Oriol Arteaga

List of Publications by Year
in descending order

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100	2,709	186254	206102
papers	citations	28 h-index	48 g-index

103	103	103	2203
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reconfigurable chiroptical nanocomposites with chirality transfer from the macro- to the nanoscale. Nature Materials, 2016, 15, 461-468.	27.5	220
2	Mueller matrix polarimetry with four photoelastic modulators: theory and calibration. Applied Optics, 2012, 51, 6805.	1.8	176
3	Inverting the Handedness of Circularly Polarized Luminescence from Light-Emitting Polymers Using Film Thickness. ACS Nano, 2019, 13, 8099-8105.	14.6	145
4	Analytic inversion of the Mueller-Jones polarization matrices for homogeneous media. Optics Letters, 2010, 35, 559.	3.3	104
5	Mueller matrix microscope with a dual continuous rotating compensator setup and digital demodulation. Applied Optics, 2014, 53, 2236.	1.8	104
6	Chiral Excitonic Organic Photodiodes for Direct Detection of Circular Polarized Light. Advanced Functional Materials, 2019, 29, 1900684.	14.9	80
7	Natural optical activity as the origin of the large chiroptical properties in Ï€-conjugated polymer thin films. Nature Communications, 2020, 11, 6137.	12.8	73
8	Relation between 2D/3D chirality and the appearance of chiroptical effects in real nanostructures. Optics Express, 2016, 24, 2242.	3.4	70
9	Synthesis, Structure, and Optical Activity of HPM-1, a Pure Silica Chiral Zeolite. Journal of the American Chemical Society, 2013, 135, 11975-11984.	13.7	69
10	Giant intrinsic circular dichroism of prolinol-derived squaraine thin films. Nature Communications, 2018, 9, 2413.	12.8	68
11	Statistical meaning of the differential Mueller matrix of depolarizing homogeneous media. Optics Letters, 2014, 39, 4470.	3.3	67
12	Emergence of Supramolecular Chirality by Flows. ChemPhysChem, 2010, 11, 3511-3516.	2.1	66
13	Chiral sign selection on the Jâ€aggregates of diprotonated tetrakisâ€(4â€sulfonatophenyl)porphyrin by traces of unidentified chiral contaminants present in the ultraâ€pure water used as solvent. Chirality, 2009, 21, 408-412.	2.6	62
14	On the Mechanoâ€Chiral Effect of Vortical Flows on the Dichroic Spectra of 5â€Phenylâ€10,15,20â€tris(4â€sulfonatophenyl)porphyrin Jâ€Aggregates. Chemistry - A European Journal, 2008, 14, 6438-6443.	4.3	56
15	Pseudopolar decomposition of the Jones and Mueller-Jones exponential polarization matrices. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 783.	1.5	53
16	Evidence of induced chirality in stirred solutions of supramolecular nanofibers. Optics Letters, 2009, 34, 2177.	3.3	50
17	Characterization of homogenous depolarizing media based on Mueller matrix differential decomposition. Optics Letters, 2013, 38, 1134.	3.3	46
18	Dichroism in Helicoidal Crystals. Journal of the American Chemical Society, 2016, 138, 12211-12218.	13.7	46

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19	Determination of the components of the gyration tensor of quartz by oblique incidence transmission two-modulator generalized ellipsometry. Applied Optics, 2009, 48, 5307.	2.1	44
20	Mueller matrix polarimetry of bianisotropic materials [Invited]. Journal of the Optical Society of America B: Optical Physics, 2019, 36, F72.	2.1	44
21	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
22	Complete polarimetry on the asymmetric transmission through subwavelength hole arrays. Optics Express, 2014, 22, 13719.	3.4	36
23	Mueller matrices in fluorescence scattering. Optics Letters, 2012, 37, 2835.	3.3	35
24	Kinetic Control of the Supramolecular Chirality of Porphyrin Jâ€Aggregates. Chemistry - A European Journal, 2012, 18, 8820-8826.	3.3	35
25	Reversible Mechanical Induction of Optical Activity in Solutions of Softâ€Matter Nanophases. Chemistry - an Asian Journal, 2009, 4, 1687-1696.	3.3	34
26	Reckoning electromagnetic principles with polarimetric measurements of anisotropic optically active crystals. Journal of Applied Crystallography, 2012, 45, 279-291.	4.5	31
27	Aragoâ€™s Best Paper. ChemPhysChem, 2012, 13, 79-88.	2.1	31
28	Useful Mueller matrix symmetries for ellipsometry. Thin Solid Films, 2014, 571, 584-588.	1.8	31
29	Emergence of Chiral Environments by Effect of Flows: The Case of an Ionic Oligomer and Congo Red Dye. Chemistry - A European Journal, 2011, 17, 9288-9292.	3.3	28
30	Number of independent parameters in the Mueller matrix representation of homogeneous depolarizing media. Optics Letters, 2013, 38, 1131.	3.3	28
31	Hydrodynamic Effects in Softâ€matter Selfâ€assembly: The Case of Jâ€Aggregates of Amphiphilic Porphyrins. Chemical Record, 2017, 17, 713-724.	5.8	28
32	Flow Effects in Supramolecular Chirality. Israel Journal of Chemistry, 2011, 51, 1007-1016.	2.3	23
33	Chirality generated by flows in pseudocyanine dye Jâ€aggregates: Revisiting 40 years old reports. Chirality, 2011, 23, 585-592.	2.6	22
34	Measurement of transmission and reflection from a thick anisotropic crystal modeled by a sum of incoherent partial waves. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 2049.	1.5	22
35	Spectroscopic sensing of reflection optical activity in achiral AgGaS_2. Optics Letters, 2015, 40, 4277.	3.3	22
36	Vector and matrix states for Mueller matrices of nondepolarizing optical media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 80.	1.5	21

