Masaaki Tamagawa

List of Publications by Year
in descending order

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119	240	1039406	1058022
papers	citations	9	14
		h-index	g-index

125	125	125	172
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Simulation of Thrombus Formation in Shear Flows Using Lattice Boltzmann Method. Artificial Organs, 2009, 33, 604-610.	1.0	31
2	Review of numerical methods for simulation of mechanical heart valves and the potential for blood clotting. Medical and Biological Engineering and Computing, 2017, 55, 1519-1548.	1.6	28
3	Prediction of Hemolysis in Turbulent Shear Orifice Flow. Artificial Organs, 1996, 20, 553-559.	1.0	25
4	A Cartesian non-boundary fitted grid method on complex geometries and its application to the blood flow in the aorta using OpenFOAM. Mathematics and Computers in Simulation, 2019, 159, 220-250.	2.4	14
5	Fluid Structure Interaction on Paravalvular Leakage of Transcatheter Aortic Valve Implantation Related to Aortic Stenosis: A Patient-Specific Case. Computational and Mathematical Methods in Medicine, 2020, 2020, 1-22.	0.7	14
6	Prediction of hemolysis in turbulent shear orifice flow. Artificial Organs, 1996, 20, 553-9.	1.0	14
7	Predictions of Thrombus Formation Using Lattice Boltzmann Method (Modeling of Adhesion Force) Tj ETQq1 1 0.784314 rgBT /Overlo Manufacturing, 2004, 47, 1027-1034.	0.3	12
8	Numerical Analysis Using a Fixed Grid Method for Cardiovascular Flow Application. Journal of Medical Imaging and Health Informatics, 2016, 6, 1483-1488.	0.2	11
9	Bioengineering. Fundamental Investigation for Developing Drug Delivery Systems and Bioprocess with Shock Waves and Bubbles. Numerical Analysis of Deformation of Cell Model and Observation of Bubble Behavior near the Cell-Membrane Model.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2001, 44, 1031-1040.	0.3	9
10	Computational flow analysis of a single peristaltic wave propagation in the ureter. Computer Methods and Programs in Biomedicine, 2021, 210, 106378.	2.6	9
11	The Hemodynamic Effects of Paravalvular Leakage Using Fluid Structure Interaction; Transcatheter Aortic Valve Implantation Patient. Journal of Medical Imaging and Health Informatics, 2016, 6, 1513-1518.	0.2	9
12	FINITE ELEMENT ANALYSIS OF URINARY BLADDER WALL THICKNESS AT DIFFERENT PRESSURE CONDITION. Journal of Mechanics in Medicine and Biology, 2019, 19, 1950029.	0.3	7
13	Effects of Shock Waves on Living Tissue Cells and its Deformation Process Using a Mathematical Model.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1999, 42, 640-647.	0.3	4
14	Predictions of Index of Hemolysis in Shear Blood Flow (Effects of Exposure Time Under Shear Stress) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 and Manufacturing, 2003, 46, 604-613.	0.3	4
15	Deformation Analysis of Bubble near Curved Elastic Wall for Developing Shock Wave DDS. JSME International Journal Series B, 2006, 49, 755-760.	0.3	4
16	Prediction of thrombus formation in blood flow by CFD and its modeling. , 2007, , 3159-3160.		4
17	Computational Fluid Dynamics Study of Airflow and Microparticle Deposition in a Constricted Pharyngeal Section Representing Obstructive Sleep Apnea Disease. Journal of Medical Imaging and Health Informatics, 2016, 6, 1507-1512.	0.2	4
18	Intraarterial digital subtraction angiography in detection of hepatocellular carcinoma. CardioVascular and Interventional Radiology, 1989, 12, 61-65.	0.9	3

