

Enric Garc a-Caurel

List of Publications by Year in descending order

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104
papers

2,037
citations

236925

25
h-index

276875

41
g-index

105
all docs

105
docs citations

105
times ranked

1749
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of surface charging memory effect in ionization wave dynamics. Scientific Reports, 2022, 12, 1181.	3.3	14
2	Amorphization of a proposed sorbent of strontium, brushite, $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$, studied by X-ray diffraction and Raman spectroscopy. Journal of Nuclear Materials, 2021, 545, 152751.	2.7	4
3	Polarimetric data-based model for tissue recognition. Biomedical Optics Express, 2021, 12, 4852.	2.9	15
4	Unraveling the physical information of depolarizers. Optics Express, 2021, 29, 38811.	3.4	6
5	Nonideal optical response of liquid crystal variable retarders and its impact on their performance as polarization modulators. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, .	1.2	7
6	In-situ monitoring of an organic sample with electric field determination during cold plasma jet exposure. Scientific Reports, 2020, 10, 13580.	3.3	13
7	Depolarization metric spaces for biological tissues classification. Journal of Biophotonics, 2020, 13, e202000083.	2.3	14
8	A Comparison between Nanogratings-Based and Stress-Engineered Waveplates Written by Femtosecond Laser in Silica. Micromachines, 2020, 11, 131.	2.9	16
9	Revealing Plasma-Surface Interaction at Atmospheric Pressure: Imaging of Electric Field and Temperature inside the Targeted Material. Scientific Reports, 2020, 10, 2712.	3.3	16
10	Polarizer calibration method for Mueller matrix polarimeters. Applied Optics, 2020, 59, 10389.	1.8	10
11	Experimental and numerical investigation of the transient charging of a dielectric surface exposed to a plasma jet. Plasma Sources Science and Technology, 2019, 28, 095016.	3.1	38
12	Depolarizing metrics for plant samples imaging. PLoS ONE, 2019, 14, e0213909.	2.5	27
13	Digital histology with Mueller microscopy: how to mitigate an impact of tissue cut thickness fluctuations. Journal of Biomedical Optics, 2019, 24, 1.	2.6	35
14	Experimental studies of the transmission of light through low-coverage regular or random arrays of silica micropillars supported by a glass substrate. Applied Optics, 2019, 58, 9267.	1.8	3
15	Stern-Gerlach experiment with light: separating photons by spin with the method of A Fresnel. Optics Express, 2019, 27, 4758.	3.4	14
16	Spectral dependence of femtosecond laser induced circular optical properties in silica. OSA Continuum, 2019, 2, 1233.	1.8	8
17	The Fresnel triprism and the circular polarization of light. Photoniques, 2019, , 44-45.	0.1	0
18	Mueller microscopy of full thickness skin models combined with image segmentation. , 2019, , .		1

