IvÃ¡n SantamarÃ-a-Holek

List of Publications by Year
in descending order

69 papers	797 citations	623734 14 h-index	580821 25 g-index
71 all docs	71 docs citations	71 times ranked	692 citing authors

#	Article	IF	Citations
1	Size and surface-energy dependence of the adsorption/desorption equilibrium in ethanol electro-oxidation by Pd-nanoparticles. Theory and experiment. RSC Advances, 2022, 12, 2525-2530.	3.6	1
2	Scaling Planck's law: a unified approach to the Casimir effect and radiative heat-conductance in nanogaps. Nanoscale Horizons, 2022, 7, 526-532.	8.0	3
3	Competitive Adsorption and Interplay between Methanol and Water During Electro-Oxidation on Pd-Based Electrocatalyst. Journal of the Electrochemical Society, 2022, 169, 046505.	2.9	3
4	Photocurrent oscillations in natural dyes-based DSSCs with different mordant and assistants: Their role in oscillations and color stability. Materials Chemistry and Physics, 2022, 286, 126163.	4.0	4
5	Entropic Effects of Interacting Particles Diffusing on Spherical Surfaces. Frontiers in Physics, 2021, 9, .	2.1	7
6	Electrical response of optimized DSSCâ€™s by different dye-mordant-assistant combinations: A multi-time-hierarchical theoretical approach. Results in Physics, 2021, 23, 104064.	4.1	1
7	A Theoretical Perspective of the Photochemical Potential in the Spectral Performance of Photovoltaic Cells. Entropy, 2021, 23, 579.	2.2	0
8	Entropic restrictions control the electric conductance of superprotonic ionic solids. Physical Chemistry Chemical Physics, 2020, 22, 437-445.	2.8	5
9	Eckhaus selection: The mechanism of pattern persistence in a reaction-diffusion system. Physical Review E, 2020, 102, 032214.	2.1	0
10	Possible fates of the spread of SARS-CoV-2 in the Mexican context. Royal Society Open Science, 2020, 7, 200886.	2.4	7
11	Eyring equation and fluctuationâ€“dissipation far away from equilibrium. Journal of Chemical Physics, 2020, 153, 244116.	3.0	5
12	Temperature dependence of anomalous protonic and superprotonic transport properties in mixed salts based on CsH₂PO₄. Physical Chemistry Chemical Physics, 2019, 21, 12948-12960.	2.8	12
13	Review on the Macro-Transport Processes Theory for Irregular Pores able to Perform Catalytic Reactions. Catalysts, 2019, 9, 281.	3.5	13
14	Effect of Surface Diffusion on Adsorptionâ€“Desorption and Catalytic Kinetics in Irregular Pores. II. Macro-Kinetics. Journal of Physical Chemistry C, 2017, 121, 14557-14565.	3.1	8
15	Entropy production and energy dissipation in symmetric redox supercapacitors. Physical Review E, 2017, 96, 022103.	2.1	4
16	Power conversion efficiency of non-equilibrium light absorption. AIP Advances, 2017, 7, .	1.3	3
17	Relation between the porosity and tortuosity of a membrane formed by disconnected irregular pores and the spatial diffusion coefficient of the Fick-Jacobs model. Physical Review E, 2017, 95, 052804.	2.1	17
18	The interplay between phenotypic and ontogenetic plasticities can be assessed using reaction-diffusion models. Journal of Biological Physics, 2017, 43, 247-264.	1.5	8