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19	Effects on Living Tissues Induced by Shock Waves. 1st Report, Development of Shock Tube Generating Single Pulse Pressure Wave for Bio-Test and Animal Experiments.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1994, 60, 3762-3767.	0.2	3
20	Effects of Shock Waves on Living Tissues. Numerical Analysis of a Propagating Pressure Wave toward Living Tissue.. JSME International Journal Series B, 1996, 39, 714-720.	0.3	3
21	Predictions of Index of Hemolysis in Shear Blood Flow. Effects of Contact with Wall and Particle Inertia.. JSME International Journal Series B, 2000, 43, 225-232.	0.3	3
22	Water Treatment using Discharge Generated in Cavitation Field with Micro Bubble Cloud. IEEJ Transactions on Fundamentals and Materials, 2012, 132, 656-663.	0.2	3
23	Simulation of Mechanical Heart Valve Dysfunction and the Non-Newtonian Blood Model Approach. Applied Bionics and Biomechanics, 2022, 2022, 1-14.	0.5	3
24	Predictions of Index of Hemolysis in Shear Blood Flow. Improvement of Accuracy for Prediction by Modifying Turbulence Model for Orifice-pipe Flow.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2000, 43, 853-861.	0.3	2
25	Prediction of Hemolysis Tendency by Shear Stress in a Pipe Orifice Blood Flow.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1996, 62, 1747-1753.	0.2	1
26	Bubble Deformation Analysis near Curved Elastic Wall for Developing Shock Wave DDS. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2004, 70, 1269-1275.	0.2	1
27	Prototype of Microcapsules and Their Mechanical Properties for Developing Shock Wave Drug Delivery Systems. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2005, 71, 1088-1093.	0.2	1
28	Development of microcapsules for shock wave DDS and angiogenesis using shock waves. AIP Conference Proceedings, 2006, , .	0.3	1
29	Effects of High Shear Rate on Thrombus Formation Rate on Pipe Orifice Flows Using Laser Sheet Method and the Prediction of Thrombus Formation Rate by CFD. , 2012, , .		1
30	Development of Ballast Water Treatment Systems Using Interaction of Bubbles, Shock Waves and Discharges. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2012, 78, 1043-1047.	0.2	1
31	Water Treatment Using Discharge Generated in Cavitation Field with Micro Bubble Cloud. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2014, 186, 1-10.	0.2	1
32	Computational fluid dynamics study of the aortic valve opening on hemodynamics characteristics. , 2014, , .		1
33	Effects of geometrical and mechanical properties of cells on micro-jet and bubbles. Physics of Life Reviews, 2018, 26-27, 49-50.	1.5	1
34	Visualization of Thrombus Formation Process on Pipe Orifice Flows by Laser Sheet. , 2010, , .		1
35	Prediction of Thrombus Formation on the Wall by High Shear Rate on Couette and OrificeBlood Flows. Journal of Medical Imaging and Health Informatics, 2017, 7, 79-84.	0.2	1
36	Treatments of Plankton and <i>Escherichia coli</i> Cells using Hybrid Method with Water Cavitation and Discharge Plasma. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 357-365.	0.2	1

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37	Computational Model of a Neutrophil's Propulsion by Concentration Gradient of Cytokine. Journal of Medical Imaging and Health Informatics, 2016, 6, 1478-1482.	0.2	1
38	Fundamental Investigation of Effects for Neutrophils Chemotaxis by Underwater Shockwave Stimulation. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2020, 2020.31, 2B14.	0.0	1
39	Effects on Living Tissues Induced by Shock Waves. 2nd Report, Numerical Analysis of a Propagating Pressure Wave toward Living Tissue.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1994, 60, 3768-3774.	0.2	0
40	Predictions for Hemolysis Properties in Shear Blood Flows of the Pipe-Orifice. 2nd Report, Effects of Particle Inertia and Contact with Wall.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1999, 65, 1621-1628.	0.2	0
41	Bubble Deformation Analysis Near Curved Elastic Wall for Developing Shock Wave DDS (2nd Report,) Tj ETQq1 1 0.784314 rgBT /Ove the Japan Society of Mechanical Engineers Series B B-hen, 2005, 71, 1762-1767.	0.2	0
42	Simulation of Thrombus Formation Using Lattice Boltzmann Method. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2007, 73, 2433-2439.	0.2	0
43	CFD Study of Thrombus Formation on Shear Blood Flows by Using Modified Lattice Boltzmann Method and Thrombus Observation. , 2008, , .		0
44	Effects of Shock Waves on Acceleration of Cell Growth Rate by Shock Tube. , 2008, , .		0
45	Analysis of a Bubble Deformation Process in a Microcapsule for Developing Drug Delivery Systems Using Underwater Shock Waves. , 2010, , .		0
46	Simulation of Thrombus Formation Process Using Lattice Boltzmann Method With Consideration of Adhesion Force to Wall. , 2010, , .		0
47	Observation of Bubble Deformation Process in a Microcapsule for Developing Drug Delivery Systems Using Shock Waves and Ultrasonic Waves. , 2011, , .		0
48	Analysis of a bubble deformation process in a microcapsule by shock waves for developing DDS. , 2012, , .		0
49	Least square evaluation of head injury criterion (HIC) for various situations. , 2014, , .		0
50	Observation of Thrombus Formation Process by High Shear Rate on Various Flows and CFD Based Prediction Method for Thrombus Formation Rate. , 2014, , .		0
51	Development of Water Treatment Systems Using Interaction of Pressure Waves, Cavitation Bubbles and Micro Bubbles. , 2014, , .		0
52	Precise analysis of head deformation at falling shock. , 2015, , .		0
53	Significant attributes identification for indoor cycling fatigue classification. AIP Conference Proceedings, 2019, , .	0.3	0
54	Development of a novel hybrid method combining finite difference method and dissipative particle dynamics to simulate thrombus formation on orifice flow. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 611-626.	0.9	0

