

Marko Popovic

List of Publications by Year in descending order

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42
papers

1,288
citations

394421

19
h-index

395702

33
g-index

47
all docs

47
docs citations

47
times ranked

1110
citing authors

#	ARTICLE	IF	CITATIONS
1	Interplay of cell dynamics and epithelial tension during morphogenesis of the <i>Drosophila</i> pupal wing. <i>ELife</i> , 2015, 4, e07090.	6.0	290
2	TissueMiner: A multiscale analysis toolkit to quantify how cellular processes create tissue dynamics. <i>ELife</i> , 2016, 5, .	6.0	111
3	Cell dynamics underlying oriented growth of the <i>Drosophila</i> wing imaginal disc. <i>Development (Cambridge)</i> , 2017, 144, 4406-4421.	2.5	84
4	Thermodynamic properties of microorganisms: determination and analysis of enthalpy, entropy, and Gibbs free energy of biomass, cells and colonies of 32 microorganism species. <i>Heliyon</i> , 2019, 5, e01950.	3.2	74
5	Triangles bridge the scales: Quantifying cellular contributions to tissue deformation. <i>Physical Review E</i> , 2017, 95, 032401.	2.1	58
6	Elastoplastic description of sudden failure in athermal amorphous materials during quasistatic loading. <i>Physical Review E</i> , 2018, 98, .	2.1	58
7	A thermodynamic insight into viral infections: do viruses in a lytic cycle hijack cell metabolism due to their low Gibbs energy?. <i>Heliyon</i> , 2020, 6, e03933.	3.2	41
8	Thermodynamic insight into viral infections 2: empirical formulas, molecular compositions and thermodynamic properties of SARS, MERS and SARS-CoV-2 (COVID-19) viruses. <i>Heliyon</i> , 2020, 6, e04943.	3.2	40
9	Active dynamics of tissue shear flow. <i>New Journal of Physics</i> , 2017, 19, 033006.	2.9	39
10	Self-organized patterning of cell morphology via mechanosensitive feedback. <i>ELife</i> , 2021, 10, .	6.0	31
11	Thermodynamic properties of human tissues. <i>Thermal Science</i> , 2020, 24, 4115-4133.	1.1	26
12	Atom counting method for determining elemental composition of viruses and its applications in biothermodynamics and environmental science. <i>Computational Biology and Chemistry</i> , 2022, 96, 107621.	2.3	26
13	Lattice-gas Poisson-Boltzmann approach for sterically asymmetric electrolytes. <i>Physical Review E</i> , 2013, 88, 022302.	2.1	24
14	Theory for the density of interacting quasilocalized modes in amorphous solids. <i>Physical Review E</i> , 2019, 99, 023003.	2.1	24
15	Coinfection and Interference Phenomena Are the Results of Multiple Thermodynamic Competitive Interactions. <i>Microorganisms</i> , 2021, 9, 2060.	3.6	23
16	Laws of evolution parallel the laws of thermodynamics. <i>Journal of Chemical Thermodynamics</i> , 2018, 124, 141-148.	2.0	22
17	How collective asperity detachments nucleate slip at frictional interfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 23977-23983.	7.1	22
18	Inferring the flow properties of epithelial tissues from their geometry. <i>New Journal of Physics</i> , 2021, 23, 033004.	2.9	21

#	ARTICLE	IF	CITATIONS
19	Strain wars 2: Binding constants, enthalpies, entropies, Gibbs energies and rates of binding of SARS-CoV-2 variants. <i>Virology</i> , 2022, 570, 35-44.	2.4	21
20	Living organisms from Prigogine's perspective: an opportunity to introduce students to biological entropy balance. <i>Journal of Biological Education</i> , 2018, 52, 294-300.	1.5	20
21	Geometric Origin of Scaling in Large Traffic Networks. <i>Physical Review Letters</i> , 2012, 109, 208701.	7.8	19
22	Strain Wars: Competitive interactions between SARS-CoV-2 strains are explained by Gibbs energy of antigen-receptor binding. <i>Microbial Risk Analysis</i> , 2022, 21, 100202.	2.3	19
23	Strain wars 3: Differences in infectivity and pathogenicity between Delta and Omicron strains of SARS-CoV-2 can be explained by thermodynamic and kinetic parameters of binding and growth. <i>Microbial Risk Analysis</i> , 2022, 22, 100217.	2.3	19
24	Left-right symmetry of zebrafish embryos requires somite surface tension. <i>Nature</i> , 2022, 605, 516-521.	27.8	19
25	Thermal origin of quasilocalized excitations in glasses. <i>Physical Review E</i> , 2020, 102, 062110.	2.1	17
26	Phase equilibrium data for the hydrogen sulphide + methane system at temperatures from 186 to 313 K and pressures up to about 14 MPa. <i>Fluid Phase Equilibria</i> , 2014, 383, 94-99.	2.5	16
27	Entropy change of open thermodynamic systems in self-organizing processes. <i>Thermal Science</i> , 2014, 18, 1425-1432.	1.1	15
28	Comparative study of entropy and information change in closed and open thermodynamic systems. <i>Thermochimica Acta</i> , 2014, 598, 77-81.	2.7	13
29	Thermodynamics of hydrolysis of cellulose to glucose from 0 to 100°C: Cellulosic biofuel applications and climate change implications. <i>Journal of Chemical Thermodynamics</i> , 2019, 128, 244-250.	2.0	13
30	Elemental composition, heat capacity from 2 to 300 K and derived thermodynamic functions of 5 microorganism species. <i>Journal of Biotechnology</i> , 2021, 331, 99-107.	3.8	13
31	Standard Thermodynamic Properties, Biosynthesis Rates, and the Driving Force of Growth of Five Agricultural Plants. <i>Frontiers in Plant Science</i> , 2021, 12, 671868.	3.6	13
32	Research in entropy wonderland: A review of the entropy concept. <i>Thermal Science</i> , 2018, 22, 1163-1178.	1.1	11
33	Quantifying oxygen vacancies in neodymium and samarium doped ceria from heat capacity measurements. <i>Acta Materialia</i> , 2020, 188, 740-744.	7.9	9
34	Thermally activated flow in models of amorphous solids. <i>Physical Review E</i> , 2021, 104, 025010.	2.1	9
35	Extraction of Temporal Networks from Term Co-Occurrences in Online Textual Sources. <i>PLoS ONE</i> , 2014, 9, e99515.	2.5	7
36	Comment on: "A critical review on heat and mass transfer modelling of viral infection and virion evolution: The case of SARS-COV2". <i>Thermal Science</i> , 2021, 25, 4823-4825.	1.1	7

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37	Standard Thermodynamic Properties, Biosynthesis Rates, and the Driving Force of Growth of Five Agricultural Plants. <i>Frontiers in Plant Science</i> , 2021, 12, 671868.	3.6	2
38	There are two twin shadows, but einstein is one. <i>Thermal Science</i> , 2012, 16, 1-6.	1.1	1
39	Heat capacities and thermodynamic functions of neodymia and samaria doped ceria. <i>Journal of Chemical Thermodynamics</i> , 2021, 158, 106454.	2.0	1
40	Equation of state in form which relates mol fraction and molarity of two (or more) component thermodynamic system consisted of ideal gases, and it's applications. <i>Thermal Science</i> , 2010, 14, 859-863.	1.1	1
41	Are Shannon entropy and Residual entropy synonyms? . , 0, , .		1
42	Out Classroom Installations for Learning Physics: Learning Environment. , 2010, , .		0