combining ferromagnetic resonator and digital image correlation to study the strain induced resonance tunability in magnetoelectric heterostructures. Review of Scientific Instruments, 2014, 85, 103905.	1.3	17
46	Mastering the biaxial stress state in nanometric thin films on flexible substrates. Applied Surface Science, 2014, 306, 70-74.	6.1	8
47	In situmonitoring 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.	4.5	12
48	Voltage-induced strain control of the magnetic anisotropy in a Ni thin film on flexible substrate. Journal of Applied Physics, 2013, 114, .	2.5	40
49	X-ray elastic strain analysis of compressed Au thin film on polymer substrate. Surface and Coatings Technology, 2013, 215, 322-326.	4.8	2
50	Structural and elastic properties of ternary metal nitrides TixTa1âˆ’xN alloys: First-principles calculations versus experiments. Surface and Coatings Technology, 2013, 215, 199-208.	4.8	39
51	Non-equibiaxial deformation of W/Cu nanocomposite thin films on stretchable substrate: Effect of loading path. Thin Solid Films, 2013, 549, 239-244.	1.8	3
52	Sin2 Ïˆ analysis in thin films using 2D detectors: Non-linearity due to set-up, stress state and microstructure. Thin Solid Films, 2013, 530, 25-29.	1.8	11
53	Yield surface of polycrystalline thin films as revealed by non-equibiaxial loadings at small deformation. Acta Materialia, 2013, 61, 5067-5077.	7.9	27
54	Deformation modes of nanostructured thin film under controlled biaxial deformation. Thin Solid Films, 2013, 530, 30-34.	1.8	20

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55	Phase transition signature on elastic constants in Al1-xCrxNy ternary alloys thin films. Applied Physics Letters, 2013, 103, 041601.	3.3	7
56	Structural and elastic properties of single-crystal and polycrystalline Ti1â^'xZrxN alloys: A computational study. Journal of Alloys and Compounds, 2012, 536, S138-S142.	5.5	13
57	Static and dynamic magnetic properties of epitaxial Fe1.7Ge thin films grown on Ge(111). Journal of Applied Physics, 2012, 111, 07D502.	2.5	6
58	Static and dynamic study of magnetic properties in FeNi film on flexible substrate, effect of applied stresses. European Physical Journal B, 2012, 85, 1.	1.5	12
59	Combining Laue Microdiffraction and Digital Image Correlation for Improved Measurements of the Elastic Strain Field with Micrometer Spatial Resolution. Procedia IUTAM, 2012, 4, 133-143.	1.2	11
60	In situ tailoring of magnetization configuration in NiFe film deposited onto flexible substrate. Journal of Applied Physics, 2012, 111, 07A926.	2.5	10
61	Synchrotron X-ray diffraction experiments with a prototype hybrid pixel detector. Journal of Applied Crystallography, 2012, 45, 38-47.	4.5	34
62	Structural and magnetic properties of Co₂MnSi thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1328-1333.	1.8	7
63	Deposition of ultra-thin gold film on in situ loaded polymeric substrate for compression tests. Materials Letters, 2012, 73, 99-102.	2.6	8
64	X-ray elastic response of metallic thin film supported by polyimide substrates. Journal of Strain Analysis for Engineering Design, 2011, 46, 639-649.	1.8	3
65	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.	2.8	4
66	Time resolved synchrotron x-ray strain measurements of gold thin film on flexible substrate. Thin Solid Films, 2011, 520, 1603-1607.	1.8	2
67	X-ray strain analysis of {111} fiber-textured thin films independent of grain-interaction models. Journal of Applied Crystallography, 2011, 44, 409-413.	4.5	5
68	Combined synchrotron X-ray and image-correlation analyses of biaxially deformed W/Cu nanocomposite thin films on Kapton. Journal of Applied Crystallography, 2011, 44, 1071-1079.	4.5	38
69	Measurement of applied strains in thin films deposited onto polymer by synchrotron X-ray diffraction. Procedia Engineering, 2011, 10, 2701-2706.	1.2	0
70	Controlled biaxial deformation of nanostructured W/Cu thin films studied by X-ray diffraction. Surface and Coatings Technology, 2010, 205, 1420-1425.	4.8	8
71	Elastic anisotropy of polycrystalline Au films: Modeling and respective contributions of X-ray diffraction, nanoindentation and Brillouin light scattering. Acta Materialia, 2010, 58, 4998-5008.	7.9	36
72	Mechanical characterization of nanostructured thin films at different scales. EPJ Web of Conferences, 2010, 6, 26003.	0.3	0

