Jordan Yankov Hristov

List of Publications by Year
in descending order

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106	2,163	236925	276875
papers	citations	25	41
		h-index	g-index

110	110	110	1034
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Transient heat diffusion with a non-singular fading memory: From the Cattaneo constitutive equation with Jeffreyâ€™s Kernel to the Caputo-Fabrizio time-fractional derivative. Thermal Science, 2016, 20, 757-762.	1.1	230
2	Steady-state heat conduction in a medium with spatial non-singular fading memory: Derivation of Caputo-Fabrizio space-fractional derivative from Cattaneo concept with Jeffrey`s Kernel and analytical solutions. Thermal Science, 2017, 21, 827-839.	1.1	87
3	Fluidization of ferromagnetic particles in a magnetic field Part 1: The effect of field line orientation on bed stability. Powder Technology, 1996, 87, 59-66.	4.2	80
4	Nonlinear dynamics for local fractional Burgersâ€™ equation arising in fractal flow. Nonlinear Dynamics, 2016, 84, 3-7.	5.2	70
5	Approximate solutions to fractional subdiffusion equations. European Physical Journal: Special Topics, 2011, 193, 229-243.	2.6	68
6	Heat-balance integral to fractional (half-time) heat diffusion sub-model. Thermal Science, 2010, 14, 291-316.	1.1	59
7	Behaviour of fluidized beds of ferromagnetic particles in an axial magnetic field. Powder Technology, 1990, 61, 103-118.	4.2	58
8	Fluidization of ferromagnetic particles in a magnetic field Part 2: Field effects on preliminarily gas fluidized bed. Powder Technology, 1998, 97, 35-44.	4.2	56
9	MAGNETIC FIELD ASSISTED FLUIDIZATION â€“ A UNIFIED APPROACH Part 1. Fundamentals and relevant hydrodynamics of gas-fluidized beds (batch solids mode). Reviews in Chemical Engineering, 2002, 18, .	4.4	56
10	Response functions in linear viscoelastic constitutive equations and related fractional operators. Mathematical Modelling of Natural Phenomena, 2019, 14, 305.	2.4	54
11	Performance of a magnetically stabilized bed reactor with immobilized yeast cells. Applied Biochemistry and Biotechnology, 1996, 59, 187-198.	2.9	49
12	The heat-balance integral method by a parabolic profile with unspecified exponent: Analysis and benchmark exercises. Thermal Science, 2009, 13, 27-48.	1.1	49
13	Fluidization of beds of ferromagnetic particles in a transverse magnetic field. Powder Technology, 1990, 62, 1-11.	4.2	45
14	An overview of separation by magnetically stabilized beds: State-of-the-art and potential applications. Particuology: Science and Technology of Particles, 2007, 5, 11-18.	0.4	41
15	Magnetic field assisted fluidization â€“ a unified approach. Part 8. Mass transfer: magnetically assisted bioprocesses. Reviews in Chemical Engineering, 2010, 26, .	4.4	41
16	Linear viscoelastic responses and constitutive equations in terms of fractional operators with non-singular kernels. European Physical Journal Plus, 2019, 134, 1.	2.6	38
17	Bio-Heat Models Revisited: Concepts, Derivations, Nondimensalization and Fractionalization Approaches. Frontiers in Physics, 2019, 7, .	2.1	38
18	MAGNETIC FIELD ASSISTED FLUIDIZATION â€“ A UNIFIED APPROACH Part 2. Solids Batch Gas-Fluidized Beds: Versions and Rheology.. Reviews in Chemical Engineering, 2003, 19, 1-132.	4.4	34

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19	Integral solutions to transient nonlinear heat (mass) diffusion with a power-law diffusivity: a semi-infinite medium with fixed boundary conditions. Heat and Mass Transfer, 2016, 52, 635-655.	2.1	33
20	Derivation of the Fractional Dodson Equation and Beyond: Transient Diffusion With a Non-Singular Memory and Exponentially Fading-Out Diffusivity. Progress in Fractional Differentiation and Applications, 2017, 3, 255-270.	0.6	33
