

Javier Alda

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9564808/publications.pdf>

Version: 2024-02-01

139
papers

1,838
citations

257450

24
h-index

315739

38
g-index

139
all docs

139
docs citations

139
times ranked

1222
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometrical limits for UV-C inactivation of pathogens. <i>Optik</i> , 2022, 250, 168269.	2.9	1
2	Nanostructured Top Contact as an Alternative to Transparent Conductive Oxides in Tandem Perovskite/c-Si Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1854.	2.5	0
3	Resonant nano-dimer metasurface for ultra-thin a-Si:H solar cells. <i>Scientific Reports</i> , 2021, 11, 7179.	3.3	10
4	Computational and Experimental Analysis of Gold Nanorods in Terms of Their Morphology: Spectral Absorption and Local Field Enhancement. <i>Nanomaterials</i> , 2021, 11, 1696.	4.1	3
5	Determination of the characteristic inactivation fluence for SARS-CoV-2 under UV-C radiation considering light absorption in culture media. <i>Scientific Reports</i> , 2021, 11, 15293.	3.3	5
6	Plasmonic Sensors Based on Funneling Light Through Nanophotonic Structures. <i>Plasmonics</i> , 2020, 15, 915-921.	3.4	5
7	Ultra-Narrow Spectral Response of a Hybrid Plasmonic-Grating Sensor. <i>IEEE Sensors Journal</i> , 2020, 20, 3520-3528.	4.7	5
8	Enabling selective absorption in perovskite solar cells for refractometric sensing of gases. <i>Scientific Reports</i> , 2020, 10, 7761.	3.3	5
9	Opto-Electronic Refractometric Sensor Based on Surface Plasmon Resonances and the Bolometric Effect. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1211.	2.5	5
10	Narrow Absorption in ITO-Free Perovskite Solar Cells for Sensing Applications Analyzed through Electromagnetic Simulation. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4850.	2.5	8
11	Performance Improvement of Refractometric Sensors Through Hybrid Plasmonic Fano Resonances. <i>Journal of Lightwave Technology</i> , 2019, 37, 2905-2913.	4.6	34
12	Detection of Histamine Dihydrochloride at Low Concentrations Using Raman Spectroscopy Enhanced by Gold Nanostars Colloids. <i>Nanomaterials</i> , 2019, 9, 211.	4.1	15
13	Laser-induced thermoelectric effects in electrically biased nanoscale constrictions. <i>Nanophotonics</i> , 2018, 7, 1917-1927.	6.0	10
14	Spectral Response of Metallic Optical Antennas Driven by Temperature. <i>Plasmonics</i> , 2017, 12, 553-561.	3.4	2
15	Broadband anti-reflection coating using dielectric Si ₃ N ₄ nanostructures. Application to amorphous-Si-H solar cells. <i>Optics Communications</i> , 2017, 390, 130-136.	2.1	30
16	Funneling and guiding effects in ultrathin a-Si-H solar cells using one-dimensional dielectric subwavelength gratings. <i>Journal of Photonics for Energy</i> , 2017, 7, 017002.	1.3	10
17	Phase imaging and detection in pseudo-heterodyne scattering scanning near-field optical microscopy measurements. <i>Applied Optics</i> , 2017, 56, 1037.	2.1	13
18	High-sensitivity integrated devices based on surface plasmon resonance for sensing applications. <i>Photonics Research</i> , 2017, 5, 654.	7.0	50

