

Victoria Timchenko

List of Publications by Year in descending order

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111
papers

1,878
citations

236925

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302126

39
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111
all docs

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docs citations

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times ranked

1572
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | A combined transient thermal model for laser hyperthermia of tumors with embedded gold nanoshells. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 5459-5469. | 4.8 | 119 |
| 2 | Soft and Moldable Mg-Doped Liquid Metal for Conformable Skin Tumor Photothermal Therapy. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800318. | 7.6 | 116 |
| 3 | Microchannel cooling of concentrator photovoltaics: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 90, 1041-1059. | 16.4 | 114 |
| 4 | Indirect heating strategy for laser induced hyperthermia: An advanced thermal model. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 4688-4700. | 4.8 | 107 |
| 5 | Plasmonic "pump-probe" method to study semi-transparent nanofluids. <i>Applied Optics</i> , 2013, 52, 6041. | 1.8 | 60 |
| 6 | An algorithm to calculate interfacial area for multiphase mass transfer through the volume-of-fluid method. <i>International Journal of Heat and Mass Transfer</i> , 2016, 100, 573-581. | 4.8 | 50 |
| 7 | Numerical investigation on the velocity fields during droplet formation in a microfluidic T-junction. <i>Chemical Engineering Science</i> , 2016, 139, 99-108. | 3.8 | 50 |
| 8 | Modelling of natural convection in vertical and tilted photovoltaic applications. <i>Energy and Buildings</i> , 2012, 55, 810-822. | 6.7 | 49 |
| 9 | Importance of detailed chemical kinetics on combustion and soot modelling of ventilated and under-ventilated fires in compartment. <i>International Journal of Heat and Mass Transfer</i> , 2016, 96, 171-188. | 4.8 | 48 |
| 10 | Manifold microchannel heat sink topology optimisation. <i>International Journal of Heat and Mass Transfer</i> , 2021, 170, 121025. | 4.8 | 44 |
| 11 | An evaluation of synthetic jets for heat transfer enhancement in air cooled micro-channels. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2007, 17, 263-283. | 2.8 | 43 |
| 12 | Three-dimensional modelling of fluid flow and heat transfer in micro-channels with synthetic jet. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 198-213. | 4.8 | 41 |
| 13 | Heat transfer enhancement in micro-channel with multiple synthetic jets. <i>Applied Thermal Engineering</i> , 2012, 48, 275-288. | 6.0 | 39 |
| 14 | Comparison of detailed soot formation models for sooty and non-sooty flames in an under-ventilated ISO room. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 717-729. | 4.8 | 39 |
| 15 | Optimal design of a natural convection heat sink for small thermoelectric cooling modules. <i>Applied Thermal Engineering</i> , 2019, 160, 114062. | 6.0 | 39 |
| 16 | Radiative heating of superficial human tissues with the use of water-filtered infrared-A radiation: A computational modeling. <i>International Journal of Heat and Mass Transfer</i> , 2015, 85, 311-320. | 4.8 | 38 |
| 17 | SIMPLIFIED APPROACHES TO RADIATIVE TRANSFER SIMULATIONS IN LASER-INDUCED HYPERTHERMIA OF SUPERFICIAL TUMORS. <i>Computational Thermal Sciences</i> , 2013, 5, 521-530. | 0.9 | 38 |
| 18 | Predicting the fire spread rate of a sloped pine needle board utilizing pyrolysis modelling with detailed gas-phase combustion. <i>International Journal of Heat and Mass Transfer</i> , 2018, 125, 310-322. | 4.8 | 36 |