21	MAGNETIC FIELD ASSISTED FLUIDIZATION â€“ A UNIFIED APPROACH PART 5. A HYDRODYNAMIC TREATISE ON LIQUID-SOLID FLUIDIZED BEDS. Reviews in Chemical Engineering, 2006, 22, .	4.4	32
22	Derivatives with Non-Singular Kernels from the Caputo-Fabrizio Definition and Beyond: Appraising Analysis with Emphasis on Diffusion Models. Current Developments in Mathematical Sciences, 2018, , 269-341.	0.3	32
23	Non-porous magnetic supports for cell immobilization. Journal of Bioscience and Bioengineering, 1991, 71, 114-117.	0.9	30
24	Magnetic Field Assisted Fluidization - A Unified Approach Part 7. Mass Transfer: Chemical reactors, basic studies and practical implementations thereof. Reviews in Chemical Engineering, 2009, 25, 1-254.	4.4	28
25	An approximate analytical (integral-balance) solution to a nonlinear heat diffusion equation. Thermal Science, 2015, 19, 723-733.	1.1	26
26	Double integral-balance method to the fractional subdiffusion equation: Approximate solutions, optimization problems to be resolved and numerical simulations. JVC/Journal of Vibration and Control, 2017, 23, 2795-2818.	2.6	25
27	On the Atanganaâ€“Baleanu Derivative and Its Relation to the Fading Memory Concept: The Diffusion Equation Formulation. Studies in Systems, Decision and Control, 2019, , 175-193.	1.0	25
28	Modelling Fractal Waves on Shallow Water Surfaces via Local Fractional Korteweg-de Vries Equation. Abstract and Applied Analysis, 2014, 2014, 1-10.	0.7	24
29	The non-linear Dodson diffusion equation: Approximate solutions and beyond with formalistic fractionalization. , 2017, 01, 1-17.		24
30	An inverse Stefan problem relevant to boilover: Heat balance integral solutions and analysis. Thermal Science, 2007, 11, 141-160.	1.1	24
31	Geological evolution of the marine selenium cycle: Insights from the bulk shale Î´82/76Se record and isotope mass balance modeling. Earth and Planetary Science Letters, 2016, 441, 178-187.	4.4	23
32	Linear Viscoelastic Responses: The Prony Decomposition Naturally Leads Into the Caputo-Fabrizio Fractional Operator. Frontiers in Physics, 2018, 6, .	2.1	23
33	Magnetic field assisted fluidizationâ€”Dimensional analysis addressing the physical basis. Particuology: Science and Technology of Particles, 2007, 5, 103-110.	0.4	22
34	MAGNETIC FIELD ASSISTED FLUIDIZATION â€“ A UNIFIED APPROACH Part 3: Heat Transfer in Gas-Solid Fluidized Beds - a critical re-evaluation of the results. Reviews in Chemical Engineering, 2003, 19, .	4.4	21
35	Editorial: Fractional differential and integral operators with non-singular and non-local kernel with application to nonlinear dynamical systems. Chaos, Solitons and Fractals, 2020, 132, 109493.	5.1	21
36	Multiple integral-balance method: Basic idea and an example with Mullinâ€™s model of thermal grooving. Thermal Science, 2017, 21, 1555-1560.	1.1	21

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37	On the integral-balance approach to the transient heat conduction with linearly temperature-dependent thermal diffusivity. Heat and Mass Transfer, 2017, 53, 177-204.	2.1	20
38	Integral-balance solution to the Stokesâ€™ first problem of a viscoelastic generalized second grade fluid. Thermal Science, 2012, 16, 395-410.	1.1	19
39	MAGNETIC FIELD ASSISTED FLUIDIZATION â€“ A UNIFIED APPROACH Part 6. Topics of Gas-Liquid-Solid Fluidized Bed Hydrodynamics. Reviews in Chemical Engineering, 2007, 23, .	4.4	18
40	Fourth-order fractional diffusion model of thermal grooving: integral approach to approximate closed form solution of the Mullins model. Mathematical Modelling of Natural Phenomena, 2018, 13, 6.	2.4	18
