

Javier Alda

List of Publications by Year in descending order

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139
papers

1,838
citations

257450

24
h-index

315739

38
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139
all docs

139
docs citations

139
times ranked

1222
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical antennas for nano-photonic applications. <i>Nanotechnology</i> , 2005, 16, S230-S234.	2.6	144
2	Antenna-coupled infrared detectors for imaging applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2005, 11, 117-120.	2.9	80
3	Characterization of aberrated laser beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1997, 14, 2737.	1.5	76
4	Principal-component characterization of noise for infrared images. <i>Applied Optics</i> , 2002, 41, 320.	2.1	74
5	Lithographic antennas at visible frequencies. <i>Optics Letters</i> , 1999, 24, 1629.	3.3	70
6	Complex beam parameter and ABCD law for non-Gaussian and nonspherical light beams. <i>Applied Optics</i> , 1992, 31, 6389.	2.1	64
7	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
8	Conversion efficiency of broad-band rectennas for solar energy harvesting applications. <i>Optics Express</i> , 2013, 21, A412.	3.4	60
9	Analytical expression for the complex radius of curvature tensor Q for generalized gaussian beams. <i>Optics Communications</i> , 1991, 80, 350-352.	2.1	51
10	High-sensitivity integrated devices based on surface plasmon resonance for sensing applications. <i>Photonics Research</i> , 2017, 5, 654.	7.0	50
11	Bad pixel identification by means of principal components analysis. <i>Optical Engineering</i> , 2002, 41, 2152.	1.0	47
12	Infrared antennas coupled to lithographic Fresnel zone plate lenses. <i>Applied Optics</i> , 2004, 43, 6067.	2.1	41
13	Planar infrared binary phase reflectarray. <i>Optics Letters</i> , 2008, 33, 779.	3.3	40
14	Nonlinear propagation and transformation of arbitrary laser beams by means of the generalized ABCD formalism. <i>Applied Optics</i> , 1993, 32, 5885.	2.1	34
15	Performance Improvement of Refractometric Sensors Through Hybrid Plasmonic "Fano Resonances. <i>Journal of Lightwave Technology</i> , 2019, 37, 2905-2913.	4.6	34
16	Properties of moiré magnifiers. <i>Optical Engineering</i> , 1998, 37, 3007.	1.0	33
17	Use of Raman spectroscopy for the early detection of filaggrin-related atopic dermatitis. <i>Skin Research and Technology</i> , 2011, 17, 45-50.	1.6	33
18	Deconvolution method for two-dimensional spatial-response mapping of lithographic infrared antennas. <i>Applied Optics</i> , 1999, 38, 3993.	2.1	31

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19	Diffractive performance of square Fresnel zone plates. Optics Communications, 2009, 282, 3402-3407.	2.1	30
20	Broadband anti-reflection coating using dielectric Si ₃ N ₄ nanostructures. Application to amorphous-Si-H solar cells. Optics Communications, 2017, 390, 130-136.	2.1	30
21	Photonic crystal characterization by FDTD and principal component analysis. Optics Express, 2004, 12, 2176.	3.4	27
22	Fresnel zone antenna for dual-band detection at millimeter and infrared wavelengths. Optics Letters, 2009, 34, 809.	3.3	26
23	Transformation of pulsed nonideal beams in a four-dimension domain. Optics Letters, 1993, 18, 669.	3.3	25
24	Seebeck nanoantennas for the detection and characterization of infrared radiation. Optics Express, 2014, 22, A1538.	3.4	25
25	Thermal impedance model of electrostatic discharge effects on microbolometers. Microwave and Optical Technology Letters, 2000, 26, 291-293.	1.4	24
26	On-axis and off-axis propagation of Gaussian beams in gradient index media. Applied Optics, 1990, 29, 2944.	2.1	22
27	Responsivity of infrared antenna-coupled microbolometers for air-side and substrate-side illumination. Infrared Physics and Technology, 2000, 41, 1-9.	2.9	22
28	Zernike-based matrix model of deformable mirrors: optimization of aperture size. Applied Optics, 1993, 32, 2431.	2.1	21
29	Characterization of artifacts in fully digital image-acquisition systems: Application to web cameras. Optical Engineering, 2004, 43, 257.	1.0	19
30	Noise and Artifact Characterization of in Vivo Raman Spectroscopy Skin Measurements. Applied Spectroscopy, 2012, 66, 650-655.	2.2	18
31	Orthogonal infrared dipole antenna. Infrared Physics and Technology, 2008, 51, 340-343.	2.9	17
32	Unified and generalized Fresnel numbers. Optical and Quantum Electronics, 1992, 24, 1351-1358.	3.3	15
33	Distributed bolometric effect in optical antennas and resonant structures. Journal of Nanophotonics, 2012, 6, 063512.	1.0	15
34	Use of Raman spectroscopy in the analysis of nickel allergy. Journal of Biomedical Optics, 2012, 18, 061206.	2.6	15
35	Detection of Histamine Dihydrochloride at Low Concentrations Using Raman Spectroscopy Enhanced by Gold Nanostars Colloids. Nanomaterials, 2019, 9, 211.	4.1	15
36	Optimization of polygonal Fresnel zone plates. Microwave and Optical Technology Letters, 2008, 50, 536-541.	1.4	14

