

Félix E Fernández

List of Publications by Year in descending order

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82
papers

1,655
citations

304743

22
h-index

302126

39
g-index

88
all docs

88
docs citations

88
times ranked

1824
citing authors

#	ARTICLE	IF	CITATIONS
1	Light-induced ultrafast phase transitions in VO ₂ thin film. Applied Surface Science, 2006, 252, 5512-5515.	6.1	105
2	Bending in VO ₂ -coated microcantilevers suitable for thermally activated actuators. Journal of Applied Physics, 2010, 107, .	2.5	96
3	Optoelectronic and all-optical multiple memory states in vanadium dioxide. Journal of Applied Physics, 2010, 108, .	2.5	91
4	Insulator-to-metal phase transition and recovery processes in V_2O_2 thin films after femtosecond laser excitation. Physical Review B, 2007, 76, .	3.2	89
5	Energy transfer from the host to Eu ³⁺ in ZnO. Optical Materials, 2003, 23, 27-32.	3.6	85
6	Generation of submicron monodisperse aerosols in electrosprays. Journal of Aerosol Science, 1990, 21, S673-S676.	3.8	84
7	Maximizing the performance of photothermal actuators by combining smart materials with supplementary advantages. Science Advances, 2017, 3, e1602697.	10.3	82
8	Effects of compositional phase transitions on luminescence of Sr ^{1-x} CaxTiO ₃ :Pr ³⁺ . Solid State Communications, 2003, 126, 153-157.	1.9	77
9	Increasing Efficiency, Speed, and Responsivity of Vanadium Dioxide Based Photothermally Driven Actuators Using Single-Wall Carbon Nanotube Thin-Films. ACS Nano, 2015, 9, 4371-4378.	14.6	69
10	Photoinduced insulator-to-metal phase transition in VO ₂ crystalline films and model of dielectric susceptibility. Physical Review B, 2007, 75, .	3.2	64
11	Phase transition behavior in microcantilevers coated with M1-phase VO ₂ and M2-phase VO ₂ :Cr thin films. Journal of Applied Physics, 2012, 111, .	2.5	63
12	Critical behavior and size effects in light-induced transition of nanostructured VO ₂ . Physical Review B, 2010, 82, .	3.2	44
13	Young's modulus of VO ₂ thin films as a function of temperature including insulator-to-metal transition regime. Applied Physics Letters, 2008, 92, .	3.3	43
14	Optical nonlinearity and structural dynamics of VO ₂ films. Journal of Applied Physics, 2009, 105, .	2.5	36
15	Dynamics of photothermally driven VO ₂ -coated microcantilevers. Journal of Applied Physics, 2011, 110, .	2.5	34
16	Photoluminescence of Ce ³⁺ , Tb ³⁺ :Y ₂ O ₃ nanoclusters embedded in SiO ₂ sol-gel glasses. Materials Science and Engineering C, 2001, 16, 55-58.	7.3	32
17	The model of ultrafast light-induced insulator-metal phase transition in VO ₂ . Solid State Communications, 2006, 137, 615-620.	1.9	30
18	Supersaturation-Driven Optical Tuning of Ag Nanocomposite Glasses for Photonics: An In Situ Optical Microspectroscopy Study. Plasmonics, 2011, 6, 399-405.	3.4	30

