

Mohamed R Eid

List of Publications by Year in descending order

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93
papers

3,781
citations

126907

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182427

51
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95
all docs

95
docs citations

95
times ranked

1082
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiation effect on viscous flow of a nanofluid and heat transfer over a nonlinearly stretching sheet. <i>Nanoscale Research Letters</i> , 2012, 7, 229.	5.7	180
2	Chemical reaction effect on MHD boundary-layer flow of two-phase nanofluid model over an exponentially stretching sheet with a heat generation. <i>Journal of Molecular Liquids</i> , 2016, 220, 718-725.	4.9	136
3	Numerical Analysis of the Unsteady Natural Convection MHD Couette Nanofluid Flow in the Presence of Thermal Radiation Using Single and Two-Phase Nanofluid Models for Cu-Water Nanofluids. <i>International Journal of Applied and Computational Mathematics</i> , 2018, 4, 1.	1.6	135
4	Thermal expansion optimization in solar aircraft using tangent hyperbolic hybrid nanofluid: a solar thermal application. <i>Journal of Materials Research and Technology</i> , 2021, 14, 985-1006.	5.8	135
5	Numerical treatment for Carreau nanofluid flow over a porous nonlinear stretching surface. <i>Results in Physics</i> , 2018, 8, 1185-1193.	4.1	96
6	Thermal conductivity variation and heat generation effects on magneto-hybrid nanofluid flow in a porous medium with slip condition. <i>Waves in Random and Complex Media</i> , 2022, 32, 1103-1127.	2.7	93
7	Significance of Darcy-Forchheimer Porous Medium in Nanofluid Through Carbon Nanotubes. <i>Communications in Theoretical Physics</i> , 2018, 70, 361.	2.5	87
8	Numerical study for Carreau nanofluid flow over a convectively heated nonlinear stretching surface with chemically reactive species. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 540, 123063.	2.6	85
9	Unsteady MHD heat and mass transfer of a non-Newtonian nanofluid flow of a two-phase model over a permeable stretching wall with heat generation/absorption. <i>Advanced Powder Technology</i> , 2017, 28, 3063-3073.	4.1	83
10	Comprehensive analysis of heat transfer of gold-blood nanofluid (Sisko-model) with thermal radiation. <i>Results in Physics</i> , 2017, 7, 4388-4393.	4.1	83
11	Heat transfer of squeezing unsteady nanofluid flow under the effects of an inclined magnetic field and variable thermal conductivity. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 540, 123138.	2.6	81
12	Thermal growth in solar water pump using Prandtl-Eyring hybrid nanofluid: a solar energy application. <i>Scientific Reports</i> , 2021, 11, 18704.	3.3	72
13	Physical specifications of MHD mixed convective of Ostwald-de Waele nanofluids in a vented-cavity with inner elliptic cylinder. <i>International Communications in Heat and Mass Transfer</i> , 2022, 134, 106038.	5.6	70
14	Entropy analysis of a hydromagnetic micropolar dusty carbon NTs-kerosene nanofluid with heat generation: Darcy-Forchheimer scheme. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 2419-2436.	3.6	69
15	Thermal Characterization of Coolant Maxwell Type Nanofluid Flowing in Parabolic Trough Solar Collector (PTSC) Used Inside Solar Powered Ship Application. <i>Coatings</i> , 2021, 11, 1552.	2.6	69
16	Thermal examination of renewable solar energy in parabolic trough solar collector utilizing Maxwell nanofluid: A noble case study. <i>Case Studies in Thermal Engineering</i> , 2021, 27, 101258.	5.7	59
17	Numerical Treatment of MHD Flow of Casson Nanofluid via Convectively Heated Non-Linear Extending Surface with Viscous Dissipation and Suction/Injection Effects. <i>Computers, Materials and Continua</i> , 2020, 66, 229-245.	1.9	56
18	3-D electromagnetic radiative non-Newtonian nanofluid flow with Joule heating and higher-order reactions in porous materials. <i>Scientific Reports</i> , 2020, 10, 14513.	3.3	55

