

Theodoros E Karakasidis

List of Publications by Year in descending order

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105
papers

2,067
citations

236912

25
h-index

276858

41
g-index

106
all docs

106
docs citations

106
times ranked

1446
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of fuzzy clustering technique and matrices to classify amino acids and its impact to Chou's pseudo amino acid composition. <i>Journal of Theoretical Biology</i> , 2009, 257, 17-26.	1.7	204
2	Transport properties of liquid argon in krypton nanochannels: Anisotropy and non-homogeneity introduced by the solid walls. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 735-743.	4.8	115
3	Effects of wall roughness on flow in nanochannels. <i>Physical Review E</i> , 2009, 79, 026305.	2.1	83
4	Multiscale modeling in nanomaterials science. <i>Materials Science and Engineering C</i> , 2007, 27, 1082-1089.	7.3	75
5	The application of complex network time series analysis in turbulent heated jets. <i>Chaos</i> , 2014, 24, 024408.	2.5	70
6	Effect of wall roughness on shear viscosity and diffusion in nanochannels. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 3839-3846.	4.8	60
7	A Short Survey on Genetic Sequences, Chou's Pseudo Amino Acid Composition and its Combination with Fuzzy Set Theory. <i>Open Bioinformatics Journal</i> , 2013, 7, 41-48.	1.0	57
8	Surface wettability effects on flow in rough wall nanochannels. <i>Microfluidics and Nanofluidics</i> , 2012, 12, 25-31.	2.2	55
9	Grain-boundary diffusion of cation vacancies in nickel oxide: a molecular-dynamics study. <i>Physical Review B</i> , 1997, 55, 13853-13864.	3.2	54
10	Unified description of size effects of transport properties of liquids flowing in nanochannels. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 5087-5092.	4.8	49
11	Friction factor in nanochannel flows. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1.	2.2	47
12	Micromixing Efficiency of Particles in Heavy Metal Removal Processes under Various Inlet Conditions. <i>Water (Switzerland)</i> , 2019, 11, 1135.	2.7	42
13	On the magnetic aggregation of Fe ₃ O ₄ nanoparticles. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 198, 105778.	4.7	40
14	On the Julia set of the perturbed Mandelbrot map. <i>Chaos, Solitons and Fractals</i> , 2000, 11, 2067-2073.	5.1	36
15	On the Julia sets of a noise-perturbed Mandelbrot map. <i>Chaos, Solitons and Fractals</i> , 2002, 13, 245-252.	5.1	35
16	Darcy-Weisbach friction factor at the nanoscale: From atomistic calculations to continuum models. <i>Physics of Fluids</i> , 2017, 29, .	4.0	34
17	On perturbations of the Mandelbrot map. <i>Chaos, Solitons and Fractals</i> , 2000, 11, 1131-1136.	5.1	33
18	Dissipative Particle Dynamics investigation of parameters affecting planar nanochannel flows. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 1574-1579.	3.5	33