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19	Photothermal actuation of VO_2 :Cr-coated microcantilevers in air and aqueous media. Smart Materials and Structures, 2012, 21, 105009.	3.5	29
20	Molecular-beam epitaxy growth and nitrogen doping of ZnSe $_{1-x}$ Te $_x$ alloys grown on InP substrates. Applied Physics Letters, 1999, 75, 2608-2610.	3.3	28
21	Excited state dynamics and semiconductor-to-metallic phase transition of VO_2 thin film. Journal of Luminescence, 2004, 108, 233-238.	3.1	26
22	The model of metal-insulator phase transition in vanadium oxide. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 343, 446-453.	2.1	24
23	Large non-thermal contribution to picosecond strain pulse generation using the photo-induced phase transition in VO_2 . Nature Communications, 2020, 11, 1690.	12.8	23
24	Novel pulsed-laser-deposition VO_2 thin films for ultrafast applications. Journal of Electronic Materials, 2005, 34, 491-496.	2.2	19
25	Study of the resonant frequencies of silicon microcantilevers coated with vanadium dioxide films during the insulator-to-metal transition. Journal of Applied Physics, 2010, 107, 053528.	2.5	18
26	A micro-mechanical resonator with programmable frequency capability. Smart Materials and Structures, 2012, 21, 035007.	3.5	16
27	Ultrafast light scattering imaging of multi-scale transition dynamics in vanadium dioxide. Journal of Applied Physics, 2013, 114, .	2.5	16
28	Photoinduced insulator-to-metal transition and surface statistics of VO_2 monitored by elastic light scattering. Applied Optics, 2015, 54, 2141.	1.8	16
29	Ultrafast Excited-State Dynamics of VO_2 as a Signature of a Photoinduced Insulator-Metal Phase Transition. Physical Review Letters, 2017, 119, 057602.	7.8	15
30	Metal-insulator transition and nonlinear optical response of sputter-deposited VO_2 thin films. Journal of Applied Physics, 2017, 121, .	2.5	15
31	Photoinduced surface plasmon switching at VO_2/Au interface. Optics Express, 2018, 26, 13773.	3.4	15
32	Host excitation-induced red emission from Pr^{3+} in strontium barium niobate thin film. Journal of Luminescence, 2004, 108, 37-41.	3.1	14
33	Young's modulus of pulsed-laser deposited VO_2 thin films. Journal of Applied Physics, 2009, 105, .	2.5	14
34	Ultrafast structural dynamics of VO_2 . Physical Review B, 2017, 96, .	3.4	14
35	A multiple-state micro-mechanical programmable memory. Microelectronic Engineering, 2011, 88, 3231-3234.	2.4	13
36	Semiconductor-insulator transition in VO_2 (B) thin films grown by pulsed laser deposition. Journal of Applied Physics, 2015, 118, .	2.5	13

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37	Characterization of multilayers for extended ultraviolet optics. Applied Physics Letters, 1987, 51, 880-882.	3.3	12
38	Insulator-to-metal phase transformation of VO ₂ films upon femtosecond laser excitation. Journal of Electronic Materials, 2006, 35, 1866-1872.	2.2	12
39	Toward reproducible metal-insulator transition characteristics in V ₂ O ₃ thin films sputter-deposited on glass. Journal of Applied Physics, 2018, 124, .	2.5	12
40	Ultrafast Insulator-Metal Transition in VO ₂ Nanostructures Assisted by Picosecond Strain Pulses. Physical Review Applied, 2019, 11, .	3.8	12
41	Nitride thin films grown by pulsed laser deposition assisted by atomic nitrogen beam. Thin Solid Films, 2000, 377-378, 781-787.	1.8	10
42	Light scattering by epitaxial VO ₂ films near the metal-insulator transition point. Journal of Applied Physics, 2015, 117, 184304.	2.5	10
43	Semiconductor-to-metallic phase transition of VO ₂ by laser excitation. Journal of Electronic Materials, 2004, 33, 1171-1175.	2.2	9
44	Gamma-ray spectral analysis with the COSPAJ continuum fitting routine. Applied Radiation and Isotopes, 1998, 49, 1235-1240.	1.5	8
45	Optical property of Eu in strontium barium niobate optical thin film grown by pulsed laser deposition. Thin Solid Films, 2003, 424, 61-65.	1.8	8
46	Frequency Tuning of VO_2 -Coated Buckled Microbridges. Journal of Microelectromechanical Systems, 2011, 20, 558-560.	2.5	8
47	Ultrafast diffraction conoscopy of the structural phase transition in VO ₂ : Evidence of two lattice distortions. Physical Review B, 2017, 95, .	3.2	8
48	Structure, Morphology, and Properties of Strontium Barium Niobate Thin Films Grown by Pulsed Laser Deposition. Integrated Ferroelectrics, 2002, 42, 219-233.	0.7	7
49	Super-resolution in diffractive imaging from hemispherical elastic light scattering data. Optics Letters, 2017, 42, 2263.	3.3	6
50	Sputter Deposited Multilayer V-UV Mirrors. Proceedings of SPIE, 1985, , .	0.8	5
51	Up-converted energy transfer from Er ³⁺ to Cr ³⁺ in LiNbO ₃ single crystal fibers. Journal of Luminescence, 1995, 66-67, 228-231.	3.1	5
52	The model of ultrafast light-induced insulator-metal phase transition in vanadium oxide. Journal of Physics: Conference Series, 2005, 21, 44-49.	0.4	5
53	Charge transfer model of metal-insulator phase transition and ultrafast optical response in VO ₂ . Optical Materials, 2007, 29, 1385-1389.	3.6	4
54	Size-dependent phase transition of VO ₂ nanostructures induced by light excitation. Physics Procedia, 2011, 13, 18-23.	1.2	4

