Ewa Majchrzak

List of Publications by Year
in descending order

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83	587	840119 11	752256 20
papers	citations	h-index	g-index

87	87	87	253
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identification of tumor region parameters using evolutionary algorithm and multiple reciprocity boundary element method. Engineering Applications of Artificial Intelligence, 2007, 20, 647-655.	4.3	57
2	The general boundary element method for 3D dual-phase lag model of bioheat transfer. Engineering Analysis With Boundary Elements, 2015, 50, 76-82.	2.0	41
3	Numerical analysis of the interactions between laser and soft tissues using generalized dual-phase lag equation. Applied Mathematical Modelling, 2016, 40, 750-762.	2.2	38
4	Numerical model of thermal interactions between cylindrical cryoprobe and biological tissue using the dual-phase lag equation. International Journal of Heat and Mass Transfer, 2017, 108, 1-10.	2.5	36
5	Application of the BEM in the thermal theory of foundry. Engineering Analysis With Boundary Elements, 1995, 16, 99-121.	2.0	32
6	Dual-phase lag model of thermal processes in a multi-layered microdomain subjected to a strong laser pulse using the implicit scheme of FDM. International Journal of Thermal Sciences, 2018, 133, 240-251.	2.6	28
7	SENSITIVITY ANALYSIS OF TRANSIENT TEMPERATURE FIELD IN MICRODOMAINS WITH RESPECT TO THE DUAL-PHASE-LAG MODEL PARAMETERS. International Journal for Multiscale Computational Engineering, 2014, 12, 65-77.	0.8	22
8	Numerical Modeling of Casting Solidification Using Generalized Finite Difference Method. Materials Science Forum, 0, 638-642, 2676-2681.	0.3	20
9	Identification of electromagnetic field parameters assuring the cancer destruction during hyperthermia treatment. Inverse Problems in Science and Engineering, 2011, 19, 45-58.	1.2	20
10	Dual-phase lag equation. Stability conditions of a numerical algorithm based on the explicit scheme of the finite difference method. Journal of Applied Mathematics and Computational Mechanics, 2016, 15, 89-96.	0.3	20
11	Algorithm of the mould thermal parameters identification in the system castingâ€“mouldâ€“environment. Journal of Materials Processing Technology, 2005, 164-165, 1544-1549.	3.1	13
12	Numerical Modelling of Hyperthermia and Hypothermia Processes. Advanced Materials Research, 2011, 268-270, 257-262.	0.3	13
13	Identification of Laser Intensity Assuring the Destruction of Target Region of Biological Tissue Using the Gradient Method and Generalized Dual-Phase Lag Equation. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2019, 43, 539-548.	0.8	13
14	Numerical simulation of continuous casting solidification by boundary element method. Engineering Analysis With Boundary Elements, 1993, 11, 95-99.	2.0	12
15	Numerical modelling of bioheat transfer in multi-layer skin tissue domain subjected to a flash fire. , 2003, , 1766-1770.		12
16	BIOINSPIRED IDENTIFICATION OF PARAMETERS IN MICROSCALE HEAT TRANSFER. International Journal for Multiscale Computational Engineering, 2014, 12, 79-89.	0.8	11
17	Sensitivity analysis of temperature field in the heated soft tissue with respect to the perturbations of porosity. Applied Mathematical Modelling, 2017, 49, 498-513.	2.2	11
18	Modeling of laser heating of bi-layered microdomain using the general boundary element method. Engineering Analysis With Boundary Elements, 2019, 108, 438-446.	2.0	9