#	ARTICLE	IF	CITATIONS
19	Plasmonic Sensor Based on Dielectric Nanoprisms. <i>Nanoscale Research Letters</i> , 2017, 12, 580.	5.7	13
20	Infrared Antennas and Resonant Structures. , 2017, , .		3
21	Optical Tuning of Nanospheres Through Phase Transition: An Optical Nanocircuit Analysis. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 2878-2881.	2.5	2
22	Responsivity and resonant properties of dipole, bowtie, and spiral Seebeck nanoantennas. <i>Journal of Photonics for Energy</i> , 2016, 6, 024501.	1.3	11
23	Characterization of spatial-temporal patterns in dynamic speckle sequences using principal component analysis. <i>Optical Engineering</i> , 2016, 55, 121705.	1.0	4
24	Detectivity comparison of bolometric optical antennas. , 2015, , .		2
25	Resonant elements contactless coupled to bolometric micro-stripes. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
26	Characterization of dynamic speckle sequences using principal component analysis and image descriptors. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
27	Dynamic speckle analysis using multivariate techniques. <i>Journal of Optics (United Kingdom)</i> , 2015, 17, 035609.	2.2	6
28	Improved and customized secondary optics for photo-voltaic concentrators. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
29	Analysis of the spectral response of fractal antennas related with its geometry and current paths. <i>Proceedings of SPIE</i> , 2015, , .	0.8	0
30	Analysis of metallic nanoantennas for solar energy conversion. , 2015, , .		0
31	Steerable optical antennas by selective heating. <i>Optics Letters</i> , 2014, 39, 1957.	3.3	5
32	Computational analysis of a spiral thermoelectric nanoantenna for solar energy harvesting applications. , 2014, , .		3
33	Polarimetric pixel using Seebeck nanoantennas. <i>Optics Express</i> , 2014, 22, 13835.	3.4	14
34	Seebeck nanoantennas for the detection and characterization of infrared radiation. <i>Optics Express</i> , 2014, 22, A1538.	3.4	25
35	Micromachined silicon lenses for terahertz applications. <i>Infrared Physics and Technology</i> , 2013, 61, 144-148.	2.9	1
36	Optimization of distributed bolometers coupled to optical antennas in the infrared. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
37	Antenna array connections for efficient performance of distributed microbolometers in the IR. Optics Express, 2013, 21, 10867.	3.4	10
38	Robustness of antenna-coupled distributed bolometers. Optics Letters, 2013, 38, 3784.	3.3	12
39	Diffraction characterization of the vibrational state of an array of microcantilevers. Optical Engineering, 2013, 52, 091717.	1.0	0
40	Conversion efficiency of broad-band rectennas for solar energy harvesting applications. Optics Express, 2013, 21, A412.	3.4	60
41	Multiphysics simulation for the optimization of optical nanoantennas working as distributed bolometers in the infrared. Journal of Nanophotonics, 2013, 7, 073093.	1.0	11
42	“Evaluators”: Advances in Educational Technologies and Instructional Design Book Series, 2013, , 244-269.	0.2	0
43	Distributed bolometric effect in optical antennas and resonant structures. Journal of Nanophotonics, 2012, 6, 063512.	1.0	15
44	Use of Raman spectroscopy in the analysis of nickel allergy. Journal of Biomedical Optics, 2012, 18, 061206.	2.6	15
45	Measurement limitations in knife-edge tomographic phase retrieval of focused IR laser beams. Optics Express, 2012, 20, 23875.	3.4	3
46	An analytical model for the opto-thermo-mechanical conversion mechanisms in a MOEMS-based energy harvester. Proceedings of SPIE, 2012, , .	0.8	2
47	Noise and Artifact Characterization of in Vivo Raman Spectroscopy Skin Measurements. Applied Spectroscopy, 2012, 66, 650-655.	2.2	18
48	Material dependence of the distributed bolometric effect in resonant metallic nanostructures. Proceedings of SPIE, 2012, , .	0.8	5
49	Measurement of the vibration state of an array of micro cantilevers by diffractive methods. Optica Pura Y Aplicada, 2012, 45, 105-111.	0.1	0
50	Modulation transfer function for infrared reflectarrays. Applied Optics, 2011, 50, 5344.	2.1	6
51	Use of Raman spectroscopy for the early detection of filaggrin-related atopic dermatitis. Skin Research and Technology, 2011, 17, 45-50.	1.6	33
52	Spectral response and far-field pattern of a dipole nano-antenna on metamaterial substrates having near-zero and negative indices of refraction. Optics Communications, 2011, 284, 1429-1434.	2.1	9
53	Optical Nanoantennas Coupled to Photonic Crystal Cavities and Waveguides for Near-Field Sensing. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 446-449.	2.9	8
54	Diffraction optical elements with square concentric rings of equal width. Microwave and Optical Technology Letters, 2010, 52, 930-934.	1.4	2