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19	Parameters Affecting Slip Length at the Nanoscale. <i>Journal of Computational and Theoretical Nanoscience</i> , 2013, 10, 648-650.	0.4	33
20	Heavy Metal Adsorption Using Magnetic Nanoparticles for Water Purification: A Critical Review. <i>Materials</i> , 2021, 14, 7500.	2.9	33
21	Mesoscopic simulation of fluid flow in periodically grooved microchannels. <i>Computers and Fluids</i> , 2013, 74, 91-101.	2.5	32
22	A comment on a rigid-ion potential for UO ₂ . <i>Journal of Physics Condensed Matter</i> , 1994, 6, 2965-2969.	1.8	29
23	A quasi-continuum multi-scale theory for self-diffusion and fluid ordering in nanochannel flows. <i>Microfluidics and Nanofluidics</i> , 2014, 17, 1011-1023.	2.2	27
24	Current Trends in Fluid Research in the Era of Artificial Intelligence: A Review. <i>Fluids</i> , 2022, 7, 116.	1.7	27
25	Dynamics and causalities of atmospheric and oceanic data identified by complex networks and Granger causality analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 495, 436-453.	2.6	26
26	Fuzzy polynucleotide spaces and metrics. <i>Bulletin of Mathematical Biology</i> , 2006, 68, 703-725.	1.9	25
27	A study of entropy/clarity of genetic sequences using metric spaces and fuzzy sets. <i>Journal of Theoretical Biology</i> , 2010, 267, 95-105.	1.7	25
28	Numerical study of magnetic particles mixing in waste water under an external magnetic field. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2020, 69, 266-275.	1.4	25
29	An Effect of Radiation and MHD Newtonian Fluid over a Stretching/Shrinking Sheet with CNTs and Mass Transpiration. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5466.	2.5	25
30	RECURRENCE QUANTIFICATION ANALYSIS OF TEMPERATURE FLUCTUATIONS IN A HORIZONTAL ROUND HEATED TURBULENT JET. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2009, 19, 2487-2498.	1.7	24
31	Detection of low-dimensional chaos in wind time series. <i>Chaos, Solitons and Fractals</i> , 2009, 41, 1723-1732.	5.1	24
32	Molecular dynamics simulations of ion separation in nano-channel water flows using an electric field. <i>Molecular Simulation</i> , 2019, 45, 1395-1402.	2.0	24
33	Pattern identification for wind power forecasting via complex network and recurrence plot time series analysis. <i>Energy Policy</i> , 2019, 133, 110934.	8.8	23
34	A dissipative particle dynamics study of flow in periodically grooved nanochannels. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 68, 1156-1172.	1.6	22
35	Molecular dynamics simulation on flows in nano-ribbed and nano-grooved channels. <i>Heat and Mass Transfer</i> , 2016, 52, 153-162.	2.1	21
36	Structure and dynamics of NiO(001) and Ni/NiO(001) surfaces by molecular dynamics simulation. <i>Applied Surface Science</i> , 2000, 162-163, 233-238.	6.1	20

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37	Cation vacancy diffusion on the NiO(001) surface by molecular dynamics simulations. Surface Science, 1999, 436, 193-201.	1.9	18
38	On a topological closeness of perturbed Julia sets. Applied Mathematics and Computation, 2010, 217, 2883-2890.	2.2	18
39	Nanoscale slip length prediction with machine learning tools. Scientific Reports, 2021, 11, 12520.	3.3	18
40	Fluid Flow at the Nanoscale: How Fluid Properties Deviate from the Bulk. Nanoscience and Nanotechnology Letters, 2013, 5, 457-460.	0.4	18
41	System dynamics revealed by recurrence quantification analysis: Application to molecular dynamics simulations. Physical Review E, 2007, 76, 021120.	2.1	17
42	How wall properties control diffusion in grooved nanochannels: a molecular dynamics study. Heat and Mass Transfer, 2013, 49, 1081-1088.	2.1	17
43	On a topological closeness of perturbed Mandelbrot sets. Applied Mathematics and Computation, 2010, 215, 3674-3683.	2.2	16
44	A combined clustering/symbolic regression framework for fluid property prediction. Physics of Fluids, 2022, 34, .	4.0	15
45	Machine learning symbolic equations for diffusion with physics-based descriptions. AIP Advances, 2022, 12, .	1.3	14
46	Oxygen adatom diffusion on the NiO(001) surface by molecular dynamics simulation. Physica B: Condensed Matter, 2002, 318, 211-216.	2.7	13
47	A computational tool for the estimation of the optimum gradient magnetic field for the magnetic driving of the spherical particles in the process of cleaning water. , 0, 99, 27-33.		13
48	On probabilistic Mandelbrot maps. Chaos, Solitons and Fractals, 2009, 42, 1577-1583.	5.1	12
49	ON A CLOSENESS OF THE JULIA SETS OF NOISE-PERTURBED COMPLEX QUADRATIC MAPS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250221.	1.7	12
50	Virtual and remote labs in higher education distance learning of physical and engineering sciences. , 2013, , .		12
51	Application of deep learning and chaos theory for load forecasting in Greece. Neural Computing and Applications, 2021, 33, 16713-16731.	5.6	12
52	Cation adatom diffusion on the NiO(001) surface by molecular dynamics simulation. Surface Science, 2001, 486, 46-54.	1.9	11
53	Detection of traffic incidents using nonlinear time series analysis. Chaos, 2018, 28, 063108.	2.5	11
54	The Impact of Reduced Gravity on Oscillatory Mixed Convective Heat Transfer around a Non-Conducting Heated Circular Cylinder. Applied Sciences (Switzerland), 2022, 12, 5081.	2.5	11