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55	Fundamental Investigation of Generating Femtosecond Laser-Induced Underwater Shockwave for Development of Regenerative Medical System. The Proceedings of Conference of Kyushu Branch, 2021, 2021.74, A15.	0.0	0
56	Effect of Shock Wave Induced Stimulate on Underwater Propulsion Mechanism of Neutrophil for Immunotherapy. The Proceedings of Conference of Kyushu Branch, 2021, 2021.74, C42.	0.0	0
57	Cell Damage and Deformation Process in the field of Medical Application of Shock Waves. The Proceedings of the Fluids Engineering Conference, 2000, 2000, 279-280.	0.0	0
58	Estimation of Prediction for Hemolysis Properties in Turbulent Shear Flows with Impiging and Separation. The Proceedings of the Computational Mechanics Conference, 2000, 2000.13, 195-196.	0.0	0
59	Coupling oscillation problem between deformation of cells and flow by propagating underwater shock waves. The Proceedings of the JSME Annual Meeting, 2000, 2000.1, 279-280.	0.0	0
60	Propagation of shock wave in a cell with a gas bubble and analysis of its deformation process. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2001, 2001.13, 260-261.	0.0	0
61	Numerical simulation of a propagating shock wave in a cell including a gas bubble in bioprocess. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2003, 2003.15, 413-414.	0.0	0
62	Generation of a Laser induced Shock Wave using Optical Fiber and its Application for DDS. The Proceedings of the JSME Annual Meeting, 2003, 2003.7, 87-88.	0.0	0
63	Blood Flow Analysis using Lattice Boltzmann Method and its Applications to Thrombus Phenomena. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2004, 2004.16, 215-216.	0.0	0
64	Generation of a Water Shock Wave and its Propagation Analysis for Developing Shock Wave Drug Delivery Systems. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2004, 2004.16, 407-408.	0.0	0
65	Deformation Process of a Gas Bubble near Curved Elastic Wall by Shock Waves for Design of Drug Delivery Systems(Biomimetics & Innovative Design). The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics, 2004, 2004.1, 17-18.	0.0	0
66	Analysis of Deformation Process of a Bubble in a Cell Model by Shock Wave for Developing Drug Delivery Systems. , 2004, , .		0
67	1248 Effects of Shock Waves on Endothelial Cells in Vitro. The Proceedings of the JSME Annual Meeting, 2005, 2005.5, 237-238.	0.0	0
68	Prototype of Microcapsule Including a Gas Bubble for Developing Shock Wave Drug Delivery Systems. , 2005, , .		0
69	727 Effects of underwater plane shock waves on vial endothelial cells : Effects of pressure waves and analysis of cell growth by gene expression. The Proceedings of the JSME Annual Meeting, 2006, 2006.5, 253-254.	0.0	0
70	Prediction of Thrombus Formation by using CFD and its Validation. Journal of Life Support Engineering, 2006, 18, 31-31.	0.1	0
71	819 Mechanical Stimuli of Vascular Endothelial Cells by Underwater Plane Shock Wave(2). The Proceedings of the Fluids Engineering Conference, 2006, 2006, _819-1_-_819-4_.	0.0	0
72	819 Mechanical Stimuli of Vascular Endothelial Cells by Underwater Plane Shock Wave(1). The Proceedings of the Fluids Engineering Conference, 2006, 2006, _819-a_.	0.0	0