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19	FEM for Blood-Based SWCNTs Flow Through a Circular Cylinder in a Porous Medium with Electromagnetic Radiation*. Communications in Theoretical Physics, 2019, 71, 1425.	2.5	52
20	Effects of NP Shapes on Non-Newtonian Bio-Nanofluid Flow in Suction/Blowing Process with Convective Condition: Sisko Model. Journal of Non-Equilibrium Thermodynamics, 2020, 45, 97-108.	4.2	52
21	Structural, DFT, optical dispersion characteristics of novel [DPPA-Zn-MR(Cl)(H ₂ O)] nanostructured thin films. Materials Chemistry and Physics, 2019, 232, 180-192.	4.0	50
22	Effect of heat generation/absorption on natural convective boundary-layer flow from a vertical cone embedded in a porous medium filled with a non-Newtonian nanofluid. International Communications in Heat and Mass Transfer, 2011, 38, 1414-1420.	5.6	49
23	Combined experimental thin films, TDDFT-DFT theoretical method, and spin effect on [PEG-H ₂ O/ZrO ₂ +MgO]h hybrid nanofluid flow with higher chemical rate. Surfaces and Interfaces, 2021, 23, 100971.	3.0	48
24	Flow and heat transfer in a porous medium saturated with a Sisko nanofluid over a nonlinearly stretching sheet with heat generation/absorption. Heat Transfer - Asian Research, 2018, 47, 54-71.	2.8	46
25	Synthesis, DFT calculations, and heat transfer performance large-surface TiO ₂ : ethylene glycol nanofluid and coolant applications. European Physical Journal Plus, 2020, 135, 1.	2.6	45
26	Two-phase permeable non-Newtonian cross-nanomaterial flow with Arrhenius energy and entropy generation: Darcy-Forchheimer model. Physica Scripta, 2020, 95, 105209.	2.5	44
27	Thermal and solutal performance of Cu/CuO nanoparticles on a non-linear radially stretching surface with heat source/sink and varying chemical reaction effects. International Communications in Heat and Mass Transfer, 2021, 129, 105710.	5.6	44
28	Comprehensive analysis on copper-iron (II, III)/oxide-engine oil Casson nanofluid flowing and thermal features in parabolic trough solar collector. Journal of Taibah University for Science, 2021, 15, 619-636.	2.5	44
29	Thermal Characteristics of 3D Nanofluid Flow over a Convectively Heated Riga Surface in a Darcy-Forchheimer Porous Material with Linear Thermal Radiation: An Optimal Analysis. Arabian Journal for Science and Engineering, 2020, 45, 9803-9814.	3.0	43
30	Structure, DFT calculations and heat transfer enhancement in [ZnO/PG+H ₂ O]C hybrid nanofluid flow as a potential solar cell coolant application in a double-tube. Journal of Materials Science: Materials in Electronics, 2020, 31, 15243-15257.	2.2	43
31	A numerical frame work of magnetically driven Powell-Eyring nanofluid using single phase model. Scientific Reports, 2021, 11, 16500.	3.3	43
32	Solar water-pump thermal analysis utilizing copper-gold/engine oil hybrid nanofluid flowing in parabolic trough solar collector: Thermal case study. Case Studies in Thermal Engineering, 2022, 30, 101756.	5.7	41
33	Structure and photoluminescence characteristics of mixed nickel-chromium oxides nanostructures. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	40
34	Combined experimental thin film, DFT-TDDFT computational study, flow and heat transfer in [PG-MoS ₂ /ZrO ₂] ^C hybrid nanofluid. Waves in Random and Complex Media, 2023, 33, 1-26.	2.7	40
35	Heat transfer analysis of MHD rotating flow of Fe ₃ O ₄ nanoparticles through a stretchable surface. Communications in Theoretical Physics, 2021, 73, 075004.	2.5	40
36	Study on heat transfer aspects of solar aircraft wings for the case of Reiner-Philippoff hybrid nanofluid past a parabolic trough: Keller box method. Physica Scripta, 2021, 96, 095220.	2.5	40

