

# J Antonio Del Rio

## List of Publications by Year in descending order

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99  
papers

1,807  
citations

361413

20  
h-index

315739

38  
g-index

100  
all docs

100  
docs citations

100  
times ranked

1303  
citing authors

#	ARTICLE	IF	CITATIONS
1	Light transmission in quasiperiodic multilayers of porous silicon. Journal of Non-Crystalline Solids, 2003, 329, 140-143.	3.1	151
2	Photon Bloch Oscillations in Porous Silicon Optical Superlattices. Physical Review Letters, 2004, 92, 097401.	7.8	127
3	Tailoring the photonic band gap of a porous silicon dielectric mirror. Applied Physics Letters, 2003, 82, 1512-1514.	3.3	117
4	Citation mining: Integrating text mining and bibliometrics for research user profiling. Journal of the Association for Information Science and Technology, 2001, 52, 1148-1156.	2.6	90
5	Enhancement in the dynamic response of a viscoelastic fluid flowing in a tube. Physical Review E, 1998, 58, 6323-6327.	2.1	77
6	Renormalized Impact Factor. Scientometrics, 2000, 47, 3-9.	3.0	61
7	Flow of Maxwell fluids in porous media. Transport in Porous Media, 1996, 25, 167-192.	2.6	57
8	Maxwell's Equations in Two-Phase Systems I: Local Electrodynamic Equilibrium. Transport in Porous Media, 2000, 39, 159-186.	2.6	49
9	Cellular automata for one-lane traffic flow modeling. Transportation Research Part C: Emerging Technologies, 2005, 13, 63-74.	7.6	44
10	Perfect light transmission in Fibonacci arrays of dielectric multilayers. Journal of Physics Condensed Matter, 2009, 21, 155901.	1.8	41
11	Experimental observation of dramatic differences in the dynamic response of Newtonian and Maxwellian fluids. Physical Review E, 2003, 68, 046301.	2.1	38
12	Influence of surface coverage on the effective optical properties of porous silicon modeled as a Si-wire array. Journal of Applied Physics, 1997, 81, 1923-1928.	2.5	36
13	Electrohydrodynamics in Porous Media. Transport in Porous Media, 2001, 44, 385-405.	2.6	35
14	Formula for the conductivity of a two-component material based on the reciprocity theorem. Solid State Communications, 1998, 106, 183-186.	1.9	34
15	New kind of phase separation in a CA traffic model with anticipation. Journal of Physics A, 2004, 37, 3769-3781.	1.6	33
16	Multiband negative refraction in one-dimensional photonic crystals. Optics Express, 2009, 17, 3036.	3.4	29
17	A thermal study of optical fibres transmitting concentrated solar energy. Journal Physics D: Applied Physics, 1999, 32, 1000-1005.	2.8	26
18	Maxwell's Equations in Two-Phase Systems II: Two-Equation Model. Transport in Porous Media, 2000, 39, 259-287.	2.6	26

#	ARTICLE	IF	CITATIONS
19	Enhanced heat transfer using oscillatory flows in solar collectors. <i>Solar Energy</i> , 2006, 80, 1296-1302.	6.1	24
20	Measurements of the bulk and interfacial velocity profiles in oscillating Newtonian and Maxwellian fluids. <i>Physical Review E</i> , 2005, 72, 016308.	2.1	23
21	The structure and infrastructure of Mexico's science and technology. <i>Technological Forecasting and Social Change</i> , 2005, 72, 798-814.	11.6	22
22	Collaboration in science among Latin American countries. <i>Revista Espanola De Documentacion Cientifica</i> , 2007, 30, .	0.4	21
23	Optical fibres for a mini-dish/Stirling system: thermodynamic optimization. <i>Journal Physics D: Applied Physics</i> , 2002, 35, 1241-1250.	2.8	20
24	A plausible explanation for heart rates in mammals. <i>Journal of Theoretical Biology</i> , 2010, 265, 599-603.	1.7	20
25	Effective electrical conductivity of porous silicon: A novel theoretical approach. <i>Solid State Communications</i> , 1993, 87, 541-545.	1.9	18
26	Fluorescence tuning of confined molecules in porous silicon mirrors. <i>Applied Physics Letters</i> , 2007, 91, 121909.	3.3	18
27	Refractive index contrast in porous silicon multilayers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 1721-1724.	0.8	18
28	Clustering methodologies for identifying country core competencies. <i>Journal of Information Science</i> , 2007, 33, 21-40.	3.3	17
29	Refractive index evaluation of porous silicon using Bragg reflectors. <i>Revista Mexicana De Física</i> , 2017, 64, 72-81.	0.4	17
30	Electrical properties of porous silicon/polypyrrole heterojunctions. <i>Solar Energy Materials and Solar Cells</i> , 2006, 90, 2413-2420.	6.2	16
31	Solar oven for intertropical zones: Optogeometrical design. <i>Energy Conversion and Management</i> , 2007, 48, 2649-2656.	9.2	16
32	Thermodynamic characterization of the diffusive transport to wave propagation transition in heat conducting thin films. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	16
33	Stochastic optimization of broadband reflecting photonic structures. <i>Scientific Reports</i> , 2018, 8, 1193.	3.3	16
34	Macromolecule mass spectrometry: Citation mining of user documents. <i>Journal of the American Society for Mass Spectrometry</i> , 2004, 15, 281-287.	2.8	15
35	DETERMINATION OF THE COMPLEX REFRACTIVE INDEX OF POROUS SILICON LAYERS ON CRYSTALLINE SILICON SUBSTRATES. <i>International Journal of Modern Physics B</i> , 2010, 24, 4835-4850.	2.0	15
36	Wind Power Error Estimation in Resource Assessments. <i>PLoS ONE</i> , 2015, 10, e0124830.	2.5	15