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73	Development of prediction method of thrombus formation in shear flow by CFD(1D3 Artificial Organs) Tj ETQq1 1 0.784314 rgBT /Overl Technology in Biomechanics, 2007, 2007.3, S71.	0.0	0
74	Prototype of Microcapsule for Shock Wave Drug Delivery Systems and Its Design. , 2007, , .		0
75	Fundamental Investigations of Driving Force of Microcapsule for Drug Delivery Systems Using the Principle of Neutrophileâ€™s Chemotaxis. , 2007, , .		0
76	Effects of Underwater Shock Wave on Endothelial Cells in Vitro Using Shock Tube. , 2007, , .		0
77	CFD Study of Thrombus Formation on Shear Blood Flows for Developing Prediction Method of Thrombus. , 2007, , .		0
78	MECHANICAL CHARACTERISTICS OF VASCULAR CELLS AND TISSUES EXPOSED TO DEFORMATION, FREEZING AND SHOCK WAVES: MEASUREMENTS AND THEORETICAL PREDICTIONS. , 2007, , 152-163.		0
79	Development of Microcapsules Including a Gas Bubble for Shock Wave Based Drug Delivery. , 2008, , .		0
80	Fundamental Investigations of Driving Force of a Neutrophile in Liquid Using Concentration Marangoni Effect for Developing Microcapsules in Drug Delivery Systems. , 2008, , .		0
81	CFD Based Prediction Method of Thrombus Formation in Shear Flow and Its Validation. , 2008, , .		0
82	Prediction Method of Thrombus Formation Process in Separation and Reattachment Blood Flow Using Lattice Boltzmann Method. , 2009, , .		0
83	Acceleration of cell growth rate by plane shock wave using shock tube. , 2009, , 841-846.		0
84	Visualization of thrombus formation and CFD based prediction on shear flows. IFMBE Proceedings, 2009, , 1099-1100.	0.2	0
85	Effects of High Shear Rate on Thrombus Formation Process on Pipe Orifice Flows. , 2011, , .		0
86	J026022 Development of microcapsules including bubbles and the disintegration rate for shock wave DDS. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _J026022-1-_J026022-4.	0.0	0
87	G050025 Fundamental investigation of Water Treatment using Bubble and Pressure wave. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _G050025-1-_G050025-4.	0.0	0
88	J021013 Assessment for Collision and Fall induced Human Injury. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _J021013-1-_J021013-3.	0.0	0
89	S021014 Wall attachment thrombus formation on the various shear flow field. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _S021014-1-_S021014-3.	0.0	0
90	Development Drug Delivery Systems by Shock Waves Using Special Microcapsules Including a Gas Bubble. , 2012, , .		0