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37	A novel case study of thermal and streamline analysis in a grooved enclosure filled with (Ag-MgO/Water) hybrid nanofluid: Galerkin FEM. <i>Case Studies in Thermal Engineering</i> , 2021, 28, 101372.	5.7	40
38	Micropolar fluid past a convectively heated surface embedded with nth order chemical reaction and heat source/sink. <i>Physica Scripta</i> , 2021, 96, 104010.	2.5	39
39	nth order reactive nanoliquid through convective elongated sheet under mixed convection flow with joule heating effects. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 3853-3867.	3.6	38
40	Boundary-layer non-Newtonian flow over vertical plate in porous medium saturated with nanofluid. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2011, 32, 1577-1586.	3.6	35
41	Solar Radiation Effect on a Magneto Nanofluid Flow in a Porous Medium with Chemically Reactive Species. <i>International Journal of Chemical Reactor Engineering</i> , 2018, 16, .	1.1	35
42	On numerical and analytical solutions for mixed convection Falkner-Skan flow of nanofluids with variable thermal conductivity. <i>Waves in Random and Complex Media</i> , 2021, 31, 1550-1569.	2.7	35
43	Comparative Study on Effects of Thermal Gradient Direction on Heat Exchange between a Pure Fluid and a Nanofluid: Employing Finite Volume Method. <i>Coatings</i> , 2021, 11, 1481.	2.6	34
44	SQLM for external yield stress effect on 3D MHD nanofluid flow in a porous medium. <i>Physica Scripta</i> , 2019, 94, 105208.	2.5	33
45	Computational analysis of thermal energy distribution of electromagnetic Casson nanofluid across stretched sheet: Shape factor effectiveness of solid-particles. <i>Energy Reports</i> , 2021, 7, 7460-7477.	5.1	32
46	Heat flow saturate of Ag/MgO-water hybrid nanofluid in heated trigonal enclosure with rotate cylindrical cavity by using Galerkin finite element. <i>Scientific Reports</i> , 2022, 12, 2302.	3.3	32
47	Thermal analysis characterisation of solar-powered ship using Oldroyd hybrid nanofluids in parabolic trough solar collector: An optimal thermal application. <i>Nanotechnology Reviews</i> , 2022, 11, 2015-2037.	5.8	32
48	Influence of chemical reaction on heat and mass transfer of non-Newtonian fluid with yield stress by free convection from vertical surface in porous medium considering Soret effect. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2010, 31, 675-684.	3.6	31
49	Magnetized nanofluid flow of ferromagnetic nanoparticles from parallel stretchable rotating disk with variable viscosity and thermal conductivity. <i>Chinese Journal of Physics</i> , 2021, 74, 20-37.	3.9	31
50	Implementing renewable solar energy in presence of Maxwell nanofluid in parabolic trough solar collector: a computational study. <i>Waves in Random and Complex Media</i> , 0, , 1-32.	2.7	31
51	Hydrogen energy storage optimization in solar-HVAC using Sutterby nanofluid via Koo-Kleinstreuer and Li (KKL) correlations model: A solar thermal application. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 18877-18891.	7.1	31
52	2D mixed convection non-Darcy model with radiation effect in a nanofluid over an inclined wavy surface. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 9965-9976.	6.4	29
53	Entropy Amplified solitary phase relative probe on engine oil based hybrid nanofluid. <i>Chinese Journal of Physics</i> , 2022, 77, 1654-1681.	3.9	27
54	Influence of entropy on Brinkman-Forchheimer model of MHD hybrid nanofluid flowing in enclosure containing rotating cylinder and undulating porous stratum. <i>Scientific Reports</i> , 2021, 11, 24316.	3.3	26