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73	Study of spin waves in magnetic thin films submitted to external mechanical stresses.. EPJ Web of Conferences, 2010, 6, 26005.	0.3	0
74	X-ray strain analysis in thin films enhanced by 2D detection. EPJ Web of Conferences, 2010, 6, 26008.	0.3	0
75	Structural, static and dynamic magnetic properties of Co2MnGe thin films on a sapphire a-plane substrate. Journal of Applied Physics, 2010, 108, 063926.	2.5	14
76	Development of a synchrotron biaxial tensile device for in situ characterization of thin films mechanical response. Review of Scientific Instruments, 2010, 81, 103903.	1.3	45
77	Elastic-strain distribution in metallic film-polymer substrate composites. Applied Physics Letters, 2010, 96, 041905.	3.3	31
78	Development of a Biaxial Tensile Module at Synchrotron Beamline for the Study of Mechanical Properties of Nanostructured Films. Materials Research Society Symposia Proceedings, 2009, 1224, 1.	0.1	0
79	In situdiffraction strain analysis of elastically deformed polycrystalline thin films, and micromechanical interpretation. Journal of Applied Crystallography, 2009, 42, 1073-1084.	4.5	41
80	Study of texture effect on elastic properties of Au thin films by x-ray diffraction and Brillouin light scattering. Journal of Physics: Conference Series, 2007, 92, 012170.	0.4	2
81	Mechanical Properties of Thin Films and Nanometric Multilayers Using Tensile Testing and Synchrotron X-Ray Diffraction. Plasma Processes and Polymers, 2007, 4, 311-317.	3.0	3
82	Study of texture effect on elastic properties of Au thin films by X-ray diffraction and in situ tensile testing. Acta Materialia, 2006, 54, 4503-4513.	7.9	67
83	Elastic properties of polycrystalline gold thin films: Simulation and X-ray diffraction experiments. Surface and Coatings Technology, 2006, 201, 4300-4304.	4.8	8
84	Strains, Stresses and Elastic Properties in Polycrystalline Metallic Thin Films: In Situ Deformation Combined with X-Ray Diffraction and Simulation Experiments. Materials Science Forum, 2006, 524-525, 735-740.	0.3	2
85	Elastic behavior of polycrystalline thin films inferred from in situ micromechanical testing and modeling. Applied Physics Letters, 2006, 89, 061911.	3.3	21
86	Evolution under annealing and nitrogen implantation of the mechanical properties of amorphous carbon films. Thin Solid Films, 2005, 482, 318-323.	1.8	1
87	Determination of elastic constants of a fiber-textured gold film by combining synchrotron x-ray diffraction andin situtensile testing. Journal of Applied Physics, 2005, 98, 093511.	2.5	28
88	Elastic behavior of fibre-textured gold films by combining synchrotron X-ray diffraction and in-situ tensile testing. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	1
89	TEM study of the indentation behaviour of thin Au film on GaAs. Thin Solid Films, 2004, 460, 150-155.	1.8	5
90	Measurement of thin film elastic constants by X-ray diffraction. Thin Solid Films, 2004, 469-470, 201-205.	1.8	28

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91	Measurement of the elastic constants of textured anisotropic thin films from x-ray diffraction data. Applied Physics Letters, 2003, 83, 473-475.	3.3	52
92	Time-Resolved X-Ray Stress Analysis in Multilayered Thin Films during Continuous Loading: Use of 2D Remote Detection. Advanced Materials Research, 0, 996, 878-883.	0.3	0