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55	Ultrafast optical dynamics in VO ₂ , 2006, , .		3
56	Resonant Frequency Behavior of Silicon Cantilevers Coated With Nanostructured and Microcrystalline VO ₂ Films. IEEE Nanotechnology Magazine, 2010, 9, 330-334.	2.0	3
57	Raman spectra and elastic light scattering dynamics of V ₃ O ₅ across insulator-metal transition. Journal of Applied Physics, 2021, 129, 025111.	2.5	3
58	Properties of multilayers for soft X-ray optics. Superlattices and Microstructures, 1988, 4, 51-53.	3.1	2
59	Enhancement of thickness uniformity of thin films grown by pulsed laser deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 421-427.	2.1	2
60	Azimuth Dependence of Light-Induced Ultrafast Insulator-to-Metal Phase Transition in VO ₂ Thin Film. ECS Transactions, 2006, 3, 37-49.	0.5	2
61	Nanostructured VO ₂ film coatings for tunable MEMS resonators. , 2010, , .		2
62	Time-resolved light scattering by photoexcited V ₂ O ₃ . MRS Advances, 2017, 2, 1231-1236.	0.9	2
63	Photoelasticity of VO_2 nanolayers in insulating and metallic phases studied by picosecond ultrasonics. Physical Review Materials, 2020, 4, .	2.4	2
64	Multilayers for soft X-ray optics. IEEE Journal of Quantum Electronics, 1988, 24, 1758-1762.	1.9	1
65	Tantalum Oxide and Niobium Oxide thin Films Grown by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 1995, 397, 205.	0.1	1
66	Excitation dynamics of cerium in niobate crystals. Journal of Alloys and Compounds, 1997, 250, 360-363.	5.5	1
67	Microwave Properties of Strontium Barium Niobate Thin Films Grown by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2001, 688, 1.	0.1	1
68	Photoinduced Solid Phase Transformation in Vanadium Dioxide Films. Materials Research Society Symposia Proceedings, 2005, 905, 1.	0.1	1
69	The effect of growth conditions and N ₂ /O ₂ ambient on LO-phonon replicas during epitaxial growth of ZnO on c-sapphire. Journal of Materials Science, 2010, 45, 6009-6017.	3.7	1
70	Photoinduced optical dynamics of phase-change vanadium oxides. , 2017, , .		1
71	Photonuclear sum rules from continuum calculations and their dependence on the residual interaction. Lettere Al Nuovo Cimento Rivista Internazionale Della SocietĂ Italiana Di Fisica, 1979, 26, 388-392.	0.4	0
72	A beamline for layered synthetic microstructure studies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1988, 266, 351-355.	1.6	0

#	ARTICLE	IF	CITATIONS
73	<title>Transient grating in $\text{KNbO}_3/\text{KTaO}_3$ superlattice</title>. , 1998, 3425, 182.		0
74	Nonlinear Optical Dynamics During Phase Transition in Vanadium Dioxide. Materials Research Society Symposia Proceedings, 2005, 888, 1.	0.1	0
75	Electrical properties of VO ₂ thin films grown by PLD. , 2008, , .		0
76	Light-Induced Functional VO ₂ Films. Advanced Materials Research, 0, 47-50, 532-535.	0.3	0
77	Dynamics of VO ₂ /Cr coated microcantilevers in aqueous media. , 2012, , .		0
78	Ultrafast Light Scattering by Transient Inhomogeneities in Vanadium Dioxide. , 2016, , .		0
79	Effects of Strain in Mesoscale VO ₂ Grains on Light-Induced Insulator-Metal Transition. , 2016, , .		0
80	Parallel GPU computing in light scattering metrology of ultrafast surface dynamics. , 2018, , .		0
81	Photoinduced surface dynamics of V ₃ O ₅ : visualization of autocorrelation function from light scattering data. , 2019, , .		0
82	Photoinduced dynamics of V ₄ O ₇ . , 2021, , .		0