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37	FILTERS, MIRRORS AND MICROCAVITIES FROM POROUS SILICON. International Journal of Modern Physics B, 2006, 20, 99-110.	2.0	14
38	Instabilities in the oscillatory flow of a complex fluid. Physical Review E, 2007, 75, 056307.	2.1	14
39	Heat transfer enhancement in oscillatory flows of Newtonian and viscoelastic fluids. International Journal of Heat and Mass Transfer, 2009, 52, 5472-5478.	4.8	14
40	An Entangled Model for Sustainability Indicators. PLoS ONE, 2015, 10, e0135250.	2.5	14
41	Fluctuations far from equilibrium: Hyperbolic transport. Physical Review E, 1997, 55, 5033-5043.	2.1	13
42	Surface contributions to the effective optical properties of porous silicon. Solar Energy Materials and Solar Cells, 1998, 52, 239-249.	6.2	13
43	Dynamic permeability of electrically conducting fluids under magnetic fields in annular ducts. Physical Review E, 2001, 64, 016313.	2.1	13
44	Duplicate publication and "paper inflation" in the fractals literature. Science and Engineering Ethics, 2006, 12, 543-554.	2.9	13
45	Anomalous patterned scattering spectra of one-dimensional porous silicon photonic crystals. Optics Express, 2010, 18, 22808.	3.4	12
46	Comments on the Existence of Hamiltonian Principles for Non-Selfadjoint Operators. Journal of Non-Equilibrium Thermodynamics, 1996, 21, .	4.2	11
47	Application of fiber optics in the hydrogen production by photoelectrolysis. International Journal of Hydrogen Energy, 1998, 23, 985-993.	7.1	11
48	Non-linear model for absorption in SiO <sub>2</sub> optical fibres: Transport of concentrated solar energy. Solar Energy Materials and Solar Cells, 2000, 64, 209-224.	6.2	11
49	A theoretical and experimental thermal study of SiO <sub>2</sub> optical fibres transmitting concentrated radiative energy. Journal Physics D: Applied Physics, 2002, 35, 95-102.	2.8	11
50	Rayleigh scattering in multilayered structures of porous silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3544-3547.	0.8	11
51	The importance of mean time in power resource assessment for small wind turbine applications. Energy for Sustainable Development, 2016, 30, 32-38.	4.5	11
52	A Generalization of the Richards Equation Within Extended Irreversible Thermodynamics. Water Resources Research, 1991, 27, 2141-2142.	4.2	10
53	Nonequilibrium variational principle for the time evolution of an ionized gas. Physical Review E, 1993, 47, 178-183.	2.1	10
54	Classical field theory and stochastic properties of hyperbolic equations of dissipative processes. Physica A: Statistical Mechanics and Its Applications, 1999, 268, 482-498.	2.6	9

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55	Analysis about sampling, uncertainties and selection of a reliable probabilistic model of wind speed data used on resource assessment. <i>Renewable Energy</i> , 2013, 50, 244-252.	8.9	9
56	The bifoil photodyne: a photonic crystal oscillator. <i>Scientific Reports</i> , 2014, 4, 3705.	3.3	9
57	Transverse component of the electrical conductivity of porous silicon "I. <i>Solid State Communications</i> , 1994, 90, 411-415.	1.9	8
58	Nonlinear Heat Waves In Extended Irreversible Thermodynamics. <i>Journal of Non-Equilibrium Thermodynamics</i> , 1995, 20, .	4.2	8
59	Effective conductivity of chemically deposited ZnO thin films. <i>Thin Solid Films</i> , 1997, 293, 320-326.	1.8	8
60	Improved method for estimating static formation temperatures in geothermal and petroleum wells. <i>Geothermics</i> , 2015, 57, 73-83.	3.4	8
61	Two effective temperatures in traffic flow models: analogies with granular flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 307, 527-547.	2.6	7
62	Optimal behavior of viscoelastic flow at resonant frequencies. <i>Physical Review E</i> , 2004, 70, 056302.	2.1	7
63	Thermodynamic analysis of a solar coffee maker. <i>Energy Conversion and Management</i> , 2009, 50, 2407-2412.	9.2	7
64	Optical and thermal properties of edible coatings for application in solar drying. <i>Scientific Reports</i> , 2021, 11, 10051.	3.3	7
65	The impact of physics research. <i>Physics World</i> , 2001, 14, 47-52.	0.0	6
66	Viscoelastic fingering with a pulsed pressure signal. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S2055-S2060.	1.8	6
67	Staggered Pad <sup>®</sup> wavelength distribution for multi-Bragg photonic mirrors. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 315-321.	6.2	6
68	The Non-Equilibrium Thermodynamics of the Soil Water System: A Variational Approach. <i>Journal of Non-Equilibrium Thermodynamics</i> , 1992, 17, .	4.2	5
69	Path integral approach to fluctuations in relativistic transport. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 253, 290-300.	2.6	5
70	Photon losses in porous silicon microcavities. <i>Physica Status Solidi A</i> , 2005, 202, 2626-2632.	1.7	5
71	Role of an Oxidant Mixture as Surface Modifier of Porous Silicon Microstructures Evaluated by Spectroscopic Ellipsometry. <i>Scientific Reports</i> , 2016, 6, 24798.	3.3	5
72	On the Criteria for Deriving Approximations of Different Orders in Extended Irreversible Thermodynamics. <i>Journal of Non-Equilibrium Thermodynamics</i> , 1990, 15, .	4.2	4