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55	The flow, thermal and mass properties of Soret-Dufour model of magnetized Maxwell nanofluid flow over a shrinkage inclined surface. PLoS ONE, 2022, 17, e0267148.	2.5	26
56	High-performance nanofluid synthesis and DFT-TDDFT study of graphene nanosheets along bent surface for enhanced oil-recovery implementations. Case Studies in Thermal Engineering, 2021, 25, 100983.	5.7	25
57	Comparative Numerical Study of Thermal Features Analysis between Oldroyd-B Copper and Molybdenum Disulfide Nanoparticles in Engine-Oil-Based Nanofluids Flow. Coatings, 2021, 11, 1196.	2.6	25
58	Partial velocity slip effect on working magneto non-Newtonian nanofluids flow in solar collectors subject to change viscosity and thermal conductivity with temperature. PLoS ONE, 2021, 16, e0259881.	2.5	25
59	Dynamics of convective slippery constraints on hybrid radiative Sutterby nanofluid flow by Galerkin finite element simulation. Nanotechnology Reviews, 2022, 11, 1219-1236.	5.8	25
60	Aiding (opponent) flow of hybrid copper-aluminum oxide nanofluid towards an exponentially extending (lessening) sheet with thermal radiation and heat source (sink) impact. Journal of Petroleum Science and Engineering, 2022, 215, 110649.	4.2	25
61	Homogeneous-heterogeneous catalysis on electromagnetic radiative Prandtl fluid flow: Darcy-Forchheimer substance scheme. Surfaces and Interfaces, 2021, 24, 101119.	3.0	24
62	On 3D Prandtl nanofluid flow with higher-order chemical reaction. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 3962-3974.	2.1	22
63	Galerkin finite element inspection of thermal distribution of renewable solar energy in presence of binary nanofluid in parabolic trough solar collector. AEJ - Alexandria Engineering Journal, 2022, 61, 11063-11076.	6.4	22
64	Mathematical modeling of multiphase flows of third-grade fluid with lubrication effects through an inclined channel: analytical treatment. Journal of Dispersion Science and Technology, 2022, 43, 1555-1567.	2.4	21
65	Duan-Rach modified Adomian decomposition method (DRMA) for viscoelastic fluid flow between nonparallel plane walls. European Physical Journal Plus, 2020, 135, 1.	2.6	20
66	Increment of heat transfer by graphene-oxide and molybdenum-disulfide nanoparticles in ethylene glycol solution as working nanofluid in penetrable moveable longitudinal fin. Waves in Random and Complex Media, 0, , 1-23.	2.7	20
67	Thermal efficiency enhancement of solar aircraft by utilizing unsteady hybrid nanofluid: A single-phase optimized entropy analysis. Sustainable Energy Technologies and Assessments, 2022, 52, 101898.	2.7	20
68	A new analytical solution of longitudinal fin with variable heat generation and thermal conductivity using DRA. European Physical Journal Plus, 2020, 135, 1.	2.6	19
69	Combined theoretical and experimental DFT-TDDFT and thermal characteristics of 3-D flow in rotating tube of $[PEG_{20}+H_2O/SiO_2-Fe_3O_4]^{sup>C</sup>}$ hybrid nanofluid to enhancing oil extraction. Waves in Random and Complex Media, 0, , 1-26.		19
70	Thermal Analysis of 3D Electromagnetic Radiative Nanofluid Flow with Suction/Blowing: Darcy-Forchheimer Scheme. Micromachines, 2021, 12, 1395.	2.9	19
71	A mathematical model of blood flow in a stenosed artery with post-stenotic dilatation and a forced field. PLoS ONE, 2022, 17, e0266727.	2.5	19
72	EXOTHERMICALLY REACTING OF NON-NEWTONIAN FLUID FLOW OVER A PERMEABLE NONLINEAR STRETCHING VERTICAL SURFACE WITH HEAT AND MASS FLUXES. Computational Thermal Sciences, 2017, 9, 283-296.	0.9	18