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55	Molecular dynamics simulation of the atomic structure of a NiO tilt grain boundary at high temperature. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2000, 8, 117-132.	2.0	10
56	Nonlinear time series analysis and clustering for jet axis identification in vertical turbulent heated jets. <i>Physical Review E</i> , 2014, 89, 032913.	2.1	10
57	Machine Learning Techniques for Fluid Flows at the Nanoscale. <i>Fluids</i> , 2021, 6, 96.	1.7	10
58	Noise perturbation of the thermostat in constant temperature molecular dynamics simulations. <i>Chaos, Solitons and Fractals</i> , 2004, 20, 1165-1172.	5.1	9
59	On a topological criterion to select a recurrence threshold. <i>Chaos</i> , 2020, 30, 013124.	2.5	9
60	STATISTICAL EVALUATION OF PCDD/F EMISSION DATA DURING SOLID WASTE COMBUSTION BY FUZZY CLUSTERING TECHNIQUES. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2001, 36, 153-161.	1.7	8
61	Mixing of Particles in Micromixers under Different Angles and Velocities of the Incoming Water. <i>Proceedings (mdpi)</i> , 2018, 2, 577.	0.2	8
62	Effects of channel size, wall wettability, and electric field strength on ion removal from water in nanochannels. <i>Scientific Reports</i> , 2022, 12, 641.	3.3	8
63	On numerical approximations of the area of the generalized Mandelbrot sets. <i>Applied Mathematics and Computation</i> , 2013, 219, 10974-10982.	2.2	7
64	On a numerical approximation of the boundary structure and of the area of the Mandelbrot set. <i>Nonlinear Dynamics</i> , 2015, 80, 929-935.	5.2	7
65	An Optimized Method for 3D Magnetic Navigation of Nanoparticles inside Human Arteries. <i>Fluids</i> , 2021, 6, 97.	1.7	7
66	Analysis of magnetohydrodynamic channel flow through complex network analysis. <i>Chaos</i> , 2021, 31, 043123.	2.5	7
67	Vibrational properties of a $\Sigma 5(111)$ NiO grain boundary: a local analysis by molecular dynamics simulation. <i>Surface Science</i> , 2002, 515, 1-12.	1.9	6
68	The size effect of crystalline inclusions on the fracture modes in glass-ceramic materials. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 266209.	1.8	6
69	Elastic properties of nanostructured materials with layered grain boundary structure. <i>Surface Science</i> , 2007, 601, 3521-3527.	1.9	6
70	Molecular Dynamics Simulations of Ion Drift in Nanochannel Water Flow. <i>Nanomaterials</i> , 2020, 10, 2373.	4.1	6
71	Investigation of speed and trajectory of motorcycle riders at curved road sections of two-lane rural roads under diverse lighting conditions. <i>Journal of Safety Research</i> , 2021, 78, 138-145.	3.6	6
72	Partitioning elements of the Periodic Table via fuzzy clustering technique. <i>Soft Computing</i> , 2004, 8, 231-236.	3.6	5

