J Antonio Del Rio

List of Publications by Citations

96 papers	1,360 citations	19 h-index	31 g-index
100 ext. papers	1,469 ext. citations	3.5 avg, IF	4.25 L-index

#	Paper	IF	Citations
96	Photon BLOCH oscillations in porous silicon optical superlattices. *Physical Review Letters*, **2004**, 92, 097401	7.1	112
95	Tailoring the photonic band gap of a porous silicon dielectric mirror. *Applied Physics Letters*, **2003**, 82, 1512-1514	3.4	102
94	Citation mining: Integrating text mining and bibliometrics for research user profiling. *Journal of the Association for Information Science and Technology*, **2001**, 52, 1148-1156		66
93	Enhancement in the dynamic response of a viscoelastic fluid flowing in a tube. *Physical Review E*, **1998**, 58, 6323-6327	2.4	65
92	Flow of Maxwell fluids in porous media. *Transport in Porous Media*, **1996**, 25, 167-192	3.1	45
91	Maxwell Equations in Two-Phase Systems I: Local Electrodynamic Equilibrium. *Transport in Porous Media*, **2000**, 39, 159-186	3.1	38
90	Perfect light transmission in Fibonacci arrays of dielectric multilayers. *Journal of Physics Condensed Matter*, **2009**, 21, 155901	1.8	36
89	Experimental observation of dramatic differences in the dynamic response of Newtonian and Maxwellian fluids. *Physical Review E*, **2003**, 68, 046301	2.4	34
88	Renormalized Impact Factor. *Scientometrics*, **2000**, 47, 3-9	3	34
87	Cellular automata for one-lane traffic flow modeling. *Transportation Research Part C: Emerging Technologies*, **2005**, 13, 63-74	8.4	33
86	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	32
85	Formula for the conductivity of a two-component material based on the reciprocity theorem. *Solid State Communications*, **1998**, 106, 183-186	1.6	31
84	New kind of phase separation in a CA traffic model with anticipation. *Journal of Physics A*, **2004**, 37, 3769-3781		29
83	Electrohydrodynamics in Porous Media. *Transport in Porous Media*, **2001**, 44, 385-405	3.1	29
82	Multiband negative refraction in one-dimensional photonic crystals. *Optics Express*, **2009**, 17, 3042-51	3.3	22
81	Maxwell's Equations in Two-Phase Systems II: Two-Equation Model. *Transport in Porous Media*, **2000** , 39, 259-287	3.1	22
80	A thermal study of optical fibres transmitting concentrated solar energy. *Journal Physics D: Applied Physics*, **1999**, 32, 1000-1005	3	22

79	Enhanced heat transfer using oscillatory flows in solar collectors. *Solar Energy*, **2006**, 80, 1296-1302	6.8	20
78	Measurements of the bulk and interfacial velocity profiles in oscillating Newtonian and Maxwellian fluids. *Physical Review E*, **2005**, 72, 016308	2.4	20
77	Optical fibres for a mini-dish/Stirling system: thermodynamic optimization. *Journal Physics D: Applied Physics*, **2002**, 35, 1241-1250	3	18
76	A plausible explanation for heart rates in mammals. *Journal of Theoretical Biology*, **2010**, 265, 599-603	2.3	16
75	The structure and infrastructure of Mexico's science and technology. *Technological Forecasting and Social Change*, **2005**, 72, 798-814	9.5	16
74	Thermodynamic characterization of the diffusive transport to wave propagation transition in heat conducting thin films. *Journal of Applied Physics*, **2012**, 112, 123707	2.5	15
73	Fluorescence tuning of confined molecules in porous silicon mirrors. *Applied Physics Letters*, **2007**, 91, 121909	3.4	15
72	Electrical properties of porous silicon/polypyrrole heterojunctions. *Solar Energy Materials and Solar Cells*, **2006**, 90, 2413-2420	6.4	15
71	Effective electrical conductivity of porous silicon: A novel theoretical approach. *Solid State Communications*, **1993**, 87, 541-545	1.6	15
70	An Entangled Model for Sustainability Indicators. *PLoS ONE*, **2015**, 10, e0135250	3.7	14
69	Refractive index contrast in porous silicon multilayers. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, 1721-1724		14
68	Solar oven for intertropical zones: Optogeometrical design. *Energy Conversion and Management*, **2007**, 48, 2649-2656	10.6	14
67	Instabilities in the oscillatory flow of a complex fluid. *Physical Review E*, **2007**, 75, 056307	2.4	14
66	Clustering methodologies for identifying country core competencies. *Journal of Information Science* , **2007**, 33, 21-40	2	14
65	Fluctuations far from equilibrium: Hyperbolic transport. *Physical Review E*, **1997**, 55, 5033-5043	2.4	13
64	Surface contributions to the effective optical properties of porous silicon. *Solar Energy Materials and Solar Cells*, **1998**, 52, 239-249	6.4	13
63	Refractive index evaluation of porous silicon using Bragg reflectors. *Revista Mexicana De Física*, **2017**, 64, 72-81	3.5	13
62	Collaboration in science among Latin American countries. *Revista Espanola De Documentacion Cientifica*, **2007**, 30,	0.7	13