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37	Nanoscale Bouligand Multilayers: Giant Circular Dichroism of Helical Assemblies of Plasmonic 1D Nano-Objects. ACS Nano, 2021, 15, 13653-13661.	14.6	20
38	Natural optical activity vs circular Bragg reflection studied by Mueller matrix ellipsometry. Thin Solid Films, 2016, 617, 14-19.	1.8	19
39	Mueller matrix ellipsometer based on discrete-angle rotating Fresnel rhomb compensators. Applied Optics, 2021, 60, 4964.	1.8	19
40	Mueller matrix imaging with a polarization camera: application to microscopy. Optics Express, 2021, 29, 34723.	3.4	19
41	Complete Mueller matrix from a partial polarimetry experiment: the 12-element case. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 416.	1.5	19
42	Structure and physical properties of colloidal crystals made of silica particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 401, 38-47.	4.7	18
43	Back-focal plane Mueller matrix microscopy: Mueller conoscopy and Mueller diffractrometry. Applied Surface Science, 2017, 421, 702-706.	6.1	18
44	Spontaneous mirror-symmetry breaking coupled to top-bottom chirality transfer: from porphyrin self-assembly to scalemic Dielsâ€“Alder adducts. Chemical Communications, 2019, 55, 12219-12222.	4.1	18
45	Historical revision of the differential Stokesâ€“Mueller formalism: discussion. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 410.	1.5	18
46	Structure vs. excitonic transitions in self-assembled porphyrin nanotubes and their effect on light absorption and scattering. Nanoscale, 2015, 7, 20435-20441.	5.6	17
47	Elementary polarization properties in the backscattering configuration. Optics Letters, 2014, 39, 6050.	3.3	16
48	Complete Mueller matrix from a partial polarimetry experiment: the nine-element case. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 403.	1.5	16
49	Integral decomposition and polarization properties of depolarizing Mueller matrices. Optics Letters, 2015, 40, 954.	3.3	15
50	Reversible and irreversible emergence of chiroptical signals in J-aggregates of achiral 4-sulfonatophenyl substituted porphyrins: intrinsic chirality vs. chiral ordering in the solution. Chemical Communications, 2016, 52, 10874-10877.	4.1	15
51	Analytic inversion of the Muellerâ€“Jones polarization matrices for homogeneous media: erratum. Optics Letters, 2010, 35, 3525.	3.3	14
52	Transmission Mueller matrix ellipsometry of chirality switching phenomena. Thin Solid Films, 2011, 519, 2617-2623.	1.8	14
53	Transmission ellipsometry of anisotropic substrates and thin films at oblique incidence. Handling multiple reflections. Thin Solid Films, 2014, 571, 701-705.	1.8	14
54	Optical security verification by synthesizing thin films with unique polarimetric signatures. Optics Letters, 2015, 40, 5399.	3.3	14

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55	Extended Yehâ€™s method for optically active anisotropic layered media. Optics Letters, 2017, 42, 3690.	3.3	14
56	Stern-Gerlach experiment with light: separating photons by spin with the method of A Fresnel. Optics Express, 2019, 27, 4758.	3.4	14
57	Partially coherent light propagation in stratified media containing an optically thick anisotropic layer. Applied Surface Science, 2017, 421, 571-577.	6.1	13
58	Polymorphic chiral squaraine crystallites in textured thin films. Chirality, 2020, 32, 619-631.	2.6	13
59	Chiral Biases in Solids by Effect of Shear Gradients: A Speculation on the Deterministic Origin of Biological Homochirality. Origins of Life and Evolution of Biospheres, 2010, 40, 27-40.	1.9	12
60	Controlled Pinning of Conjugated Polymer Spherulites and Its Application in Detectors. Advanced Optical Materials, 2017, 5, 1700276.	7.3	12
61	Chiroptical Measurement of Chiral Aggregates at Liquid-Liquid Interface in Centrifugal Liquid Membrane Cell by Mueller Matrix and Conventional Circular Dichroism Methods. Molecules, 2011, 16, 3636-3647.	3.8	11
62	Light scattering by coupled oriented dipoles: Decomposition of the scattering matrix. Physical Review B, 2018, 98, .	3.2	11
63	Optimal elliptical retarder in rotating compensator imaging polarimetry. Optics Letters, 2021, 46, 3139.	3.3	11
64	Achiralâ€toâ€Chiral Transition in Benzil Solidification: Analogies with Racemic Conglomerates Systems Showing Deracemization. Chirality, 2013, 25, 393-399.	2.6	10
65	Reinvestigation of Electric Fieldâ€Induced Optical Activity in Î±â€Quartz: Application of a Polarimeter With Four Photoelastic Modulators. Chirality, 2014, 26, 430-433.	2.6	10
66	Formalism of optical coherence and polarization based on material media states. Physical Review A, 2017, 95, .	2.5	10
67	Measurement of the optical activity of anisotropic samples by transmission Mueller matrix ellipsometry. EPJ Web of Conferences, 2010, 5, 03001.	0.3	9
68	Mueller matrix polarimetry on a Youngâ€™s double-slit experiment analog. Optics Letters, 2017, 42, 3900.	3.3	9
69	Authentication of gold nanoparticle encoded pharmaceutical tablets using polarimetric signatures. Optics Letters, 2016, 41, 4507.	3.3	9
70	Application of transmission ellipsometry to the determination of CD spectra of porphyrin Jâ€aggregates solidâ€state samples. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 797-801.	1.8	8
71	Optical characterization of colloidal crystals based on dissymmetric metal-coated oxide submicrospheres. Thin Solid Films, 2008, 517, 1053-1057.	1.8	8
72	Mueller matrix microscopy on a Morpho butterfly. Journal of Physics: Conference Series, 2015, 605, 012008.	0.4	8