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37	Polygonal Fresnel zone plates. <i>Journal of Optics</i> , 2009, 11, 085707.	1.5	14
38	Polarimetric pixel using Seebeck nanoantennas. <i>Optics Express</i> , 2014, 22, 13835.	3.4	14
39	Uncertainty analysis in the measurement of the spatial responsivity of infrared antennas. <i>Applied Optics</i> , 2005, 44, 4557.	2.1	13
40	Design of Fresnel lenses and binary-staircase kinoforms of low value of the aperture number. <i>Optics Communications</i> , 2006, 260, 454-461.	2.1	13
41	Principal components analysis of the photoresponse nonuniformity of a matrix detector. <i>Applied Optics</i> , 2007, 46, 9.	2.1	13
42	Phase imaging and detection in pseudo-heterodyne scattering scanning near-field optical microscopy measurements. <i>Applied Optics</i> , 2017, 56, 1037.	2.1	13
43	Plasmonic Sensor Based on Dielectric Nanoprisms. <i>Nanoscale Research Letters</i> , 2017, 12, 580.	5.7	13
44	Robustness of antenna-coupled distributed bolometers. <i>Optics Letters</i> , 2013, 38, 3784.	3.3	12
45	Spatial-temporal coupling in a grating-pair pulse compression system analysed by matrix optics. <i>Optical and Quantum Electronics</i> , 1995, 27, 785-798.	3.3	11
46	Transverse angular shift in the reflection of light beams. <i>Optics Communications</i> , 2000, 182, 1-10.	2.1	11
47	Characterization of dynamic sea scenarios with infrared imagers. <i>Infrared Physics and Technology</i> , 2005, 46, 355-363.	2.9	11
48	Multiphysics simulation for the optimization of optical nanoantennas working as distributed bolometers in the infrared. <i>Journal of Nanophotonics</i> , 2013, 7, 073093.	1.0	11
49	Responsivity and resonant properties of dipole, bowtie, and spiral Seebeck nanoantennas. <i>Journal of Photonics for Energy</i> , 2016, 6, 024501.	1.3	11
50	Amplitude-modulated and frequency-modulated reticle responses of Gaussian beams. <i>Optical Engineering</i> , 1991, 30, 1986.	1.0	10
51	Antenna array connections for efficient performance of distributed microbolometers in the IR. <i>Optics Express</i> , 2013, 21, 10867.	3.4	10
52	Funneling and guiding effects in ultrathin aSi:H solar cells using one-dimensional dielectric subwavelength gratings. <i>Journal of Photonics for Energy</i> , 2017, 7, 017002.	1.3	10
53	Laser-induced thermoelectric effects in electrically biased nanoscale constrictions. <i>Nanophotonics</i> , 2018, 7, 1917-1927.	6.0	10
54	Resonant nano-dimer metasurface for ultra-thin a-Si:H solar cells. <i>Scientific Reports</i> , 2021, 11, 7179.	3.3	10