41	Magnetically assisted gasâ€“solid fluidization in a tapered vessel: Part I. Magnetization-LAST mode. Particuology, 2009, 7, 26-34.	3.6	17
42	Starting radial subdiffusion from a central point through a diverging medium (a sphere): Heat-balance integral method. Thermal Science, 2011, 15, 5-20.	1.1	17
43	Silver recovery from spent photographic solutions by a magnetically assisted particle bed. Chemical Engineering and Processing: Process Intensification, 2013, 71, 83-96.	3.6	17
44	Space-Fractional Diffusion with a Potential Power-Law Coefï¬€cient: Transient Approximate Solution. Progress in Fractional Differentiation and Applications, 2017, 3, 19-39.	0.6	17
45	Diffusion models of heat and momentum with weakly singular kernels in the fading memories: How the integral-balance method can be applied?. Thermal Science, 2015, 19, 947-957.	1.1	17
46	A note on the integral approach to non-linear heat conduction with Jeffreyâ€™s fading memory. Thermal Science, 2013, 17, 733-737.	1.1	16
47	The heat-balance integral: 1. How to calibrate the parabolic profile?. Comptes Rendus - Mecanique, 2012, 340, 485-492.	2.1	15
48	The heat radiation diffusion equation: Explicit analytical solutions by improved integral-balance method. Thermal Science, 2018, 22, 777-788.	1.1	15
49	Accidental burning of a fuel layer on a waterbed: a scale analysis of the models predicting the pre-boilover time and tests to published data. International Journal of Thermal Sciences, 2004, 43, 221-239.	4.9	14
50	MAGNETIC FIELD ASSISTED FLUIDIZATION - A UNIFIED APPROACH Part 4. Moving Gas-Fluidized Beds. Reviews in Chemical Engineering, 2004, 20, .	4.4	14
51	Magnetically assisted gasâ€“solid fluidization in a tapered vessel: First report with observations and dimensional analysis. Canadian Journal of Chemical Engineering, 2008, 86, 470-492.	1.7	14
52	External loop airlift with magnetically controlled liquid circulation. Powder Technology, 2005, 149, 180-194.	4.2	13
53	A Transient Flow of a Non-Newtonian Fluid Modelled by a Mixed Time-Space Derivative: An Improved Integral-Balance Approach. Advances in Dynamics, Patterns, Cognition, 2019, , 153-174.	0.3	13
54	Research note on a parabolic heat-balance integral method with unspecified exponent: An entropy generation approach in optimal profile determination. Thermal Science, 2009, 13, 49-59.	1.1	13

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55	The heat-balance integral: 2. Parabolic profile with a variable exponent: The concept, analysis and numerical experiments. Comptes Rendus - Mecanique, 2012, 340, 493-500.	2.1	12
56	Magnetic field assisted fluidization â€“ a unified approach. Part 9. Mechanical processing with emphasis on separations. Reviews in Chemical Engineering, 2012, 28, .	4.4	12
57	Approximate Solutions to Time-fractional Models by Integral-balance Approach. , 2015, , 78-109.		12
58	Subdiffusion model with time-dependent diffusion coefficient: Integral-balance solution and analysis. Thermal Science, 2017, 21, 69-80.	1.1	12
59	Thermal impedance estimations by semi-derivatives and semi-integrals: 1-D semi-infinite cases. Thermal Science, 2013, 17, 581-589.	1.1	11
60	Magnetically stabilized bed dust filtersâ€”Analysis through variable length scale approach. Particuology: Science and Technology of Particles, 2007, 5, 121-129.	0.4	10
61	A unified nonlinear fractional equation of the diffusion-controlled surfactant adsorption: Reappraisal and new solution of the Wardâ€“Tordai problem. Journal of King Saud University - Science, 2016, 28, 7-13.	3.5	10