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91	1C03 Development of microcapsules including bubbles and the disintegration rate for shock wave DDS. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2013, 2013.25, 83-84.	0.0	0
92	1C04 Development of Microcapsules for cell cultures by shock waves and gas bubbles. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2013, 2013.25, 85-86.	0.0	0
93	Analysis of Thrombus Formation Process by Flow Induced High Shear Rate Using Optical Observation Method. , 2013, , .		0
94	2A13 Disintegration of capsule by wave control for developing shock wave DDS. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 255-256.	0.0	0
95	S0220201 Evaluation of thrombus formation rate at wall by various shear flows. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _S0220201--_S0220201-.	0.0	0
96	S0220201 Estimation of thrombus formation by high shear rate on various flows using both thrombus visualization and CFD Analysis. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _S0220201--_S0220201-.	0.0	0
97	PS1-3 Prediction of Thrombus Formation on the Wall by High Shear Rate on Various Blood Flows(PS1:) Tj ETQq1 1 0.784314 rgBT /Ov Biomechanics Emerging Science and Technology in Biomechanics, 2015, 2015.8, 224.	0.0	0
98	Fundamental Investigation of a Bubble Deformation Process in a Capsule by Pressure Waves for Developing DDS Microcapsules Including Gas Bubbles. , 2015, , .		0
99	FD analysis by transport process of concentration for prediction of thrombus formation adhered to the wall on shear flows. The Proceedings of the Fluids Engineering Conference, 2016, 2016, GS13.	0.0	0
100	Observation of thrombus formation adhered to the wall by uniform shear flow and its mechanism. The Proceedings of Mechanical Engineering Congress Japan, 2016, 2016, J0240207.	0.0	0
101	1H16 Analysis of deformation process of a bubble in the capsule for development of microcapsules for regenerative system by shock wave. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _1H16-1_-_1H16-4_.	0.0	0
102	Numerical simulation with considering transport equations of concentrations to predict the white thrombus formation of on the wall. The Proceedings of Mechanical Engineering Congress Japan, 2016, 2016, J0240305.	0.0	0
103	Development of Level Set in Image Segmentation with the Portable Extensible Toolkit for Scientific Computation. Journal of Medical Imaging and Health Informatics, 2016, 6, 1519-1525.	0.2	0
104	A Special Section on Computational Methods in Health and Biological Sciences. Journal of Medical Imaging and Health Informatics, 2016, 6, 1475-1477.	0.2	0
105	Prediction of thrombus formation on flows around an orifice and a nozzle in the pipe. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2017, 2017.28, 1B35.	0.0	0
106	Visualization of Thrombus Formation on Shear Flows in Paravalvular Leak Model and related Analysis. The Proceedings of Mechanical Engineering Congress Japan, 2018, 2018, J0210102.	0.0	0
107	Research of a Neutrophilâ€™s Aquatic Propulsion Mechanism by Concentration Gradient of Cytokine. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2018, 2018.29, 2C31.	0.0	0
108	Analysis of thrombus formation on wall surface in Paravalvular leak models. The Proceedings of Conference of Kyushu Branch, 2019, 2019.72, G41.	0.0	0

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109	Observation and elucidation of propulsion mechanism of a neutrophil by cytokine concentration gradient. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2019, 2019.30, 2B15.	0.0	0
110	CFD analysis of thrombus formation around a catheter in peripheral vein and flow. The Proceedings of Mechanical Engineering Congress Japan, 2019, 2019, J02704.	0.0	0
111	Analysis of thrombus formation on wall surface in Paravalvular leak models of TAVI and effects of the flow on it. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2019, 2019.30, 1C24.	0.0	0
112	Control of Generating Femtosecond Laser-Induced Micro Shock Wave and Bubbles for Development of Regenerative Medical System. The Proceedings of Mechanical Engineering Congress Japan, 2020, 2020, J02408.	0.0	0
113	Effects of membrane property of neutrophil on its propulsion mechanism by concentration gradient of cytokine. The Proceedings of Mechanical Engineering Congress Japan, 2020, 2020, J02304.	0.0	0
114	Thrombus Formation around a Peripheral Vein Catheter and CFD Analysis of the Flow with contact to the Vein Wall. The Proceedings of Mechanical Engineering Congress Japan, 2020, 2020, J02306.	0.0	0
115	Fundamental Investigation of Effects for Neutrophils Chemotaxis by Underwater Shockwave Stimulation. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2020, 2020.31, 2B13.	0.0	0
116	Study on the effects of cytokine concentration gradient on neutrophil propulsion mechanism. The Proceedings of Mechanical Engineering Congress Japan, 2021, 2021, J021-08.	0.0	0
117	Visualization and CFD analysis of thrombus formation in perivalvular leakage of TAVI artificial valve model. The Proceedings of Mechanical Engineering Congress Japan, 2021, 2021, J021-16.	0.0	0
118	Elucidation of Driving Force of Neutrophile in Liquid by Cytokine Concentration Gradient. IFMBE Proceedings, 0, , 882-883.	0.2	0
119	Effects of underwater plane shock waves on neutrophil propulsion. Journal of Biomechanical Science and Engineering, 2022, , .	0.1	0