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55	Off-axis behavior of an infrared meander-line waveplate. Optics Letters, 2007, 32, 2852.	3.3	9
56	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
57	Electromagnetic Radiation Energy Harvesting “ The Rectenna Based Approach. , 0, , .		9
58	Characterization of photonic crystal microcavities with manufacture imperfections. Optics Express, 2005, 13, 3802.	3.4	8
59	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
60	Narrow Absorption in ITO-Free Perovskite Solar Cells for Sensing Applications Analyzed through Electromagnetic Simulation. Applied Sciences (Switzerland), 2019, 9, 4850.	2.5	8
61	ABCD matrix for weakly apertured Gaussian beams in the far field. Applied Optics, 1991, 30, 1584.	2.1	7
62	Measurement of the Mutual Coherence Function of an Incoherent Infrared Field with a Gold Nano-wire Dipole Antenna Array. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 179-187.	0.6	7
63	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
64	Modulation transfer function for infrared reflectarrays. Applied Optics, 2011, 50, 5344.	2.1	6
65	Dynamic speckle analysis using multivariate techniques. Journal of Optics (United Kingdom), 2015, 17, 035609.	2.2	6
66	Optimum design of optical arrays with spatial integration feature. Optical Engineering, 1997, 36, 2872.	1.0	5
67	Planar optical array with a spatial-integration feature. Applied Optics, 1999, 38, 1133.	2.1	5
68	Angular shifts of paraxial beams by refraction in a plane dielectric/dielectric interface. Optics Communications, 2002, 213, 229-239.	2.1	5
69	Multivariate analysis of photonic crystal microcavities with fabrication defects. , 2005, , .		5
70	Louvers design for LED displays for sunny days. Displays, 2007, 28, 167-173.	3.7	5
71	Monochromatic aberrations in resonant optical elements applied to a focusing multilevel reflectarray. Optics Express, 2010, 18, 10931.	3.4	5
72	Material dependence of the distributed bolometric effect in resonant metallic nanostructures. Proceedings of SPIE, 2012, , .	0.8	5

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73	Steerable optical antennas by selective heating. <i>Optics Letters</i> , 2014, 39, 1957.	3.3	5
74	Plasmonic Sensors Based on Funneling Light Through Nanophotonic Structures. <i>Plasmonics</i> , 2020, 15, 915-921.	3.4	5
75	Ultra-Narrow Spectral Response of a Hybrid Plasmonic-Grating Sensor. <i>IEEE Sensors Journal</i> , 2020, 20, 3520-3528.	4.7	5
76	Enabling selective absorption in perovskite solar cells for refractometric sensing of gases. <i>Scientific Reports</i> , 2020, 10, 7761.	3.3	5
77	Opto-Electronic Refractometric Sensor Based on Surface Plasmon Resonances and the Bolometric Effect. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1211.	2.5	5
78	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
79	Irradiance map of an apertured Gaussian beam affected by coma. <i>Optics Communications</i> , 2007, 271, 517-523.	2.1	4
80	Characterization of spatial-temporal patterns in dynamic speckle sequences using principal component analysis. <i>Optical Engineering</i> , 2016, 55, 121705.	1.0	4
81	ABCD matrix for apertured spherical waves. <i>Applied Optics</i> , 1991, 30, 1585.	2.1	3
82	Automatic classification for noise of infrared images into processes by means of the principal component analysis. , 2002, , .		3
83	Correlations in finance: a statistical approach. , 2004, , .		3
84	Characterization of scenarios for multiband and hyperspectral imagers. , 2004, 5439, 140.		3
85	Infrared antenna metrology. , 2005, 5987, 181.		3
86	CONDITIONS FOR THE APPLICABILITY OF THE PRINCIPAL COMPONENT ANALYSIS TO THE CHARACTERIZATION OF THE 1/f-NOISE. <i>Fluctuation and Noise Letters</i> , 2006, 06, L17-L28.	1.5	3
87	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
88	Measurement limitations in knife-edge tomographic phase retrieval of focused IR laser beams. <i>Optics Express</i> , 2012, 20, 23875.	3.4	3
89	Computational analysis of a spiral thermoelectric nanoantenna for solar energy harvesting applications. , 2014, , .		3
90	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

