

# Oriol Arteaga

## List of Publications by Year in descending order

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100  
papers

2,709  
citations

212478

28  
h-index

232693

48  
g-index

103  
all docs

103  
docs citations

103  
times ranked

2504  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wide-field NIR imaging Mueller polarimetric system for tissue analysis. , 2022, , .		1
2	Spectrally modulated polarimetry with wavelength domain analysis. Applied Optics, 2022, 61, 5608.	0.9	0
3	Fresnel's Arago fifth law of interference: the first description of a geometric phase in optics. Journal of Modern Optics, 2021, 68, 350-356.	0.6	2
4	Mueller matrix ellipsometer based on discrete-angle rotating Fresnel rhomb compensators. Applied Optics, 2021, 60, 4964.	0.9	19
5	Dielectric function of vanadium oxide thin films by thermal annealing. Applied Optics, 2021, 60, 4477.	0.9	3
6	Constitutive Relations for Optically Active Anisotropic Media: A Review. Advanced Photonics Research, 2021, 2, 2100160.	1.7	3
7	Optimal elliptical retarder in rotating compensator imaging polarimetry. Optics Letters, 2021, 46, 3139.	1.7	11
8	Nanoscale Bouligand Multilayers: Giant Circular Dichroism of Helical Assemblies of Plasmonic 1D Nano-Objects. ACS Nano, 2021, 15, 13653-13661.	7.3	20
9	Mueller matrix imaging with a polarization camera: application to microscopy. Optics Express, 2021, 29, 34723.	1.7	19
10	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, .	0.6	7
11	Geometrical Phase Optical Components: Measuring Geometric Phase without Interferometry. Crystals, 2020, 10, 880.	1.0	4
12	Natural optical activity as the origin of the large chiroptical properties in $\pi$ -conjugated polymer thin films. Nature Communications, 2020, 11, 6137.	5.8	73
13	Double-sided and single-sided polished 6H-SiC wafers with subsurface damage layer studied by Mueller matrix ellipsometry. Journal of Applied Physics, 2020, 128, .	1.1	8
14	Asymmetric Scattering and Reciprocity in a Plasmonic Dimer. Symmetry, 2020, 12, 1790.	1.1	1
15	Polymorphic chiral squaraine crystallites in textured thin films. Chirality, 2020, 32, 619-631.	1.3	13
16	Model-free determination of the birefringence and dichroism in c-cut crystals from transmission ellipsometry measurements. Applied Optics, 2020, 59, 2192.	0.9	6
17	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.	0.6	5
18	Inverting the Handedness of Circularly Polarized Luminescence from Light-Emitting Polymers Using Film Thickness. ACS Nano, 2019, 13, 8099-8105.	7.3	145