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19	Effect of Surface Diffusion on Adsorptionâ€“Desorption and Catalytic Kinetics in Irregular Pores. I. Local Kinetics. Journal of Physical Chemistry C, 2017, 121, 14544-14556.	3.1	10
20	Invalid Microstate Densities for Model Systems Lead to Apparent Violation of Thermodynamic Law. Entropy, 2017, 19, 314.	2.2	1
21	Effectiveness Factor and Mass Transfer Coefficient in Wedge and Funnel Pores Using a Generalized Fickâ€“Jacobs Model. Journal of Physical Chemistry C, 2016, 120, 29153-29161.	3.1	7
22	Origin of the effective mobility in non-linear active micro-rheology. Journal of Chemical Physics, 2016, 145, 134905.	3.0	6
23	Generalized Fickâ€“Jacobs Approach for Describing Adsorptionâ€“Desorption Kinetics in Irregular Pores under Nonequilibrium Conditions. Journal of Physical Chemistry C, 2016, 120, 7810-7821.	3.1	22
24	Local Quasi-equilibrium Description of Multiscale Systems. Journal of Non-Equilibrium Thermodynamics, 2016, 41, .	4.2	3
25	Unravelling a Self-healing Thermo- and Hydrodynamic Mechanism of Transient Pore's Late-stage Closing in Vesicles, and Related Soft-matter Systems, in Terms of Liaison Between Surface-tension and Bending Effects. Acta Physica Polonica B, 2016, 47, 1341.	0.8	2
26	Effect of elastic colored noise in the hopping dynamics of single molecules in stretching experiments. Physical Review E, 2015, 92, 062708.	2.1	3
27	Nonlinear irreversible thermodynamics of single-molecule experiments. Physical Review E, 2015, 91, 062714.	2.1	5
28	Effective temperatures and the breakdown of the Stokes-Einstein relation for particle suspensions. Journal of Chemical Physics, 2015, 143, 104506.	3.0	7
29	Comment on â€œA New Model for the Viscosity of Asphaltene Solutionsâ€• Canadian Journal of Chemical Engineering, 2015, 93, 1149-1150.	1.7	0
30	Dynamics and Thermodynamics of Nanoclusters. Entropy, 2015, 17, 7133-7148.	2.2	5
31	Onsagerâ€™s irreversible thermodynamics of the dynamics of transient pores in spherical lipid vesicles. European Biophysics Journal, 2015, 44, 473-481.	2.2	7
32	Mean-Square Displacement of Particles in Slightly Interconnected Polymer Networks. Journal of Physical Chemistry B, 2014, 118, 1146-1158.	2.6	30
33	Thermostatistical description of small systems in nonequilibrium conditions: Energy conversion and harvesting. Physical Review E, 2014, 89, 012144.	2.1	3
34	Some conceptual thoughts toward nanoscale oriented friction in a model of articular cartilage. Mathematical Biosciences, 2013, 244, 188-200.	1.9	28
35	Entropic effects in diffusion-adsorption processes in micropores. European Physical Journal: Special Topics, 2013, 222, 129-141.	2.6	18
36	On the origin of the phaseâ€“space diffusion limit in (dis)ordered protein aggregation. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 3155-3167.	2.6	2