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91	Infrared Antennas and Resonant Structures. , 2017, , .		3
92	Retroreflective properties of a hemispherical surface. Applied Optics, 1993, 32, 4279.	2.1	2
93	Moment determination of light beams by using polynomial transmittance windows. Optics Communications, 1995, 116, 8-14.	2.1	2
94	Visual perception of the Moire effect. Ophthalmic and Physiological Optics, 1999, 19, 427-430.	2.0	2
95	Optimized square Fresnel zone plates for microoptics applications. , 2009, , .		2
96	Diffractive optical elements with square concentric rings of equal width. Microwave and Optical Technology Letters, 2010, 52, 930-934.	1.4	2
97	An analytical model for the opto-thermo-mechanical conversion mechanisms in a MOEMS-based energy harvester. Proceedings of SPIE, 2012, , .	0.8	2
98	Detectivity comparison of bolometric optical antennas. , 2015, , .		2
99	Optical Tuning of Nanospheres Through Phase Transition: An Optical Nanocircuit Analysis. IEEE Photonics Technology Letters, 2016, 28, 2878-2881.	2.5	2
100	Spectral Response of Metallic Optical Antennas Driven by Temperature. Plasmonics, 2017, 12, 553-561.	3.4	2
101	Nano-antennas for optoelectronics and nanophotonics. SPIE Newsroom, 2006, , .	0.1	2
102	Gaussian modes changed by apertured resonators analyzed by matrix methods. Optics Communications, 1991, 86, 401-404.	2.1	1
103	<title>Throughput vs. the M^2 quality factor</title>. , 1998, 3418, 44.		1
104	Matricial representation of the transfer function for aliased systems. , 2002, 4719, 208.		1
105	Spatial-temporal characterization of noise in web cameras. , 2003, , .		1
106	Design alternatives for a thin lens spatial integrator array. Optik, 2004, 115, 481-486.	2.9	1
107	Finite-difference time-domain simulation of low-F# Fresnel zone plates coupled to IR antennas. , 2004, , .		1
108	Identification of weak faint point sources by using principal component analysis. , 2004, , .		1

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109	<title>Spatial characterization of light detectors with nanometric resolution</title>. , 2004, 5407, 226.		1
110	Characterization of hyperspectral imagers and scenes: background and equipment artifacts. , 2004, , .		1
111	Alignment characterization in micro and nano technologies. , 2005, , .		1
112	Micromachined silicon lenses for terahertz applications. Infrared Physics and Technology, 2013, 61, 144-148.	2.9	1
113	Resonant elements contactless coupled to bolometric micro-strips. Proceedings of SPIE, 2015, , .	0.8	1
114	Characterization of dynamic speckle sequences using principal component analysis and image descriptors. Proceedings of SPIE, 2015, , .	0.8	1
115	Improved and customized secondary optics for photo-voltaic concentrators. Proceedings of SPIE, 2015, , .	0.8	1
116	Geometrical limits for UV-C inactivation of pathogens. Optik, 2022, 250, 168269.	2.9	1
117	<title>Advanced matrix optics and its incidence in laser optics</title>. , 1991, 1397, 595.		0
118	<title>Multimode laser beams behaviour through variable reflectivity mirrors</title>. , 1991, , .		0
119	Matrix representation of multimode beam transformation. , 1991, 1527, 240.		0
120	Analysis of edge effects for deformable mirrors. Optical Engineering, 1992, 31, 2282.	1.0	0
121	Focal shift and astigmatism for a circular zone plate. , 1993, 1979, 456.		0
122	Principal component analysis of noise in an image-acquisition system: bad pixel extraction. , 2003, , .		0
123	Characterization of FDTD artifacts and modes in photonic crystals. , 2004, , .		0
124	Spatial-temporal structures in noise processes: microscopic and macroscopic dynamics. , 2004, , .		0
125	Noise in imaging systems: fixed pattern noise, electronic, and interference noise. , 2004, 5468, 399.		0
126	<title>Characterization of phase artifacts for focal plane arrays</title>. , 2004, , .		0

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127	FDTD analysis of nano-antenna structures with dispersive materials at optical frequencies. , 2005, , .		0
128	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
129	High-resolution spatial-response measurements of optical nano-antennas in the visible. , 2007, , .		0
130	Evaluation of the meridional longitudinal spherical aberration from corneal topography measurements. Optik, 2010, 121, 2269-2272.	2.9	0
131	Early Detection of Filaggrin-Related Atopic Dermatitis by Raman Spectroscopy and Principal Component Analysis. , 2010, , .		0
132	Optimization of distributed bolometers coupled to optical antennas in the infrared. , 2013, , .		0
133	Diffraction characterization of the vibrational state of an array of microcantilevers. Optical Engineering, 2013, 52, 091717.	1.0	0
134	Analysis of the spectral response of fractal antennas related with its geometry and current paths. Proceedings of SPIE, 2015, , .	0.8	0
135	Analysis of metallic nanoantennas for solar energy conversion. , 2015, , .		0
136	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
137	“Evaluator”, Advances in Educational Technologies and Instructional Design Book Series, 2013, , 244-269.	0.2	0
138	“Evaluator”, 0, , 1601-1626.		0
139	Nanostructured Top Contact as an Alternative to Transparent Conductive Oxides in Tandem Perovskite/c-Si Solar Cells. Applied Sciences (Switzerland), 2022, 12, 1854.	2.5	0