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19	Chiral Excitonic Organic Photodiodes for Direct Detection of Circular Polarized Light. <i>Advanced Functional Materials</i> , 2019, 29, 1900684.	7.8	80
20	Spontaneous mirror-symmetry breaking coupled to top-bottom chirality transfer: from porphyrin self-assembly to scalemic Diels-Alder adducts. <i>Chemical Communications</i> , 2019, 55, 12219-12222.	2.2	18
21	Liquid switchable radial polarization converters made of sculptured thin films. <i>Applied Surface Science</i> , 2019, 475, 230-236.	3.1	3
22	Complete Mueller matrix from a partial polarimetry experiment: the nine-element case. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2019, 36, 403.	0.8	16
23	Complete Mueller matrix from a partial polarimetry experiment: the 12-element case. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2019, 36, 416.	0.8	19
24	Quaternion algebra for Stokes-Mueller formalism. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2019, 36, 492.	0.8	5
25	Mueller matrix polarimetry of bianisotropic materials [Invited]. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, F72.	0.9	44
26	Stern-Gerlach experiment with light: separating photons by spin with the method of A Fresnel. <i>Optics Express</i> , 2019, 27, 4758.	1.7	14
27	Snapshot circular dichroism measurements. <i>Optics Express</i> , 2019, 27, 6746.	1.7	7
28	Anisotropic integral decomposition of depolarizing Mueller matrices. <i>OSA Continuum</i> , 2019, 2, 1900.	1.8	6
29	Instrument-dependent method for obtaining a nondepolarizing estimate from an experimental Mueller matrix. <i>Optical Engineering</i> , 2019, 58, 1.	0.5	4
30	Giant intrinsic circular dichroism of prolinol-derived squaraine thin films. <i>Nature Communications</i> , 2018, 9, 2413.	5.8	68
31	Soleillet's formalism of coherence and partial polarization in 2D and 3D: application to fluorescence polarimetry. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2018, 35, 1254.	0.8	4
32	Light scattering by coupled oriented dipoles: Decomposition of the scattering matrix. <i>Physical Review B</i> , 2018, 98, .	1.1	11
33	Hydrodynamic Effects in Soft-matter Self-assembly: The Case of Aggregates of Amphiphilic Porphyrins. <i>Chemical Record</i> , 2017, 17, 713-724.	2.9	28
34	Back-focal plane Mueller matrix microscopy: Mueller conoscopy and Mueller diffractometry. <i>Applied Surface Science</i> , 2017, 421, 702-706.	3.1	18
35	Retrieval of the non-depolarizing components of depolarizing Mueller matrices by using symmetry conditions and least squares minimization. <i>Applied Surface Science</i> , 2017, 421, 697-701.	3.1	1
36	Controlled Pinning of Conjugated Polymer Spherulites and Its Application in Detectors. <i>Advanced Optical Materials</i> , 2017, 5, 1700276.	3.6	12

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37	Formalism of optical coherence and polarization based on material media states. <i>Physical Review A</i> , 2017, 95, .	1.0	10
38	Partially coherent light propagation in stratified media containing an optically thick anisotropic layer. <i>Applied Surface Science</i> , 2017, 421, 571-577.	3.1	13
39	On the equivalence between Young's double-slit and crystal double-refraction interference experiments. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2017, 34, 1309.	0.8	5
40	Extended Yeh's method for optically active anisotropic layered media. <i>Optics Letters</i> , 2017, 42, 3690.	1.7	14
41	Experimental evidence for partial spatial coherence in imaging Mueller polarimetry. <i>Optics Letters</i> , 2017, 42, 4740.	1.7	1
42	Mueller matrix polarimetry on a Young's double-slit experiment analog. <i>Optics Letters</i> , 2017, 42, 3900.	1.7	9
43	Vector and matrix states for Mueller matrices of nondepolarizing optical media. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2017, 34, 80.	0.8	21
44	Historical revision of the differential Stokes's Mueller formalism: discussion. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2017, 34, 410.	0.8	18
45	Natural optical activity vs circular Bragg reflection studied by Mueller matrix ellipsometry. <i>Thin Solid Films</i> , 2016, 617, 14-19.	0.8	19
46	Decomposition of a depolarizing Mueller matrix into its nondepolarizing components by using symmetry conditions. <i>Applied Optics</i> , 2016, 55, 2543.	2.1	6
47	Relation between 2D/3D chirality and the appearance of chiroptical effects in real nanostructures. <i>Optics Express</i> , 2016, 24, 2242.	1.7	70
48	Reversible and irreversible emergence of chiroptical signals in J-aggregates of achiral 4-sulfonatophenyl substituted porphyrins: intrinsic chirality vs. chiral ordering in the solution. <i>Chemical Communications</i> , 2016, 52, 10874-10877.	2.2	15
49	Dichroism in Helicoidal Crystals. <i>Journal of the American Chemical Society</i> , 2016, 138, 12211-12218.	6.6	46
50	Reconfigurable chiroptical nanocomposites with chirality transfer from the macro- to the nanoscale. <i>Nature Materials</i> , 2016, 15, 461-468.	13.3	220
51	Authentication of gold nanoparticle encoded pharmaceutical tablets using polarimetric signatures. <i>Optics Letters</i> , 2016, 41, 4507.	1.7	9
52	Optical security verification by synthesizing thin films with unique polarimetric signatures. <i>Optics Letters</i> , 2015, 40, 5399.	1.7	14
53	Measurement of transmission and reflection from a thick anisotropic crystal modeled by a sum of incoherent partial waves. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2015, 32, 2049.	0.8	22
54	Mueller matrix microscopy on a Morpho butterfly. <i>Journal of Physics: Conference Series</i> , 2015, 605, 012008.	0.3	8