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73	Double-sided and single-sided polished 6H-SiC wafers with subsurface damage layer studied by Mueller matrix ellipsometry. Journal of Applied Physics, 2020, 128, .	2.5	8
74	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
75	Snapshot circular dichroism measurements. Optics Express, 2019, 27, 6746.	3.4	7
76	Conversion of a polarization microscope into a Mueller matrix microscope. Application to the measurement of textile fibers. Optica Pura Y Aplicada, 2015, 48, 309-316.	0.1	7
77	On the existence of Jones birefringence and Jones dichroism. Optics Letters, 2010, 35, 1359.	3.3	6
78	Decomposition of a depolarizing Mueller matrix into its nondepolarizing components by using symmetry conditions. Applied Optics, 2016, 55, 2543.	2.1	6
79	Model-free determination of the birefringence and dichroism in c-cut crystals from transmission ellipsometry measurements. Applied Optics, 2020, 59, 2192.	1.8	6
80	Anisotropic integral decomposition of depolarizing Mueller matrices. OSA Continuum, 2019, 2, 1900.	1.8	6
81	On the equivalence between Youngâ€™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
82	Completing an experimental nondepolarizing Mueller matrix whose column or row is missing. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 052905.	1.2	5
83	Quaternion algebra for Stokesâ€“Mueller formalism. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 492.	1.5	5
84	Soleilletâ€™s formalism of coherence and partial polarization in 2D and 3D: application to fluorescence polarimetry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 1254.	1.5	4
85	Geometrical Phase Optical Components: Measuring Geometric Phase without Interferometry. Crystals, 2020, 10, 880.	2.2	4
86	Instrument-dependent method for obtaining a nondepolarizing estimate from an experimental Mueller matrix. Optical Engineering, 2019, 58, 1.	1.0	4
87	Imaging with photoelastic modulators. , 2014, , .		3
88	Liquid switchable radial polarization converters made of sculptured thin films. Applied Surface Science, 2019, 475, 230-236.	6.1	3
89	Dielectric function of vanadium oxide thin films by thermal annealing. Applied Optics, 2021, 60, 4477.	1.8	3
90	Constitutive Relations for Optically Active Anisotropic Media: A Review. Advanced Photonics Research, 2021, 2, 2100160.	3.6	3

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91	Detection and characterization of single nanoparticles by interferometric phase modulated ellipsometry. Thin Solid Films, 2011, 519, 2801-2805.	1.8	2
92	Optical activity of oriented molecular systems in terms of the magnetoelectric tensor of gyrotropy. Journal of Optics (United Kingdom), 2014, 16, 125707.	2.2	2
93	Fresnelâ€“Arago fifth law of interference: the first description of a geometric phase in optics. Journal of Modern Optics, 2021, 68, 350-356.	1.3	2
94	Retrieval of the non-depolarizing components of depolarizing Mueller matrices by using symmetry conditions and least squares minimization. Applied Surface Science, 2017, 421, 697-701.	6.1	1
95	Experimental evidence for partial spatial coherence in imaging Mueller polarimetry. Optics Letters, 2017, 42, 4740.	3.3	1
96	Asymmetric Scattering and Reciprocity in a Plasmonic Dimer. Symmetry, 2020, 12, 1790.	2.2	1
97	Wide-field NIR imaging Mueller polarimetric system for tissue analysis. , 2022, , .		1
98	Polarimetric analysis of the extraordinary optical transmission through subwavelength hole arrays. Proceedings of SPIE, 2014, , .	0.8	0
99	Beyond polarization microscopy: Mueller matrix microscopy with frequency demodulation. Proceedings of SPIE, 2014, , .	0.8	0
100	Spectrally modulated polarimetry with wavelength domain analysis. Applied Optics, 2022, 61, 5608.	1.8	0