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19	Imaging axial and radial electric field components in dielectric targets under plasma exposure. Journal Physics D: Applied Physics, 2018, 51, 115203.	2.8	13
20	Conservation of the piezoelectric response of PVDF films under irradiation. Radiation Physics and Chemistry, 2018, 142, 54-59.	2.8	19
21	Polarimetric imaging of biological tissues based on the indices of polarimetric purity. Journal of Biophotonics, 2018, 11, e201700189.	2.3	28
22	Electric field and temperature in a target induced by a plasma jet imaged using Mueller polarimetry. Journal Physics D: Applied Physics, 2018, 51, 025204.	2.8	14
23	Circularly Polarized Images with Contrast Reversal Using Pseudochiral Metasurfaces. ACS Photonics, 2018, 5, 4068-4073.	6.6	12
24	Localized Plasmonic Resonances of Prolate Nanoparticles in a Symmetric Environment: Experimental Verification of the Accuracy of Numerical and Analytical Models. Physical Review Applied, 2018, 9, .	3.8	14
25	Investigation of a plasma target interaction through electric field characterization examining surface and volume charge contributions: modeling and experiment. Plasma Sources Science and Technology, 2018, 27, 094002.	3.1	48
26	Mueller microscopy of anisotropic scattering media: theory and experiments. , 2018, , .		11
27	Multimodal imaging Mueller polarimetric microscope on geometrical analysis of spherical microparticles. , 2018, , .		0
28	Indices of polarimetric purity for biological tissues inspection. , 2018, , .		3
29	Multimodal imaging Mueller polarimetric microscope to study polarimetric properties of spheroidal microparticles. , 2018, , .		0
30	Indices of polarimetric purity to enhance the image quality in biophotonics applications. , 2018, , .		1
31	Experimental study of thickness dependence of polarization and depolarization properties of anisotropic turbid media using Mueller matrix polarimetry and differential decomposition. Applied Surface Science, 2017, 421, 870-877.	6.1	24
32	Polarization gating based on Mueller matrices. Journal of Biomedical Optics, 2017, 22, 1.	2.6	20
33	Optical biopsy of tissue with Mueller polarimetry: theory and experiments (Conference Presentation). , 2017, , .		1
34	IR-Mueller matrix ellipsometry of self-assembled nanopatterned gold grid polarizer. Applied Surface Science, 2017, 421, 728-737.	6.1	8
35	Charge transfer to a dielectric target by guided ionization waves using electric field measurements. Plasma Sources Science and Technology, 2017, 26, 035002.	3.1	37
36	Experimental validation of the partial coherence model in spectroscopic ellipsometry and Mueller matrix polarimetry. Applied Surface Science, 2017, 421, 656-662.	6.1	4

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37	Study of femtosecond laser induced circular optical properties by Mueller matrix spectropolarimetry. , 2017, , .		0
38	On the equivalence between Young's double-slit and crystal double-refraction interference experiments. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1309.	1.5	5
39	Experimental evidence for partial spatial coherence in imaging Mueller polarimetry. Optics Letters, 2017, 42, 4740.	3.3	1
40	Mueller matrix polarimetry on a Young's double-slit experiment analog. Optics Letters, 2017, 42, 3900.	3.3	9
41	Synthesis and characterization of depolarizing samples based on the indices of polarimetric purity. Optics Letters, 2017, 42, 4155.	3.3	29
42	Study of femtosecond laser-induced circular optical properties in silica by Mueller matrix spectropolarimetry. Optics Letters, 2017, 42, 4103.	3.3	6
43	Comparative study of SiO ₂ , Si ₃ N ₄ and TiO ₂ thin films as passivation layers for quantum cascade lasers. Optics Express, 2016, 24, 24032.	3.4	11
44	A TIPS-TPDO-tetraCN-Based <i>n</i> -Type Organic Field-Effect Transistor with a Cross-linked PMMA Polymer Gate Dielectric. ACS Applied Materials & Interfaces, 2016, 8, 14701-14708.	8.0	54
45	Use of optical spacers to enhance infrared Mueller ellipsometry sensitivity: application to the characterization of organic thin films. Applied Optics, 2016, 55, 3323.	1.8	2
46	Sum regression decomposition of spectral and angle-resolved Mueller matrices from biological reflectors. Applied Optics, 2016, 55, 4060.	2.1	8
47	Structural circular birefringence and dichroism quantified by differential decomposition of spectroscopic transmission Mueller matrices from <i>Cetonia aurata</i> . Optics Letters, 2016, 41, 3293.	3.3	23
48	Explicit expressions for the elementary polarization properties of a weakly anisotropic, homogeneous medium. Optics Letters, 2016, 41, 3487.	3.3	1
49	Special Section Guest Editorial: Antonello De Martino (1954–2014): in memoriam. Journal of Biomedical Optics, 2016, 21, 071101.	2.6	4
50	Optical fiber-based full Mueller polarimeter for endoscopic imaging using a two-wavelength simultaneous measurement method. Journal of Biomedical Optics, 2016, 21, 071106.	2.6	26
51	Spatial evolution of depolarization in homogeneous turbid media within the differential Mueller matrix formalism. Optics Letters, 2015, 40, 5634.	3.3	45
52	Mid-infrared Mueller ellipsometer with pseudo-achromatic optical elements. Applied Optics, 2015, 54, 2776.	1.8	15
53	Sum decomposition of Mueller-matrix images and spectra of beetle cuticles. Optics Express, 2015, 23, 1951.	3.4	18
54	Photonic nanostructures for advanced light trapping in thin crystalline silicon solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 140-155.	1.8	57

