

Efstathios E Michaelides

List of Publications by Year in descending order

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56
papers

2,481
citations

304743

22
h-index

223800

46
g-index

59
all docs

59
docs citations

59
times ranked

2510
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of recent advances in thermophysical properties at the nanoscale: From solid state to colloids. <i>Physics Reports</i> , 2020, 843, 1-81.	25.6	344
2	Energy storage needs for the substitution of fossil fuel power plants with renewables. <i>Renewable Energy</i> , 2020, 145, 951-962.	8.9	186
3	Hydrodynamic Force and Heat/Mass Transfer From Particles, Bubbles, and Drops—The Freeman Scholar Lecture. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2003, 125, 209-238.	1.5	175
4	Heat transfer in particulate flows with Direct Numerical Simulation (DNS). <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 777-786.	4.8	140
5	Brownian movement and thermophoresis of nanoparticles in liquids. <i>International Journal of Heat and Mass Transfer</i> , 2015, 81, 179-187.	4.8	136
6	Study of Arrhenius activation energy on the thermo-bioconvection nanofluid flow over a Riga plate. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 2029-2038.	3.6	104
7	Hybrid nanofluid flow towards an elastic surface with tantalum and nickel nanoparticles, under the influence of an induced magnetic field. <i>European Physical Journal: Special Topics</i> , 2022, 231, 521-533.	2.6	104
8	Interparticle forces and lift on a particle attached to a solid boundary in suspension flow. <i>Physics of Fluids</i> , 2002, 14, 49-60.	4.0	103
9	Substitution of coal power plants with renewable energy sources – Shift of the power demand and energy storage. <i>Energy Conversion and Management</i> , 2018, 164, 27-35.	9.2	91
10	Heat transfer from a rigid sphere in a nonuniform flow and temperature field. <i>International Journal of Heat and Mass Transfer</i> , 1994, 37, 2069-2076.	4.8	89
11	Transport properties of nanofluids. A critical review. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2013, 38, 1-79.	4.2	82
12	Transport processes of water and protons through micropores. <i>AIChE Journal</i> , 1998, 44, 35-47.	3.6	62
13	Alternative Energy Sources. <i>Green Energy and Technology</i> , 2012, , .	0.6	61
14	Future directions and cycles for electricity production from geothermal resources. <i>Energy Conversion and Management</i> , 2016, 107, 3-9.	9.2	59
15	Heat transfer in particulate flows. <i>International Journal of Heat and Mass Transfer</i> , 1986, 29, 265-273.	4.8	46
16	Electro-magnetohydrodynamic flow and heat transfer of a third-grade fluid using a Darcy-Brinkman-Forchheimer model. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021, 31, 2623-2639.	2.8	44
17	Thermodynamics and energy usage of electric vehicles. <i>Energy Conversion and Management</i> , 2020, 203, 112246.	9.2	43
18	Kinetic theory and molecular dynamics simulations of microscopic flows. <i>Physics of Fluids</i> , 1997, 9, 3915-3925.	4.0	40