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19	Numerical analysis of cast iron solidification process. Journal of Materials Processing Technology, 1995, 53, 285-292.	3.1	8
20	Identification of Thermal Properties of the System Casting-Mould. Materials Science Forum, 0, 539-543, 2491-2496.	0.3	7
21	Sensitivity Analysis of Temperature Field and Parameter Identification in Burned and Healthy Skin Tissue. Advanced Structured Materials, 2016, , 89-112.	0.3	7
22	Numerical Simulation of Thermal Processes in a Domain of Thin Metal Film Subjected to an Ultrashort Laser Pulse. Materials, 2018, 11, 2116.	1.3	7
23	Second-Order Dual Phase Lag Equation. Modeling of Melting and Resolidification of Thin Metal Film Subjected to a Laser Pulse. Mathematics, 2020, 8, 999.	1.1	7
24	Solution of dual phase lag equation by means of the boundary element method using discretization in time. Journal of Applied Mathematics and Computational Mechanics, 2013, 12, 89-95.	0.3	7
25	ANALYSIS OF THERMAL PROCESSES OCCURRING IN THE MICRODOMAIN SUBJECTED TO THE ULTRASHORT LASER PULSE USING THE AXISYMMETRIC TWO-TEMPERATURE MODEL. International Journal for Multiscale Computational Engineering, 2017, 15, 395-411.	0.8	6
26	Analysis of ultrashort laser pulse interactions with metal films using a two-temperature model. Journal of Applied Mathematics and Computational Mechanics, 2015, 14, 31-39.	0.3	6
27	The numerical micro/macro model of solidification process. Journal of Materials Processing Technology, 1997, 64, 267-276.	3.1	5
28	Boundary element model of coupled heat and mass transfer in solidifying castings. International Journal of Cast Metals Research, 2000, 12, 227-232.	0.5	5
29	Application of the boundary element method for the numerical modelling of the solidification of cylindrical and spherical castings. Journal of Materials Processing Technology, 2000, 106, 99-106.	3.1	5
30	Identification of cast steel latent heat by means of gradient method. International Journal of Computational Materials Science and Surface Engineering, 2007, 1, 555.	0.2	5
31	Modeling of phase changes in the metal microâ€domains subjected to ultrafast laser heating using dualâ€phase lag equation. Materialwissenschaft Und Werkstofftechnik, 2016, 47, 409-418.	0.5	5
32	Dual-phase lag model of heat transfer between blood vessel and biological tissue. Mathematical Biosciences and Engineering, 2021, 18, 1573-1589.	1.0	5
33	Implicit scheme of the finite difference method for 1D dual-phase lag equation. Journal of Applied Mathematics and Computational Mechanics, 2017, 16, 37-46.	0.3	5
34	Numerical Modeling of Melting Process of Thin Metal Films Subjected to the Short Laser Pulse. Archives of Foundry Engineering, 2012, 12, 105-108.	0.4	5
35	Computer simulation of heat transfer between the particles and metal matrix during the solidification of a cast composite. International Journal of Cast Metals Research, 2000, 12, 241-249.	0.5	4
36	Analysis of thermal processes in solidifying casting using the combined variant of the BEM. Journal of Materials Processing Technology, 2001, 109, 126-132.	3.1	4

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37	Numerical solutions of the second-order dual-phase-lag equation using the explicit and implicit schemes of the finite difference method. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 2099-2120.	1.6	4
38	Implicit scheme of the finite difference method for the second-order dual phase lag equation. Journal of Theoretical and Applied Mechanics, 0, , 393.	0.2	4
39	Simplified model of thermal interactions between environment, protective clothing and skin tissue. Journal of Applied Mathematics and Computational Mechanics, 2014, 13, 91-96.	0.3	4
40	Heat flux formulation for 1D dual-phase lag equation. Journal of Applied Mathematics and Computational Mechanics, 2015, 14, 71-78.	0.3	4
41	Numerical model of macro-segregation during directional crystallization process. Journal of Materials Processing Technology, 1998, 78, 122-127.	3.1	3
42	Application of the Shape Sensitivity Analysis in Numerical Modelling of Solidification Process. Materials Science Forum, 2007, 539-543, 2524-2529.	0.3	3
43	Parabolic and Hyperbolic Two-Temperature Models of Microscopic Heat Transfer. Comparison of Numerical Solutions. Materials Science Forum, 0, 706-709, 1454-1459.	0.3	3
44	Numerical Model Of Binary Alloys Solidification Basing On The One Domain Approach And The Simple Macrosegregation Models. Archives of Metallurgy and Materials, 2015, 60, 2431-2435.	0.6	3
45	General Boundary Element Method for the Dual-Phase Lag Equations Describing the Heating of Two-Layered Thin Metal Films. Advanced Structured Materials, 2020, , 263-278.	0.3	3
46	1D generalized dual-phase lag equation. Sensitivity analysis with respect to the porosity. Journal of Applied Mathematics and Computational Mechanics, 2016, 15, 49-58.	0.3	3
47	Sensitivity analysis of temperature in heated soft tissues with respect to time delays. Continuum Mechanics and Thermodynamics, 2022, 34, 587-599.	1.4	3
48	Modelling of Pe C alloys solidification using the artificial heat source method. Journal of Materials Processing Technology, 1997, 64, 293-302.	3.1	2
49	Boundary element model of microsegregation during volumetric solidification of binary alloy. Computational Mechanics, 2002, 28, 186-190.	2.2	2
50	Sensitivity Analysis as a Tool of Optimal Sensors Location for Solidification Parameters Estimation. Materials Science Forum, 0, 638-642, 2640-2645.	0.3	2
51	Sensitivity Analysis and Inverse Problems in Microscale Heat Transfer. Defect and Diffusion Forum, 2015, 362, 209-223.	0.4	2
52	Estimation of Cast Iron Substitute Thermal Capacity Using the Experimental Data. Archives of Metallurgy and Materials, 2016, 61, 307-314.	0.6	2
53	First and second order dual phase lag equation. Numerical solution using the explicit and implicit schemes of the finite difference method. MATEC Web of Conferences, 2018, 240, 05018.	0.1	2
54	Soft tissue freezing process. Identification of the dual-phase lag model parameters using the evolutionary algorithm. AIP Conference Proceedings, 2018, , .	0.3	2