#	ARTICLE	IF	CITATIONS
55	Evaluation of the meridional longitudinal spherical aberration from corneal topography measurements. <i>Optik</i> , 2010, 121, 2269-2272.	2.9	0
56	Early Detection of Filaggrin-Related Atopic Dermatitis by Raman Spectroscopy and Principal Component Analysis. , 2010, , .		0
57	Monochromatic aberrations in resonant optical elements applied to a focusing multilevel reflectarray. <i>Optics Express</i> , 2010, 18, 10931.	3.4	5
58	Polygonal Fresnel zone plates. <i>Journal of Optics</i> , 2009, 11, 085707.	1.5	14
59	Optimized square Fresnel zone plates for microoptics applications. , 2009, , .		2
60	Diffraction performance of square Fresnel zone plates. <i>Optics Communications</i> , 2009, 282, 3402-3407.	2.1	30
61	The effect of metal dispersion on the resonance of antennas at infrared frequencies. <i>Infrared Physics and Technology</i> , 2009, 52, 48-51.	2.9	62
62	Fresnel zone antenna for dual-band detection at millimeter and infrared wavelengths. <i>Optics Letters</i> , 2009, 34, 809.	3.3	26
63	Measurement of the Mutual Coherence Function of an Incoherent Infrared Field with a Gold Nano-wire Dipole Antenna Array. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2008, 29, 179-187.	0.6	7
64	Optimization of polygonal Fresnel zone plates. <i>Microwave and Optical Technology Letters</i> , 2008, 50, 536-541.	1.4	14
65	Orthogonal infrared dipole antenna. <i>Infrared Physics and Technology</i> , 2008, 51, 340-343.	2.9	17
66	Planar infrared binary phase reflectarray. <i>Optics Letters</i> , 2008, 33, 779.	3.3	40
67	Application of tomographic techniques to the spatial-response mapping of antenna-coupled detectors in the visible. <i>Applied Optics</i> , 2008, 47, 768.	2.1	3
68	High-resolution spatial-response measurements of optical nano-antennas in the visible. , 2007, , .		0
69	Off-axis behavior of an infrared meander-line waveplate. <i>Optics Letters</i> , 2007, 32, 2852.	3.3	9
70	Principal components analysis of the photoresponse nonuniformity of a matrix detector. <i>Applied Optics</i> , 2007, 46, 9.	2.1	13
71	Louvers design for LED displays for sunny days. <i>Displays</i> , 2007, 28, 167-173.	3.7	5
72	Irradiance map of an apertured Gaussian beam affected by coma. <i>Optics Communications</i> , 2007, 271, 517-523.	2.1	4

#	ARTICLE	IF	CITATIONS
73	Design of Fresnel lenses and binary-staircase kinoforms of low value of the aperture number. Optics Communications, 2006, 260, 454-461.	2.1	13
74	CONDITIONS FOR THE APPLICABILITY OF THE PRINCIPAL COMPONENT ANALYSIS TO THE CHARACTERIZATION OF THE 1/f-NOISE. Fluctuation and Noise Letters, 2006, 06, L17-L28.	1.5	3
75	Nano-antennas for optoelectronics and nanophotonics. SPIE Newsroom, 2006, , .	0.1	2
76	Multivariate analysis of photonic crystal microcavities with fabrication defects. , 2005, , .		5
77	Infrared antenna metrology. , 2005, 5987, 181.		3
78	Alignment characterization in micro and nano technologies. , 2005, , .		1
79	FDTD analysis of nano-antenna structures with dispersive materials at optical frequencies. , 2005, , .		0
80	Estimation of the influence of finite dielectric substrates on the far-field pattern of an array of metallic scatterers in the infrared. Infrared Physics and Technology, 2005, 46, 267-276.	2.9	0
81	Characterization of dynamic sea scenarios with infrared imagers. Infrared Physics and Technology, 2005, 46, 355-363.	2.9	11
82	Antenna-coupled infrared detectors for imaging applications. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 117-120.	2.9	80
83	Optical antennas for nano-photonic applications. Nanotechnology, 2005, 16, S230-S234.	2.6	144
84	Uncertainty analysis in the measurement of the spatial responsivity of infrared antennas. Applied Optics, 2005, 44, 4557.	2.1	13
85	Characterization of photonic crystal microcavities with manufacture imperfections. Optics Express, 2005, 13, 3802.	3.4	8
86	Characterization of artifacts in fully digital image-acquisition systems: Application to web cameras. Optical Engineering, 2004, 43, 257.	1.0	19
87	Design alternatives for a thin lens spatial integrator array. Optik, 2004, 115, 481-486.	2.9	1
88	Photonic crystal characterization by FDTD and principal component analysis. Optics Express, 2004, 12, 2176.	3.4	27
89	Infrared antennas coupled to lithographic Fresnel zone plate lenses. Applied Optics, 2004, 43, 6067.	2.1	41
90	Characterization of FDTD artifacts and modes in photonic crystals. , 2004, , .		0

#	ARTICLE	IF	CITATIONS
91	Spatial-temporal structures in noise processes: microscopic and macroscopic dynamics. , 2004, , .		0
92	Finite-difference time-domain simulation of low-F# Fresnel zone plates coupled to IR antennas. , 2004, , .		1
93	Identification of weak faint point sources by using principal component analysis. , 2004, , .		1
94	Correlations in finance: a statistical approach. , 2004, , .		3
95	<title>Spatial characterization of light detectors with nanometric resolution</title>. , 2004, 5407, 226.		1
96	Noise in imaging systems: fixed pattern noise, electronic, and interference noise. , 2004, 5468, 399.		0
97	<title>Characterization of phase artifacts for focal plane arrays</title>. , 2004, , .		0
98	Characterization of scenarios for multiband and hyperspectral imagers. , 2004, 5439, 140.		3
99	Characterization of hyperspectral imagers and scenes: background and equipment artifacts. , 2004, , .		1
100	Principal component analysis of noise in an image-acquisition system: bad pixel extraction. , 2003, , .		0
101	Spatial-temporal characterization of noise in web cameras. , 2003, , .		1
102	Bad pixel identification by means of principal components analysis. Optical Engineering, 2002, 41, 2152.	1.0	47
103	Matricial representation of the transfer function for aliased systems. , 2002, 4719, 208.		1
104	Automatic classification for noise of infrared images into processes by means of the principal component analysis. , 2002, , .		3
105	Principal-component characterization of noise for infrared images. Applied Optics, 2002, 41, 320.	2.1	74
106	Angular shifts of paraxial beams by refraction in a plane dielectric/dielectric interface. Optics Communications, 2002, 213, 229-239.	2.1	5
107	Quality improvement of a coherent and aberrated laser beam by using an optimum and smooth pure phase filter. Optics Communications, 2001, 192, 199-204.	2.1	6
108	Thermal impedance model of electrostatic discharge effects on microbolometers. Microwave and Optical Technology Letters, 2000, 26, 291-293.	1.4	24