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55	Integral decomposition and polarization properties of depolarizing Mueller matrices. Optics Letters, 2015, 40, 954.	1.7	15
56	Structure <i>vs.</i> excitonic transitions in self-assembled porphyrin nanotubes and their effect on light absorption and scattering. Nanoscale, 2015, 7, 20435-20441.	2.8	17
57	Spectroscopic sensing of reflection optical activity in achiral AgGaS <sub>2</sub> . Optics Letters, 2015, 40, 4277.	1.7	22
58	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.	0.0	7
59	Optical activity of oriented molecular systems in terms of the magnetoelectric tensor of gyrotropy. Journal of Optics (United Kingdom), 2014, 16, 125707.	1.0	2
60	Polarimetric analysis of the extraordinary optical transmission through subwavelength hole arrays. Proceedings of SPIE, 2014, , .	0.8	0
61	Mueller matrix microscope with a dual continuous rotating compensator setup and digital demodulation. Applied Optics, 2014, 53, 2236.	0.9	104
62	Statistical meaning of the differential Mueller matrix of depolarizing homogeneous media. Optics Letters, 2014, 39, 4470.	1.7	67
63	Elementary polarization properties in the backscattering configuration. Optics Letters, 2014, 39, 6050.	1.7	16
64	Reinvestigation of Electric Field-Induced Optical Activity in L-Quartz: Application of a Polarimeter With Four Photoelastic Modulators. Chirality, 2014, 26, 430-433.	1.3	10
65	Imaging with photoelastic modulators. , 2014, , .		3
66	Transmission ellipsometry of anisotropic substrates and thin films at oblique incidence. Handling multiple reflections. Thin Solid Films, 2014, 571, 701-705.	0.8	14
67	Useful Mueller matrix symmetries for ellipsometry. Thin Solid Films, 2014, 571, 584-588.	0.8	31
68	Complete polarimetry on the asymmetric transmission through subwavelength hole arrays. Optics Express, 2014, 22, 13719.	1.7	36
69	Beyond polarization microscopy: Mueller matrix microscopy with frequency demodulation. Proceedings of SPIE, 2014, , .	0.8	0
70	Synthesis, Structure, and Optical Activity of HPM-1, a Pure Silica Chiral Zeolite. Journal of the American Chemical Society, 2013, 135, 11975-11984.	6.6	69
71	Achiral- to Chiral Transition in Benzil Solidification: Analogies with Racemic Conglomerates Systems Showing Deracemization. Chirality, 2013, 25, 393-399.	1.3	10
72	Number of independent parameters in the Mueller matrix representation of homogeneous depolarizing media. Optics Letters, 2013, 38, 1131.	1.7	28