#	ARTICLE	IF	CITATIONS
19	Nanofluidics. , 2014, , .		35
20	Grid-independent residential buildings with renewable energy sources. Energy, 2018, 148, 448-460.	8.8	32
21	Equilibrium position for a particle in a horizontal shear flow. International Journal of Multiphase Flow, 2003, 29, 943-957.	3.4	29
22	Unsteady heat and mass transfer from a spheroid. AIChE Journal, 1997, 43, 609-614.	3.6	28
23	Motion of a permeable sphere at finite but small Reynolds numbers. Physics of Fluids, 1998, 10, 1375-1383.	4.0	28
24	Impact of nuclear energy on fossil fuel substitution. Nuclear Engineering and Design, 2020, 366, 110742.	1.7	23
25	Stability analysis on the kerosene nanofluid flow with hybrid zinc/aluminum-oxide (ZnO-Al ₂ O ₃) nanoparticles under Lorentz force. International Journal of Numerical Methods for Heat and Fluid Flow, 2022, 32, 740-760.	2.8	23
26	Oxytactic Microorganisms and Thermo-Bioconvection Nanofluid Flow Over a Porous Riga Plate with Darcy-Brinkman-Forchheimer Medium. Journal of Non-Equilibrium Thermodynamics, 2020, 45, 257-268.	4.2	22
27	Wall Effects on the Brownian Movement, Thermophoresis, and Deposition of Nanoparticles in Liquids. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	1.5	21
28	A Numerical Simulation of the Boycott Effect. Chemical Engineering Communications, 2005, 192, 532-549.	2.6	17
29	Hybrid (Au-TiO ₂) nanofluid flow over a thin needle with magnetic field and thermal radiation: dual solutions and stability analysis. Microfluidics and Nanofluidics, 2022, 26, 1.	2.2	17
30	Energy and thermal storage in clusters of grid-independent buildings. Energy, 2020, 190, 116440.	8.8	16
31	Heat transfer from a nano-sphere with temperature and velocity discontinuities at the interface. International Journal of Heat and Mass Transfer, 2012, 55, 6491-6498.	4.8	15
32	Thermodynamic analysis and power requirements of CO ₂ capture, transportation, and storage in the ocean. Energy, 2021, 230, 120804.	8.8	15
33	A New Model for the Lifetime of Fossil Fuel Resources. Natural Resources Research, 2017, 26, 161-175.	4.7	13
34	Effect of the history term on the transient energy equation for a sphere. International Journal of Heat and Mass Transfer, 2003, 46, 1575-1586.	4.8	12
35	Primary Energy Use and Environmental Effects of Electric Vehicles. World Electric Vehicle Journal, 2021, 12, 138.	3.0	12
36	Thermodynamics, Energy Dissipation, and Figures of Merit of Energy Storage Systems—A Critical Review. Energies, 2021, 14, 6121.	3.1	11

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37	Mixed Convection Flow over an Elastic, Porous Surface with Viscous Dissipation: A Robust Spectral Computational Approach. <i>Fractal and Fractional</i> , 2022, 6, 263.	3.3	11
38	Entropy production and optimization of geothermal power plants. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2012, 37, .	4.2	10
39	Nanoparticle diffusivity in narrow cylindrical pores. <i>International Journal of Heat and Mass Transfer</i> , 2017, 114, 607-612.	4.8	9
40	Fluid-Particle Interactions and Resuspension in Simple Shear Flow. <i>Journal of Hydraulic Engineering</i> , 2003, 129, 985-994.	1.5	6
41	A Geothermal-Solar Hybrid Power Plant with Thermal Energy Storage. <i>Energies</i> , 2020, 13, 1018.	3.1	6
42	Calculation of Long-Range Interactions in Molecular Dynamics and Monte Carlo Simulations. <i>Journal of Physical Chemistry A</i> , 1997, 101, 4322-4331.	2.5	5
43	Thermodynamic Properties. , 2014, , 91-115.		5
44	Microgrid for a Cluster of Grid Independent Buildings Powered by Solar and Wind Energy. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9214.	2.5	4
45	Variation of the Expansion Coefficient of Nanofluids With Temperature: A Correction for Conductivity Data. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2012, 3, .	0.8	3
46	Particles deposition at horizontal flat plate in turbulent particulate flow. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 1-12.	1.7	3
47	Transport of Dissolved Contaminants within a Stream Bed with Bedforms. , 2000, , 1.		2
48	Wall Effects on the Flow Dynamics of a Rigid Sphere in Motion. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2021, 143, .	1.5	2
49	Hindered electrophoresis of nanoparticles in narrow pores. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 1363-1371.	3.6	1
50	Exergy Consumption and Conservation. , 2021, , 147-200.		0
51	Optimization and Exergoeconomics. , 2021, , 273-295.		0
52	Closure to "Discussion of "The Impact of the Model of the Environment in Exergy Analyses," (2000,) Tj ETQq0 0 0 rgBT / <i>Transactions of the ASME</i> , 2000, 122, 248-248.	2.3	0
53	Convection and Boiling. , 2014, , 227-277.		0
54	Fundamentals of Nanoparticle Flow and Heat Transfer. , 2014, , 1-45.		0

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55	Thermal Conductivity. , 2014, , 163-225.		0
56	Thermal Storage for District Coolingâ€™Implications for Renewable Energy Transition. Energies, 2021, 14, 7317.	3.1	0