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55	Application of the arbitrary decomposition to finite spot size Mueller matrix measurements. Applied Optics, 2014, 53, 6030.	1.8	13
56	Simplified calibration procedure for Mueller polarimeter in transmission configuration. Optics Letters, 2014, 39, 418.	3.3	16
57	Elementary polarization properties in the backscattering configuration. Optics Letters, 2014, 39, 6050.	3.3	16
58	Corrosion under argon irradiation of titanium in the low MeV range: A study coupling AFM and Spectroscopic Ellipsometry. Nuclear Instruments & Methods in Physics Research B, 2014, 327, 47-51.	1.4	3
59	Determination of thicknesses of oxide films grown on titanium under argon irradiation by spectroscopic ellipsometry. Journal of Nuclear Materials, 2014, 447, 197-207.	2.7	8
60	Experimentally obtained values of electric field of an atmospheric pressure plasma jet impinging on a dielectric surface. Journal Physics D: Applied Physics, 2013, 46, 372001.	2.8	65
61	Enhanced sensitivity to dielectric function and thickness of absorbing thin films by combining total internal reflection ellipsometry with standard ellipsometry and reflectometry. Journal Physics D: Applied Physics, 2013, 46, 105501.	2.8	18
62	Advanced Mueller Ellipsometry Instrumentation and Data Analysis. , 2013, , 31-143.		30
63	Maximum likelihood method for calibration of Mueller polarimeters in reflection configuration. Applied Optics, 2013, 52, 6350.	1.8	17
64	Application of Spectroscopic Ellipsometry and Mueller Ellipsometry to Optical Characterization. Applied Spectroscopy, 2013, 67, 1-21.	2.2	91
65	Experimental validation of Mueller matrix differential decomposition. Optics Express, 2012, 20, 1151.	3.4	31
66	Effect of the anodization voltage on the pore-widening rate of nanoporous anodic alumina. Nanoscale Research Letters, 2012, 7, 474.	5.7	44
67	Development of a polarization resolved mid-IR near-field microscope. , 2011, , .		2
68	Anisotropy coefficients of a Mueller matrix. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 548.	1.5	39
69	Characterization of photonic structures using visible and infrared polarimetry. EPJ Web of Conferences, 2010, 5, 02002.	0.3	1
70	Design and fabrication of photonic crystal thin film photovoltaic cells. Proceedings of SPIE, 2010, , .	0.8	2
71	Two-dimensional photonic crystal for absorption enhancement in hydrogenated amorphous silicon thin film solar cells. Journal of Applied Physics, 2010, 108, .	2.5	69
72	Pulsed laser deposited tetrahedral amorphous carbon with high sp ³ fractions and low optical bandgaps. Journal of Applied Physics, 2009, 105, 073521.	2.5	18