61	Stochastic optimization of broadband reflecting photonic structures. *Scientific Reports*, **2018**, 8, 1193	4.9	12
60	Wind power error estimation in resource assessments. *PLoS ONE*, **2015**, 10, e0124830	3.7	12
59	DETERMINATION OF THE COMPLEX REFRACTIVE INDEX OF POROUS SILICON LAYERS ON CRYSTALLINE SILICON SUBSTRATES. *International Journal of Modern Physics B*, **2010**, 24, 4835-4850	1.1	12
58	FILTERS, MIRRORS AND MICROCAVITIES FROM POROUS SILICON. *International Journal of Modern Physics B*, **2006**, 20, 99-110	1.1	12
57	Dynamic permeability of electrically conducting fluids under magnetic fields in annular ducts. *Physical Review E*, **2001**, 64, 016313	2.4	11
56	Anomalous patterned scattering spectra of one-dimensional porous silicon photonic crystals. *Optics Express*, **2010**, 18, 22808-16	3.3	10
55	Heat transfer enhancement in oscillatory flows of Newtonian and viscoelastic fluids. *International Journal of Heat and Mass Transfer*, **2009**, 52, 5472-5478	4.9	10
54	Application of fiber optics in the hydrogen production by photoelectrolysis. *International Journal of Hydrogen Energy*, **1998**, 23, 985-993	6.7	10
53	A theoretical and experimental thermal study of SiO2optical fibres transmitting concentrated radiative energy. *Journal Physics D: Applied Physics*, **2002**, 35, 95-102	3	10
52	Comments on the Existence of Hamiltonian Principles for Non-Selfadjoint Operators. *Journal of Non-Equilibrium Thermodynamics*, **1996**, 21,	3.8	10
51	Duplicate publication and 'paper inflation' in the Fractals literature. *Science and Engineering Ethics*, **2006**, 12, 543-54	3.1	9
50	Rayleigh scattering in multilayered structures of porous silicon. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2005**, 2, 3544-3547		9
49	Non-linear model for absorption in SiO2 optical fibres: Transport of concentrated solar energy. *Solar Energy Materials and Solar Cells*, **2000**, 64, 209-224	6.4	9
48	Classical field theory and stochastic properties of hyperbolic equations of dissipative processes. *Physica A: Statistical Mechanics and Its Applications*, **1999**, 268, 482-498	3.3	9
47	Nonequilibrium variational principle for the time evolution of an ionized gas. *Physical Review E*, **1993**, 47, 178-183	2.4	9
46	A Generalization of the Richards Equation Within Extended Irreversible Thermodynamics. *Water Resources Research*, **1991**, 27, 2141-2142	5.4	9
45	Improved method for estimating static formation temperatures in geothermal and petroleum wells. *Geothermics*, **2015**, 57, 73-83	4.3	8
44	The importance of mean time in power resource assessment for small wind turbine applications. *Energy for Sustainable Development*, **2016**, 30, 32-38	5.4	8

43	Analysis about sampling, uncertainties and selection of a reliable probabilistic model of wind speed data used on resource assessment. *Renewable Energy*, **2013**, 50, 244-252	8.1	8
42	Effective conductivity of chemically deposited ZnO thin films. *Thin Solid Films*, **1997**, 293, 320-326	2.2	8
41	Macromolecule mass spectrometry: citation mining of user documents. *Journal of the American Society for Mass Spectrometry*, **2004**, 15, 281-7	3.5	8
40	Nonlinear Heat Waves In Extended Irreversible Thermodynamics. *Journal of Non-Equilibrium Thermodynamics*, **1995**, 20,	3.8	8
39	Transverse component of the electrical conductivity of porous silicon □. *Solid State Communications*, **1994**, 90, 411-415	1.6	7
38	Staggered Pad□wavelength distribution for multi-Bragg photonic mirrors. *Solar Energy Materials and Solar Cells*, **2015**, 141, 315-321	6.4	6
37	Optimal behavior of viscoelastic flow at resonant frequencies. *Physical Review E*, **2004**, 70, 056302	2.4	6
36	Viscoelastic fingering with a pulsed pressure signal. *Journal of Physics Condensed Matter*, **2004**, 16, S2055-S2060	1.8	6
35	Two effective temperatures in traffic flow models: analogies with granular flow. *Physica A: Statistical Mechanics and Its Applications*, **2002**, 307, 527-547	3.3	6
34	The bifoil photodyne: a photonic crystal oscillator. *Scientific Reports*, **2014**, 4, 3705	4.9	5
33	Role of an Oxidant Mixture as Surface Modifier of Porous Silicon Microstructures Evaluated by Spectroscopic Ellipsometry. *Scientific Reports*, **2016**, 6, 24798	4.9	5
32	Path integral approach to fluctuations in relativistic transport. *Physica A: Statistical Mechanics and Its Applications*, **1998**, 253, 290-300	3.3	5
31	Light transmission in quasiperiodic multilayers of porous silicon. *Journal of Non-Crystalline Solids*, **2003**, 329, 140-143	3.9	5
30	Heat transfer in photonic mirrors. *Journal of Materials Science: Materials in Electronics*, **2014**, 25, 4348-4355	2.1	4
29	Thermodynamic analysis of a solar coffee maker. *Energy Conversion and Management*, **2009**, 50, 2407-2412	2.6	4
28	Effect of the electric field on the luminescence of self-supporting porous silicon. *Physica Status Solidi A*, **2003**, 197, 345-349		4
27	Optical properties of charged inclusions. *Solid State Communications*, **2001**, 117, 555-559	1.6	4
26	Consequences of a generalized Ohm's law for magnetic transport in conducting media. *Journal Physics D: Applied Physics*, **1999**, 32, 639-643	3	4