62	Identification of the heat transfer coefficient in the two-dimensional model of binary alloy solidification. Heat and Mass Transfer, 2017, 53, 1657-1666.	2.1	10
63	Scaling of permeabilities and friction factors of homogeneously expanding gas-solids fluidized beds: Geldartâ€™s A powders and magnetically stabilized beds. Thermal Science, 2006, 10, 19-44.	1.1	10
64	Rheological behavior of fermentation broths in antibiotic industry. Applied Biochemistry and Biotechnology, 1997, 68, 187-206.	2.9	9
65	Magnetically assisted gasâ€“solid fluidization in a tapered vessel: Part II. Particuology, 2009, 7, 183-192.	3.6	9
66	Practical data correlation of flashpoints of binary mixtures by a reciprocal function: The concept and numerical examples. Thermal Science, 2011, 15, 905-910.	1.1	9
67	Glycerol bioconversion in unconventional magnetically assisted bioreactor seeking whole cell biocatalyst (intracellular lipase) production. Chemical Engineering Research and Design, 2016, 111, 243-252.	5.6	9
68	Transient Space-fractional Diffusion with a Power-law Superdiffusivity: Approximate Integral-balance Approach. Fundamenta Informaticae, 2017, 151, 371-388.	0.4	9
69	Electrical Circuits of Non-integer Order: Introduction to an Emerging Interdisciplinary Area with Examples. Lecture Notes in Electrical Engineering, 2018, , 251-273.	0.4	8
70	Time to flashover of a vinyl based lining material: Cone calorimeter experiments. Thermal Science, 2011, 15, 785-792.	1.1	7
71	The Craft of Fractional Modeling in Science and Engineering 2017. Fractal and Fractional, 2018, 2, 16.	3.3	6
72	New insight into the definitions of the Bejan number. International Communications in Heat and Mass Transfer, 2020, 116, 104637.	5.6	6

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73	Critical review of the definitions of the Bejan number - first law of thermodynamics. International Communications in Heat and Mass Transfer, 2021, 124, 105113.	5.6	6
74	An approximate solution to the transient space-fractional diffusion equation: Integral-balance approach, optimization problems and analyzes. Thermal Science, 2017, 21, 309-321.	1.1	6
75	Non-linear heat conduction with ramped surface heating ramp surface heating and approximate solution. Thermal Science, 2020, 24, 377-389.	1.1	6
76	PHYSICAL AND MATHEMATICAL MODELS OF BIO-OIL COMBUSTION. , 2007, 17, 731-755.		5
77	Friction factors and internal flow length scales of gas-solid magnetically stabilized beds in axial fields: Scaling and applications to bed-to-surface heat transfer. Thermal Science, 2005, 9, 73-98.	1.1	5
78	External-loop airlift magnetically stabilized bedâ€"minimum stabilization and fluidization conditions. Particuology: Science and Technology of Particles, 2005, 3, 197-203.	0.4	4
79	Thermal impedance at the interface of contacting bodies: 1-D examples solved by semi-derivatives. Thermal Science, 2012, 16, 623-627.	1.1	4
80	Redistribution of mass from a thin interlayer between two thick dissimilar media: 1-D diffusion problem with a non-local condition. Thermal Science, 2013, 17, 651-664.	1.1	4
81	Magnetic field diffusion in ferromagnetic materials: fractional calculus approaches. International Journal of Optimization and Control: Theories and Applications, 2021, 11, 1-15.	1.7	4
82	Integral-Balance Solution to Nonlinear Subdiffusion Equation. Current Developments in Mathematical Sciences, 2018, , 70-105.	0.3	4
83	Effects of different fuel supply types on combustion characteristics behind group of V-gutter flame holders: Experimental and numerical study. Thermal Science, 2020, 24, 379-391.	1.1	4
84	Special issue on advances in fractional dynamics in mechanical engineering. Advances in Mechanical Engineering, 2016, 8, 168781401665409.	1.6	3