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55	Numerical modelling of bioheat transfer in multi-layer skin tissue domain subjected to a flash fire. , 2003, , 1766-1770.		2
56	Numerical analysis of tissue heating using the generalized dual phase lag model. , 2014, , 355-362.		2
57	Numerical modeling of thermal processes in the living tissue domain secured with a layer of protective clothing. Journal of Applied Mathematics and Computational Mechanics, 2014, 13, 87-94.	0.3	2
58	Application of numerical methods for solving the non-fourier equations. A review of our own and collaboratorsâ€™ works. Journal of Applied Mathematics and Computational Mechanics, 2018, 17, 43-50.	0.3	2
59	A numerical analysis of heating tissue using the two-temperature model. WIT Transactions on Engineering Sciences, 2014, , .	0.0	2
60	The modelling of heating a tissue subjected to external electromagnetic field. Acta of Bioengineering and Biomechanics, 2008, 10, 29-37.	0.2	2
61	Application of different variants of the BEM in numerical modeling of bioheat transfer problems. MCB Molecular and Cellular Biomechanics, 2013, 10, 201-32.	0.3	2
62	Sensitivity analysis of temperature field in the heated tissue with respect to the dual-phase-lag model parameters. , 2016, , 371-375.		1
63	Numerical analysis of laser ablation using the axisymmetric two-temperature model. AIP Conference Proceedings, 2018, , .	0.3	1
64	Evolutionary Computation in Inverse Problems. , 2004, , 33-46.		1
65	Modelling of phase changes in thin metal film subjected to ultrafast laser heating using the two-temperature model. , 2016, , 367-370.		1
66	Numerical modeling of biological tissue freezing process using the Dual-Phase-Lag Equation. , 2016, , 413-417.		1
67	Modeling of Melting and Resolidification in Domain of Metal Film Subjected to a Laser Pulse. Archives of Foundry Engineering, 2016, 16, 41-44.	0.4	1
68	Application of combined BEM-FEM algorithm in numerical modelling of diffusion problems. Computational Mechanics, 1996, 18, 55-61.	2.2	0
69	Evolutionary computation in identification of a tumor. , 0, , .		0
70	Sensitivity analysis of macrosegregation simulation with respect to partition and diffusion coefficients. International Journal of Cast Metals Research, 2004, 17, 72-78.	0.5	0
71	Application of General Boundary Element Method for Numerical Solution of Bioheat Transfer Equation. Computational Methods in Applied Sciences (Springer), 2011, , 343-361.	0.1	0
72	Sensitivity Analysis of Temperature Field in Domain of Skin Tissue with Respect to Perturbations of Protective Clothing Parameters. Defect and Diffusion Forum, 0, 362, 13-22.	0.4	0

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73	Modeling of Laser-Soft Tissue Interactions Using the Dual-Phase Lag Equation: Sensitivity Analysis with Respect to Selected Tissue Parameters. Defect and Diffusion Forum, 0, 379, 108-123.	0.4	0
74	Numerical model of biological tissue heating using the models of bioâ€“heat transfer with delays. E3S Web of Conferences, 2019, 128, 02002.	0.2	0
75	Sensitivity analysis of solidification process using the boundary element method (the micro-macro) Tj ETQq1 1 0.784314 rgBT /Overlock		0
76	Determination of the temperature field in burned and healthy skin tissue using the boundary element method - part I. Journal of Applied Mathematics and Computational Mechanics, 2013, 12, 39-46.	0.3	0
77	Identification of Material Thermophysical Parameters with Regard to Optimum Location of Sensors. , 2014, , 109-118.		0
78	Temperature field in burned and healthy tissue - sensitivity analysis with respect to the thermal parameters. Journal of Applied Mathematics and Computational Mechanics, 2014, 13, 47-58.	0.3	0
79	MODELING OF PHASE CHANGES IN MICRO-DOMAIN INDUCED BY AN ULTRASHORT LASER PULSE. , 2016, , .		0
80	Modeling of heat transfer and fluid flow in a rectangular channel with an obstacle. Journal of Applied Mathematics and Computational Mechanics, 2020, 19, 121-132.	0.3	0
81	HEAT TRANSFER IN THIN METAL FILM MODELED BY BOLTZMANN TRANSPORT EQUATION AND A TWO-TEMPERATURE MODEL. , 2020, , .		0
82	COUPLED ANALYSIS OF A CAROTID ARTERY WITH AN ATHEROSCLEROTIC PLAQUE AT VARIOUS STAGES OF DISEASE. , 2020, , .		0
83	Application of the Complex Variable Step Method and the Boundary Element Method for Sensitivity Analysis of Steady Heat Conduction Problems. Defect and Diffusion Forum, 0, 412, 83-96.	0.4	0