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73	Characterization of grating structures by Mueller polarimetry in presence of strong depolarization due to finite spot size. Optics Communications, 2009, 282, 735-741.	2.1	31
74	Calculation of Angular-Dependent Reflectance and Polarimetry Spectra of Nanoporous Anodic Alumina-Based Photonic Crystal Slabs. Photonics and Nanostructures - Fundamentals and Applications, 2009, 7, 12-18.	2.0	4
75	Retrieval of a non-depolarizing component of experimentally determined depolarizing Mueller matrices. Optics Express, 2009, 17, 12794.	3.4	28
76	Photonic band measurement by angle-resolved spectroscopy and polarimetry. , 2009, , .		0
77	Product decompositions of experimentally determined non-depolarizing Mueller matrices. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1059-1063.	0.8	4
78	Fast near-infra-red spectroscopic Mueller matrix ellipsometer based on ferroelectric liquid crystal retarders. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1097-1100.	0.8	12
79	Depolarizing Mueller matrices: how to decompose them?. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 720-727.	1.8	57
80	Monitoring critical dimensions of bidimensional gratings by spectroscopic ellipsometry and Mueller polarimetry. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 806-809.	1.8	5
81	Wide-band reflection nanoporous silicon multilayers with ellipsometric investigation of the material monolayer components. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 147, 205-208.	3.5	1
82	Polarimetric characterization of optically anisotropic flexible substrates. Thin Solid Films, 2008, 516, 1414-1418.	1.8	12
83	Dielectric properties of Ti ₂ AlC and Ti ₂ AlN ^δ MAX phases: The conductivity anisotropy. Journal of Applied Physics, 2008, 104, .	2.5	63
84	Design and characterization of achromatic 132°retarders in CaF ₂ and fused silica. Journal of Modern Optics, 2008, 55, 2203-2214.	1.3	11
85	Electronic state modification in laser deposited amorphous carbon films by the inclusion of nitrogen. Journal of Applied Physics, 2008, 104, 063701.	2.5	14
86	Critical dimension of biperiodic gratings determined by spectral ellipsometry and Mueller matrix polarimetry. EPJ Applied Physics, 2008, 42, 351-359.	0.7	30
87	Characterization of inhomogeneous samples by spectroscopic Mueller polarimetry. , 2008, , .		1
88	Polarimetric studies of polyethylene terephthalate flexible substrates. EPJ Applied Physics, 2008, 44, 229-233.	0.7	3
89	<title>Optics of nanogratings</title>. Proceedings of SPIE, 2007, , .	0.8	0
90	Effective spectral optical functions of lamellar nanogratings. Journal of the European Optical Society-Rapid Publications, 2006, 1, .	1.9	2

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91	General methods for optimized design and calibration of Mueller polarimeters. <i>Thin Solid Films</i> , 2004, 455-456, 112-119.	1.8	67
92	Spectroscopic Mueller polarimeter based on liquid crystal devices. <i>Thin Solid Films</i> , 2004, 455-456, 120-123.	1.8	92
93	Application of FTIR ellipsometry to detect and classify microorganisms. <i>Thin Solid Films</i> , 2004, 455-456, 722-725.	1.8	8
94	Mueller polarimetric microscopy. , 2004, 5324, 112.		0
95	Optimized Mueller polarimeter with liquid crystals. <i>Optics Letters</i> , 2003, 28, 616.	3.3	239
96	Application of FTIR ellipsometry to detect and classify micro-organisms. , 2003, , .		0
97	Ultraviolet phase-modulated ellipsometer. <i>Review of Scientific Instruments</i> , 2002, 73, 4307-4312.	1.3	2
98	<title>Application of Fourier-transform infrared ellipsometry to quantify biological molecules in animal tissues</title>. , 2002, 4614, 134.		1
99	Application of Fourier transform infrared ellipsometry to assess the concentration of biological molecules. <i>Applied Optics</i> , 2002, 41, 7339.	2.1	21
100	FTIR phase-modulated ellipsometry measurements of microcrystalline silicon films deposited by hot-wire CVD. <i>Journal of Non-Crystalline Solids</i> , 2002, 299-302, 215-219.	3.1	3
101	Application of FTIR phase-modulated ellipsometry to the characterisation of thin films on surface-enhanced IR absorption active substrates. <i>Thin Solid Films</i> , 2001, 398-399, 99-103.	1.8	5
102	Optimized calibration method for Fourier transform infrared phase-modulated ellipsometry. <i>Thin Solid Films</i> , 1999, 354, 187-194.	1.8	10
103	Nanoparticles of Siâ€“Câ€“N from low temperature RF plasmas: selective size, composition and structure. <i>Applied Surface Science</i> , 1999, 144-145, 702-707.	6.1	12
104	Study of the Optical and Structural Properties of Siliconâ€“Carbon Nanometric Powder Using Infrared Phase Modulated Ellipsometry and Electron Microscopy. <i>Physica Status Solidi A</i> , 1999, 175, 373-381.	1.7	2