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73	Two-regime dynamical behaviour in Lennard-Jones systems: Spectral and rescaled range analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 333, 225-240.	2.6	5
74	Vacancy effect on the elastic constants of layer-structured nanomaterials. <i>Theoretical and Applied Fracture Mechanics</i> , 2009, 51, 195-201.	4.7	5
75	Fuzzy regression analysis: An application on tensile strength of materials and hardness scales. <i>Journal of Intelligent and Fuzzy Systems</i> , 2012, 23, 177-186.	1.4	5
76	A FRACTIONAL BROWNIAN MOTION MODEL FOR TIME SERIES PRODUCED BY CONSTANT TEMPERATURE MOLECULAR DYNAMICS SIMULATIONS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2002, 12, 377-388.	1.7	4
77	Ni ³⁺ adsorbate dynamics on a NiO(001) surface. <i>Surface Science</i> , 2006, 600, 1952-1964.	1.9	4
78	Influence of nano-inclusions on grain boundaries on crack propagation modes in materials. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 490-493.	3.5	4
79	A new methodology for approaching motorcycle riders' behavior at curved road sections. <i>European Transport Research Review</i> , 2014, 6, 303-314.	4.8	4
80	Spatiotemporal Analysis of Seawatch Buoy Meteorological Observations. <i>Environmental Processes</i> , 2015, 2, 23-39.	3.5	4
81	Exploiting the Knowledge of Dynamics, Correlations and Causalities in the Performance of Different Road Paths for Enhancing Urban Transport Management. <i>Lecture Notes in Business Information Processing</i> , 2019, , 28-40.	1.0	4
82	On a topological classification of recurrence plots: Application to noise perturbed molecular dynamics time series. <i>Chaos</i> , 2019, 29, 023113.	2.5	4
83	Micromixing Nanoparticles and Contaminated Water Under Different Velocities for Optimum Heavy Metal Ions Adsorption. <i>Environmental Sciences Proceedings</i> , 2020, 2, 65.	0.3	4
84	Growth of <i>Staphylococcus epidermidis</i> on the Surface of Teatcups from Milking Parlours. <i>Microorganisms</i> , 2021, 9, 852.	3.6	4
85	Variation of Transport Properties Along Nanochannels: A Study by Non-equilibrium Molecular Dynamics. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2009, , 67-78.	0.2	4
86	Multiple Sensors Data Integration for Traffic Incident Detection Using the Quadrant Scan. <i>Sensors</i> , 2022, 22, 2933.	3.8	4
87	A homogenous random fractal model for time series produced by constant energy molecular dynamics simulations. <i>Chaos, Solitons and Fractals</i> , 2003, 15, 87-98.	5.1	3
88	Study of fluid flow in grooved micro and nano-channels via dissipative particle dynamic: a tool for desalination membrane design. <i>Desalination and Water Treatment</i> , 2016, 57, 11675-11684.	1.0	3
89	Mixing of Fe ₃ O ₄ nanoparticles under electromagnetic and shear conditions for wastewater treatment applications. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2022, 71, 671-681.	1.4	3
90	Blood flow and diameter effect in the navigation process of magnetic nanocarriers inside the carotid artery. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 221, 106916.	4.7	3

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91	Backward Degree a new index for online and offline change point detection based on complex network analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 604, 127929.	2.6	3
92	Parallel short range molecular dynamics simulations on computer clusters: Performance evaluation and modeling. <i>Mathematical and Computer Modelling</i> , 2005, 42, 783-798.	2.0	2
93	Vibrational and topological properties of selected NiO surfaces. <i>Surface Science</i> , 2006, 600, 4089-4093.	1.9	2
94	Spatiotemporal Time Series Analysis Methods for the Study of Turbulent Magnetohydrodynamic Channel Flows. <i>Environmental Processes</i> , 2015, 2, 141-158.	3.5	2
95	Bubble detection in Greek Stock Market: A DS-LPPLS model approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 587, 126533.	2.6	2
96	Non-Linear Analysis of River System Dynamics Using Recurrence Quantification Analysis. <i>AppliedMath</i> , 2022, 2, 1-15.	0.6	2
97	An extension of fuzzy topological approach for comparison of genetic sequences. <i>Journal of Intelligent and Fuzzy Systems</i> , 2015, 29, 2259-2269.	1.4	1
98	Fluid structure and system dynamics in nanodevices for water desalination. <i>Desalination and Water Treatment</i> , 2016, 57, 11561-11571.	1.0	1
99	Representativeness of Taxi GPS-Enabled Travel Time Data Using Gamma Generalized Linear Model. <i>International Journal of Decision Support System Technology</i> , 2021, 13, 1-18.	0.7	1
100	Vibrational properties of a $\{111\}$ NiO grain boundary as a function of temperature: A molecular dynamics simulation. <i>Computer Physics Communications</i> , 2002, 147, 198-201.	7.5	0
101	Texts of art, science and culture: An interdisciplinary course in engineering curriculum. , 2013, , .		0
102	12th International Conference on Protection and Restoration of the Environment (PRE XII) Skiathos Island, Greece, 29 Juneâ€“3 July, 2014. <i>Desalination and Water Treatment</i> , 2016, 57, 11435-11435.	1.0	0
103	Spatio-Temporal Causal Relations at Urban Road Networks; Granger Causality Based Networks as an Insight to Urban Traffic Dynamics. <i>Lecture Notes in Networks and Systems</i> , 2022, , 791-804.	0.7	0
104	VIBRATIONAL PROPERTIES OF NiO(110) SURFACE BY MOLECULAR DYNAMICS SIMULATION. , 2003, , .		0
105	Clustering of Urban Road Paths; Identifying the Optimal Set of Linear and Nonlinear Clustering Features. <i>Advances in Intelligent Systems and Computing</i> , 2021, , 1107-1116.	0.6	0