#	ARTICLE	IF	CITATIONS
109	Transverse angular shift in the reflection of light beams. Optics Communications, 2000, 182, 1-10.	2.1	11
110	Responsivity of infrared antenna-coupled microbolometers for air-side and substrate-side illumination. Infrared Physics and Technology, 2000, 41, 1-9.	2.9	22
111	Visual perception of the Moire effect. Ophthalmic and Physiological Optics, 1999, 19, 427-430.	2.0	2
112	Planar optical array with a spatial-integration feature. Applied Optics, 1999, 38, 1133.	2.1	5
113	Deconvolution method for two-dimensional spatial-response mapping of lithographic infrared antennas. Applied Optics, 1999, 38, 3993.	2.1	31
114	Lithographic antennas at visible frequencies. Optics Letters, 1999, 24, 1629.	3.3	70
115	Properties of moire magnifiers. Optical Engineering, 1998, 37, 3007.	1.0	33
116	Throughput vs. the M^2 quality factor. , 1998, 3418, 44.		1
117	Optimum design of optical arrays with spatial integration feature. Optical Engineering, 1997, 36, 2872.	1.0	5
118	Characterization of aberrated laser beams. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 2737.	1.5	76
119	Spatial-temporal coupling in a grating-pair pulse compression system analysed by matrix optics. Optical and Quantum Electronics, 1995, 27, 785-798.	3.3	11
120	Moment determination of light beams by using polynomial transmittance windows. Optics Communications, 1995, 116, 8-14.	2.1	2
121	Zernike-based matrix model of deformable mirrors: optimization of aperture size. Applied Optics, 1993, 32, 2431.	2.1	21
122	Retroreflective properties of a hemispherical surface. Applied Optics, 1993, 32, 4279.	2.1	2
123	Nonlinear propagation and transformation of arbitrary laser beams by means of the generalized ABCD formalism. Applied Optics, 1993, 32, 5885.	2.1	34
124	Transformation of pulsed nonideal beams in a four-dimension domain. Optics Letters, 1993, 18, 669.	3.3	25
125	Focal shift and astigmatism for a circular zone plate. , 1993, 1979, 456.		0
126	Analysis of edge effects for deformable mirrors. Optical Engineering, 1992, 31, 2282.	1.0	0

#	ARTICLE	IF	CITATIONS
127	Complex beam parameter and ABCD law for non-Gaussian and nonspherical light beams. Applied Optics, 1992, 31, 6389.	2.1	64
128	Unified and generalized Fresnel numbers. Optical and Quantum Electronics, 1992, 24, 1351-1358.	3.3	15
129	ABCD matrix for weakly apertured Gaussian beams in the far field. Applied Optics, 1991, 30, 1584.	2.1	7
130	ABCD matrix for apertured spherical waves. Applied Optics, 1991, 30, 1585.	2.1	3
131	<title>Advanced matrix optics and its incidence in laser optics</title>. , 1991, 1397, 595.		0
132	<title>Multimode laser beams behaviour through variable reflectivity mirrors</title>. , 1991, , .		0
133	Matrix representation of multimode beam transformation. , 1991, 1527, 240.		0
134	Analytical expression for the complex radius of curvature tensor Q for generalized gaussian beams. Optics Communications, 1991, 80, 350-352.	2.1	51
135	Gaussian modes changed by apertured resonators analyzed by matrix methods. Optics Communications, 1991, 86, 401-404.	2.1	1
136	Amplitude-modulated and frequency-modulated reticle responses of Gaussian beams. Optical Engineering, 1991, 30, 1986.	1.0	10
137	On-axis and off-axis propagation of Gaussian beams in gradient index media. Applied Optics, 1990, 29, 2944.	2.1	22
138	Electromagnetic Radiation Energy Harvesting â€œ The Rectenna Based Approach. , 0, , .		9
139	â€œEvaluatorâ€™, 0, , 1601-1626.		0