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37	Carbon-Nanotube-Based Motor Driven by a Thermal Gradient. Journal of Physical Chemistry C, 2013, 117, 3109-3113.	3.1	38
38	Pattern formation from consistent dynamical closures of uniaxial nematic liquid crystals. Journal of Chemical Physics, 2012, 136, 114109.	3.0	5
39	A non-equilibrium thermodynamics model for combined adsorption and diffusion processes in micro- and nanopores. Journal of Non-Equilibrium Thermodynamics, 2012, 37, .	4.2	13
40	Biophysics of Active Vesicle Transport, an Intermediate Step That Couples Excitation and Exocytosis of Serotonin in the Neuronal Soma. PLoS ONE, 2012, 7, e45454.	2.5	12
41	Mean-Field â€œTemperatureâ€• in Far From Equilibrium Systems. Journal of Physical Chemistry B, 2011, 115, 9439-9444.	2.6	17
42	Statistical Mechanical Theory of a Closed Oscillating Universe. Foundations of Physics, 2010, 40, 267-275.	1.3	0
43	The rheology of concentrated suspensions of arbitrarily-shaped particles. Journal of Colloid and Interface Science, 2010, 346, 118-126.	9.4	76
44	On morphological selection rule of noisy character applied to model (dis)orderly protein formations. Journal of Chemical Physics, 2010, 132, 195103.	3.0	5
45	Relaxation in homogeneous and non-homogeneous polarized systems. A mesoscopic entropy approach. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1819-1828.	2.6	4
46	Mesoscopic nonequilibrium thermodynamics approach to non-Debye dielectric relaxation. Journal of Chemical Physics, 2010, 132, 084502.	3.0	7
47	Fluctuation theorems for systems under Fokker-Planck dynamics. Physical Review E, 2009, 79, 011101.	2.1	6
48	Transition to irreversibility in sheared suspensions: An analysis based on a mesoscopic entropy production. Physical Review E, 2009, 79, 031201.	2.1	8
49	Thermodynamics and dynamics of the formation of spherical lipid vesicles. Journal of Biological Physics, 2009, 35, 297-308.	1.5	18
50	Precursors of long-range order and local disorder in colloids. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1973-1977.	2.6	3
51	Protein motors induced enhanced diffusion in intracellular transport. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1515-1520.	2.6	9
52	Comment on â€œViolation of the Zeroth Law of Thermodynamics in Systems with Negative Specific Heatâ€• Physical Review Letters, 2009, 102, 138901, author reply 138902.	7.8	6
53	The rheology of hard sphere suspensions at arbitrary volume fractions: An improved differential viscosity model. Journal of Chemical Physics, 2009, 130, 044904.	3.0	106
54	The non-equilibrium work relation: Thermodynamic analysis and microscopic foundations. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 1529-1537.	2.6	3

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55	Reply to the Comment by F. Calvo et al.. Europhysics Letters, 2008, 82, 43004.	2.0	5
56	Reply to the Comment by D. Lynden-Bell and R. M. Lynden-Bell. Europhysics Letters, 2008, 82, 43002.	2.0	6
57	Critical analysis of negative heat capacity in nanoclusters. Europhysics Letters, 2007, 79, 43001.	2.0	26
58	Thermokinetic Approach of Single Particles and Clusters Involving Anomalous Diffusion under Viscoelastic Response. Journal of Physical Chemistry B, 2007, 111, 2293-2298.	2.6	33
59	Superstatistics of Brownian motion: A comparative study. Physica A: Statistical Mechanics and Its Applications, 2007, 385, 456-464.	2.6	8
60	On the Protein Crystal Formation as an Interface-Controlled Process with Prototype Ion-Channeling Effect. Journal of Biological Physics, 2007, 33, 313-329.	1.5	9
61	A nonequilibrium thermodynamic approach to generalized statistics for Brownian motion. Physica A: Statistical Mechanics and Its Applications, 2006, 366, 141-148.	2.6	2
62	Mesoscopic constitutive relations for dilute polymer solutions. Physica A: Statistical Mechanics and Its Applications, 2006, 369, 291-300.	2.6	4
63	Finite-size effects in microrheology. Journal of Chemical Physics, 2006, 125, 064907.	3.0	14
64	Generalized hydrodynamics of a dilute suspension of finite-sized particles: Dynamic viscosity. Physical Review E, 2006, 74, 051401.	2.1	0
65	Mesoscopic thermodynamics of stationary non-equilibrium states. New Journal of Physics, 2005, 7, 35-35.	2.9	13
66	Slow dynamics and local quasi-equilibriumâ€"relaxation in supercooled colloidal systems. Journal of Physics Condensed Matter, 2004, 16, S2047-S2054.	1.8	14
67	Local quasi-equilibrium description of slow relaxation systems. Journal of Chemical Physics, 2004, 120, 2818-2823.	3.0	27
68	Diffusion in stationary flow from mesoscopic nonequilibrium thermodynamics. Physical Review E, 2001, 63, 051106.	2.1	39
69	Mesoscopic Thermodynamics in the Presence of Flow. , 0, , .		0