25	The Non-Equilibrium Thermodynamics of the Soil Water System: A Variational Approach. *Journal of Non-Equilibrium Thermodynamics*, **1992**, 17,	3.8	4
24	Photon losses in porous silicon microcavities. *Physica Status Solidi A*, **2005**, 202, 2626-2632		3
23	Effective Medium Correlations for Experimental Absorption Data. *Physica Status Solidi A*, **2000**, 182, 291-295		3
22	On the Criteria for Deriving Approximations of Different Orders in Extended Irreversible Thermodynamics. *Journal of Non-Equilibrium Thermodynamics*, **1990**, 15,	3.8	3
21	Network characterization of the Entangled Model for sustainability indicators. Analysis of the network properties for scenarios. *PLoS ONE*, **2018**, 13, e0208718	3.7	3
20	Diffusion of Charged Species in Liquids. *Scientific Reports*, **2016**, 6, 35211	4.9	2
19	Ab initio simulations of p-type porous silicon nanostructures. *Journal of Nanostructure in Chemistry*, **2013**, 3, 1	7.6	2
18	Ab initio simulation of p-type silicon crystals. *Solid State Communications*, **2012**, 152, 1619-1624	1.6	2
17	Influence of Nonlinear Local Properties on Effective Transport. *Transport in Porous Media*, **1998**, 31, 89-108	3.1	2
16	The impact of physics research. *Physics World*, **2001**, 14, 47-52	0.5	2
15	Effective conductivity of porous silicon: A theoretical approach. *Physica A: Statistical Mechanics and Its Applications*, **1994**, 207, 163-167	3.3	2
14	The Influence of the External Signal Modulation Waveform and Frequency on the Performance of a Photonic Forced Oscillator. *Materials*, **2018**, 11,	3.5	1
13	Thermographic visualization of a flow instability in an electromagnetically driven electrolyte layer. *Experimental Thermal and Fluid Science*, **2019**, 109, 109882	3	1
12	Solar Energy Research in Ibero-America, a Citation Mining Approach. *Energy Procedia*, **2014**, 57, 930-939	2.3	1
11	Chemical modification of porous silicon mirror for biosensing applications **2007**,		1
10	Photonic Quasiperiodic Multilayers of Porous Silicon. *Materials Research Society Symposia Proceedings*, **2003**, 797, 140		1
9	Reversible charging effects on optical properties of porous silicon. *Solid State Communications*, **2001**, 120, 21-24	1.6	1
8	Dynamic effective conductivity of porous silicon. *Journal of Non-Crystalline Solids*, **1995**, 182, 206-211	3.9	1

7	Optical and thermal performance of a toroidal compound parabolic concentrator. *Applied Optics*, **2021**, 60, 2213-2221	1.7	1
6	Quantum mechanics for non-inertial reference frames. *European Journal of Physics*, **2021**, 42, 045405	0.8	1
5	Optical and thermal properties of edible coatings for application in solar drying. *Scientific Reports*, **2021**, 11, 10051	4.9	1
4	Applied physics in Mexico: mining the past to predict the future. *Scientometrics*, **2020**, 125, 187-212	3	0
3	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	
2	Morphology Study of a Hybrid Structure Based on Porous Silicon and Polypyrrole. *Materials Research Society Symposia Proceedings*, **2006**, 939, 1		
1	Temperature distribution inside a porous silicon photonic mirror. *Journal Physics D: Applied Physics*, **2022**, 55, 065101	3	