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73	Effective conductivity of porous silicon: A theoretical approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994, 207, 163-167.	2.6	4
74	Consequences of a generalized Ohm's law for magnetic transport in conducting media. <i>Journal Physics D: Applied Physics</i> , 1999, 32, 639-643.	2.8	4
75	Optical properties of charged inclusions. <i>Solid State Communications</i> , 2001, 117, 555-559.	1.9	4
76	Effect of the electric field on the luminescence of self-supporting porous silicon. <i>Physica Status Solidi A</i> , 2003, 197, 345-349.	1.7	4
77	Heat transfer in photonic mirrors. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 4348-4355.	2.2	4
78	Network characterization of the Entangled Model for sustainability indicators. Analysis of the network properties for scenarios. <i>PLoS ONE</i> , 2018, 13, e0208718.	2.5	4
79	The Influence of the External Signal Modulation Waveform and Frequency on the Performance of a Photonic Forced Oscillator. <i>Materials</i> , 2018, 11, 854.	2.9	4
80	Effective Medium Correlations for Experimental Absorption Data. <i>Physica Status Solidi A</i> , 2000, 182, 291-295.	1.7	3
81	Diffusion of Charged Species in Liquids. <i>Scientific Reports</i> , 2016, 6, 35211.	3.3	3
82	Thermographic visualization of a flow instability in an electromagnetically driven electrolyte layer. <i>Experimental Thermal and Fluid Science</i> , 2019, 109, 109882.	2.7	3
83	Dynamic effective conductivity of porous silicon. <i>Journal of Non-Crystalline Solids</i> , 1995, 182, 206-211.	3.1	2
84	Influence of Nonlinear Local Properties on Effective Transport. <i>Transport in Porous Media</i> , 1998, 31, 89-108.	2.6	2
85	Ab initio simulation of p-type silicon crystals. <i>Solid State Communications</i> , 2012, 152, 1619-1624.	1.9	2
86	Ab initio simulations of p-type porous silicon nanostructures. <i>Journal of Nanostructure in Chemistry</i> , 2013, 3, 1.	9.1	2
87	Solar Energy Research in Ibero-America, a Citation Mining Approach. <i>Energy Procedia</i> , 2014, 57, 930-939.	1.8	2
88	Applied physics in Mexico: mining the past to predict the future. <i>Scientometrics</i> , 2020, 125, 187-212.	3.0	2
89	Optical and thermal performance of a toroidal compound parabolic concentrator. <i>Applied Optics</i> , 2021, 60, 2213.	1.8	2
90	Reversible charging effects on optical properties of porous silicon. <i>Solid State Communications</i> , 2001, 120, 21-24.	1.9	1

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91	Photonic Quasiperiodic Multilayers of Porous Silicon. Materials Research Society Symposia Proceedings, 2003, 797, 140.	0.1	1
92	Chemical modification of porous silicon mirror for biosensing applications. , 2007, , .		1
93	Theoretical and experimental study of electromagnetic forces induced in one-dimensional photonic crystals. , 2013, , .		1
94	Quantum mechanics for non-inertial reference frames. European Journal of Physics, 2021, 42, 045405.	0.6	1
95	Morphology Study of a Hybrid Structure Based on Porous Silicon and Polypyrrole. Materials Research Society Symposia Proceedings, 2006, 939, 1.	0.1	0
96	A plausible approach to heat transfer enhancement: non-Fourier heat transfer in fluids under oscillating conditions. Journal of Physics Communications, 2018, 2, 055006.	1.2	0
97	Temperature distribution inside a porous silicon photonic mirror. Journal Physics D: Applied Physics, 2022, 55, 065101.	2.8	0
98	New guide for first order multiplet analysis by modified J doubling in the frequency domain. Arkivoc, 2006, 2003, 213-226.	0.5	0
99	Modeling an urban highway: A statistical physics point of view for a nonphysical system. Revista Mexicana De Fisica E, 2019, 65, 114-127.	0.1	0