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73	Characterization of homogenous depolarizing media based on Mueller matrix differential decomposition. <i>Optics Letters</i> , 2013, 38, 1134.	1.7	46
74	Mueller matrices in fluorescence scattering. <i>Optics Letters</i> , 2012, 37, 2835.	1.7	35
75	Mueller matrix polarimetry with four photoelastic modulators: theory and calibration. <i>Applied Optics</i> , 2012, 51, 6805.	0.9	176
76	Kinetic Control of the Supramolecular Chirality of Porphyrin $\pi$ -Aggregates. <i>Chemistry - A European Journal</i> , 2012, 18, 8820-8826.	1.7	35
77	Structure and physical properties of colloidal crystals made of silica particles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 401, 38-47.	2.3	18
78	Reckoning electromagnetic principles with polarimetric measurements of anisotropic optically active crystals. <i>Journal of Applied Crystallography</i> , 2012, 45, 279-291.	1.9	31
79	Arago's Best Paper. <i>ChemPhysChem</i> , 2012, 13, 79-88.	1.0	31
80	Anisotropy coefficients of a Mueller matrix. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2011, 28, 548.	0.8	39
81	Chiroptical Measurement of Chiral Aggregates at Liquid-Liquid Interface in Centrifugal Liquid Membrane Cell by Mueller Matrix and Conventional Circular Dichroism Methods. <i>Molecules</i> , 2011, 16, 3636-3647.	1.7	11
82	Flow Effects in Supramolecular Chirality. <i>Israel Journal of Chemistry</i> , 2011, 51, 1007-1016.	1.0	23
83	Emergence of Chiral Environments by Effect of Flows: The Case of an Ionic Oligomer and Congo Red Dye. <i>Chemistry - A European Journal</i> , 2011, 17, 9288-9292.	1.7	28
84	Chirality generated by flows in pseudocyanine dye $\pi$ -aggregates: Revisiting 40 years old reports. <i>Chirality</i> , 2011, 23, 585-592.	1.3	22
85	Transmission Mueller matrix ellipsometry of chirality switching phenomena. <i>Thin Solid Films</i> , 2011, 519, 2617-2623.	0.8	14
86	Detection and characterization of single nanoparticles by interferometric phase modulated ellipsometry. <i>Thin Solid Films</i> , 2011, 519, 2801-2805.	0.8	2
87	Measurement of the optical activity of anisotropic samples by transmission Mueller matrix ellipsometry. <i>EPJ Web of Conferences</i> , 2010, 5, 03001.	0.1	9
88	Chiral Biases in Solids by Effect of Shear Gradients: A Speculation on the Deterministic Origin of Biological Homochirality. <i>Origins of Life and Evolution of Biospheres</i> , 2010, 40, 27-40.	0.8	12
89	Emergence of Supramolecular Chirality by Flows. <i>ChemPhysChem</i> , 2010, 11, 3511-3516.	1.0	66
90	Analytic inversion of the Mueller-Jones polarization matrices for homogeneous media. <i>Optics Letters</i> , 2010, 35, 559.	1.7	104

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91	On the existence of Jones birefringence and Jones dichroism. Optics Letters, 2010, 35, 1359.	1.7	6
92	Analytic inversion of the Mueller's Jones polarization matrices for homogeneous media: erratum. Optics Letters, 2010, 35, 3525.	1.7	14
93	Chiral sign selection on the aggregates of diprotonated tetrakis(4-sulfonatophenyl)porphyrin by traces of unidentified chiral contaminants present in the ultra-pure water used as solvent. Chirality, 2009, 21, 408-412.	1.3	62
94	Reversible Mechanical Induction of Optical Activity in Solutions of Soft-Matter Nanophases. Chemistry - an Asian Journal, 2009, 4, 1687-1696.	1.7	34
95	Evidence of induced chirality in stirred solutions of supramolecular nanofibers. Optics Letters, 2009, 34, 2177.	1.7	50
96	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.	0.8	53
97	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
98	Application of transmission ellipsometry to the determination of CD spectra of porphyrin aggregates solid-state samples. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 797-801.	0.8	8
99	Optical characterization of colloidal crystals based on dissymmetric metal-coated oxide submicrospheres. Thin Solid Films, 2008, 517, 1053-1057.	0.8	8
100	On the Mechano-Chiral Effect of Vortical Flows on the Dichroic Spectra of 5-Phenyl-10,15,20-tris(4-sulfonatophenyl)porphyrin Aggregates. Chemistry - A European Journal, 2008, 14, 6438-6443.	1.7	56