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73	Impact of Maxwell velocity slip and Smoluchowski temperature slip on CNTs with modified Fourier theory: Reiner-Philippoff model. <i>PLoS ONE</i> , 2021, 16, e0258367.	2.5	18
74	Buoyancy force and Arrhenius energy impacts on Buongiorno electromagnetic nanofluid flow containing gyrotactic microorganism. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2022, 236, 9459-9471.	2.1	18
75	Prediction of Molecular Characteristics and Molecular Spectroscopy of Hydrochloric Acid-Doped Poly(ortho-Anthranilic Acid-co-para Nitroaniline) Thin Film. <i>Journal of Electronic Materials</i> , 2019, 48, 8107-8115.	2.2	17
76	Thermal analysis of higher-order chemical reactive viscoelastic nanofluids flow in porous media via stretching surface. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 6099-6110.	2.1	17
77	Flow and heat transport phenomenon for dynamics of Jeffrey nanofluid past stretchable sheet subject to Lorentz force and dissipation effects. <i>Scientific Reports</i> , 2021, 11, 22924.	3.3	17
78	Chemical Reactive and Viscous Dissipative Flow of Magneto Nanofluid via Natural Convection by Employing Galerkin Finite Element Technique. <i>Coatings</i> , 2022, 12, 151.	2.6	17
79	Natural convection of non-Newtonian power-law fluid over axisymmetric and two-dimensional bodies of arbitrary shape in fluid-saturated porous media. <i>Applied Mathematics and Mechanics (English)</i> Tj ETQq1 1307843146gBT /Ove		
80	Galerkin finite element study for mixed convection (TiO ₂ –SiO ₂ /water) hybrid-nanofluidic flow in a triangular aperture heated beneath. <i>Scientific Reports</i> , 2021, 11, 22905.	3.3	16
81	Numerical simulation for magnetic dipole in bioconvection flow of Jeffrey nanofluid with swimming motile microorganisms. <i>Waves in Random and Complex Media</i> , 0, , 1-18.	2.7	15
82	Numerical study of magnetic field interaction with fully developed flow in a vertical duct. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 11351-11363.	6.4	15
83	Thermal valuation and entropy inspection of second-grade nanoscale fluid flow over a stretching surface by applying Koo–Kleinstreuer–Li relation. <i>Nanotechnology Reviews</i> , 2022, 11, 2061-2077.	5.8	15
84	Numerical Case Study of Chemical Reaction Impact on MHD Micropolar Fluid Flow Past over a Vertical Riga Plate. <i>Materials</i> , 2022, 15, 4060.	2.9	14
85	Experimental characterization, TDDFT-DFT, and spin effect on [PEG/H ₂ O–ZrO ₂ /TiO ₂] hybrid nanofluid 3D flow as potential ceramic industry application. <i>International Journal of Chemical Reactor Engineering</i> , 2021, 19, 1135-1149.	1.1	13
86	New modified decomposition method (DRMA) for solving MHD viscoelastic fluid flow: comparative study. <i>International Journal of Ambient Energy</i> , 2022, 43, 3686-3694.	2.5	12
87	Entropy analysis of radiative [MgZn ₆ -Zr-Cu/EO] Casson hybrid nanofluid with variant thermal conductivity along a stretching surface: Implementing Keller box method. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2022, 236, 6501-6520.	2.1	12
88	Dynamical irreversible processes analysis of Poiseuille magneto-hybrid nanofluid flow in microchannel: A novel case study. <i>Waves in Random and Complex Media</i> , 0, , 1-23.	2.7	12
89	Analytical ADM study of time-dependent hydromagnetic flow of biofluid over a wedge. <i>Indian Journal of Physics</i> , 2021, 95, 2769-2784.	1.8	11
90	The electrical magnetohydrodynamic (MHD) and shape factor impacts in a mixture fluid suspended by hybrid nanoparticles between non-parallel plates. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2022, 236, 1134-1143.	2.5	10

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91	MHD 3D Crossflow in the Streamwise Direction Induced by Nanofluid Using Kooâ€“(Kleinstreuer and Li (KLL) Correlation. Coatings, 2021, 11, 1472.	2.6	9
92	Raising thermal efficiency of solar waterâ€“pump using Oldroydâ€“B nanofluids' flow: An optimal thermal application. Energy Science and Engineering, 2022, 10, 4286-4303.	4.0	8
93	Flow Dynamics of PTT and FENE-P Viscoelastic Fluids in Circular and Flat Ducts: An Analytical Study. Arabian Journal for Science and Engineering, 2021, 46, 2783-2792.	3.0	7