85	A new closed-form approximate solution to diffusion with quadratic Fujitaâ€™s non-linearity: the case of diffusion controlled sorption kinetics relevant to rectangular adsorption isotherms. Heat and Mass Transfer, 2019, 55, 261-279.	2.1	3
86	Prony's series and modern fractional calculus. , 2022, , 187-200.		3
87	Straightforward dimensionless experimental formulae for flash point of binary mixtures of two flammable components. Thermal Science, 2012, 16, 969-985.	1.1	2
88	Semi-derivative integral method to transient heat conduction: Time-dependent (power-law) temperature boundary conditions. Thermal Science, 2021, 25, 3557-3568.	1.1	2
89	An alternative integral-balance solutions to transient diffusion of heat (mass) by time-fractional semi-derivatives and semi-integrals: Fixed boundary conditions. Thermal Science, 2016, 20, 1867-1878.	1.1	2
90	Advances on Integrodifferential Equations and Transforms. Abstract and Applied Analysis, 2015, 2015, 1-2.	0.7	1

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91	MAGNETIC FIELD EFFECT ON HEAT TRANSFER BETWEEN GAS-FLUIDIZED FERROMAGNETIC PARTICLE BEDS AND IMMERSED SURFACES: RE-EXAMINATION OF THE RESULTS. , 2000, , .		1
92	The melt/shrink effect of low density thermoplastics insulates: Cone calorimeter tests. Thermal Science, 2017, 21, 2177-2187.	1.1	1
93	Lifetime of a soluble solid particle in a stagnant medium: approximate analytical modelling involving fractional (half-time) derivatives. Polish Journal of Chemical Technology, 2013, 15, 74-77.	0.5	1
94	On the Integral-Balance Solvability of the Nonlinear Mullins Model. Springer Proceedings in Mathematics and Statistics, 2018, , 53-66.	0.2	1
95	On the p(x) approximation in the non-isothermal reaction kinetics by a generalized exponential integral the concept. Thermal Science, 2021, 25, 321-326.	1.1	1
96	The Craft of Fractional Modelling in Science and Engineering: II and III. Fractal and Fractional, 2021, 5, 281.	3.3	1
97	On a new approach to distributions with variable transmuting parameter: The concept and examples with emerging problems. Ä°letiÅŸim, Sosyoloji Ve Tarih AraÅŸtÄ±rmalarÄ± Dergisi:, 0, , .	1.8	1
98	Integral-balance method with transmuted profiles: Concept, examples, and emerging problems. Journal of Computational and Applied Mathematics, 2022, 416, 114547.	2.0	1
99	Response to â€œComments on â€œNew insight into the definitions of the Bejan numberâ€â€. International Communications in Heat and Mass Transfer, 2021, 124, 105277.	5.6	0
100	On the Diffusion with Decaying Time-Dependent Diffusivity: Formulations and Approximate Solutions Pertinent to Diffusion in Concretes. Studies in Systems, Decision and Control, 2022, , 1-44.	1.0	0
101	Rheology of Magnetizable Powders Related to the Mechanics of Magnetically Stabilized Beds (gas-solid systems). , 1998, , 133-134.		0
102	Influence of fiberglass mesh on flammability of EPS used as insulation of buildings. Thermal Science, 2018, 22, 1025-1036.	1.1	0
103	Preface on "New trends of numerical and analytical methods". Discrete and Continuous Dynamical Systems - Series S, 2020, 13, â…°-â…±.	1.1	0
104	Semi-derivative integral method to transient heat conduction time-dependent heat flux boundary conditions. Thermal Science, 2021, 25, 303-308.	1.1	0
105	Non-linear heat conduction with ramped surface heating ramp surface heating and approximate solution. Thermal Science, 2020, 24, 377-389.	1.1	0
106	Benefits from the use of wire-coil inserts in water transitional and low turbulent flow: The influence of the wire-coil pitch. Thermal Science, 2022, 26, 3597-3604.	1.1	0