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| 19 | Open manifold microchannel heat sink for high heat flux electronic cooling with a reduced pressure drop. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120395. | 4.8 | 36 |
| 20 | Large-eddy simulation of natural convection in an asymmetrically-heated vertical parallel-plate channel: Assessment of subgrid-scale models. <i>Computers and Fluids</i> , 2012, 59, 101-116. | 2.5 | 34 |
| 21 | Numerical study of fire spread using the level-set method with large eddy simulation incorporating detailed chemical kinetics gas-phase combustion model. <i>Journal of Computational Science</i> , 2018, 24, 8-23. | 2.9 | 33 |
| 22 | On the influences of key modelling constants of large eddy simulations for large-scale compartment fires predictions. <i>International Journal of Computational Fluid Dynamics</i> , 2017, 31, 324-337. | 1.2 | 32 |
| 23 | A critical review on liquid-gas mass transfer models for estimating gaseous emissions from passive liquid surfaces in wastewater treatment plants. <i>Water Research</i> , 2018, 130, 388-406. | 11.3 | 30 |
| 24 | Numerical investigation of passive cooling in open vertical channels. <i>Applied Thermal Engineering</i> , 2012, 39, 121-131. | 6.0 | 26 |
| 25 | Effects of short-pulsed laser radiation on transient heating of superficial human tissues. <i>International Journal of Heat and Mass Transfer</i> , 2014, 78, 488-497. | 4.8 | 26 |
| 26 | Large-Eddy Simulation of Turbulent Natural Convection in Vertical Parallel-Plate Channels. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2011, 59, 259-287. | 0.9 | 25 |
| 27 | Improved volume-of-fluid (VOF) model for predictions of velocity fields and droplet lengths in microchannels. <i>Flow Measurement and Instrumentation</i> , 2016, 51, 105-115. | 2.0 | 23 |
| 28 | Heat transfer from nanoparticles for targeted destruction of infectious organisms. <i>International Journal of Hyperthermia</i> , 2018, 34, 157-167. | 2.5 | 22 |
| 29 | Flow structure generated by two synthetic jets in a channel: Effect of phase and frequency. <i>Sensors and Actuators A: Physical</i> , 2012, 184, 98-111. | 4.1 | 21 |
| 30 | The Effect of Gold Nanorods Clustering on Near-Infrared Radiation Absorption. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1132. | 2.5 | 21 |
| 31 | Vortical Intensification of Heat Transfer in Microchannels with Oval Dimples. <i>Heat Transfer Research</i> , 2010, 41, 413-424. | 1.6 | 19 |
| 32 | Computational Study of Wet Steam Flow to Optimize Steam Ejector Efficiency for Potential Fire Suppression Application. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1486. | 2.5 | 18 |
| 33 | Heat and mass transfer model to predict the operational performance of a steam sterilisation autoclave including products. <i>International Journal of Heat and Mass Transfer</i> , 2015, 90, 800-811. | 4.8 | 17 |
| 34 | Manifold configurations for uniform flow via topology optimisation and flow visualisation. <i>Applied Thermal Engineering</i> , 2021, 183, 116227. | 6.0 | 16 |
| 35 | Numerical modelling of an industrial steam-air sterilisation process with experimental validation. <i>Applied Thermal Engineering</i> , 2015, 75, 122-134. | 6.0 | 15 |
| 36 | Variable Porous Electrode Compression for Redox Flow Battery Systems. <i>Batteries</i> , 2018, 4, 53. | 4.5 | 15 |

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|----|---|-----|-----------|
| 37 | Modeling the Response of Magnetorheological Fluid Dampers under Seismic Conditions. Applied Sciences (Switzerland), 2019, 9, 4189. | 2.5 | 15 |
| 38 | Experimental and numerical investigation of blade-tower interaction noise. Journal of Sound and Vibration, 2019, 443, 362-375. | 3.9 | 15 |
| 39 | Nano-Enhanced Phase Change Materials for Thermal Energy Storage: A Bibliometric Analysis. Energies, 2022, 15, 3426. | 3.1 | 15 |
| 40 | Study of Morphology and Optical Properties of Gold Nanoparticle Aggregates under Different pH Conditions. Langmuir, 2018, 34, 10340-10352. | 3.5 | 14 |
| 41 | A CFD model for the coupling of multiphase, multicomponent and mass transfer physics for micro-scale simulations. International Journal of Heat and Mass Transfer, 2017, 113, 922-934. | 4.8 | 13 |
| 42 | NUMERICAL AND EXPERIMENTAL INVESTIGATION OF UNSTEADY NATURAL CONVECTION IN A VERTICAL OPEN-ENDED CHANNEL. Computational Thermal Sciences, 2012, 4, 443-456. | 0.9 | 13 |
| 43 | On Computational Fluid Dynamics Study of Magnetic Drug Targeting. Journal of Computational Multiphase Flows, 2015, 7, 43-56. | 0.8 | 12 |
| 44 | Numerical Modeling of Magnetic Nanoparticle and Carrier Fluid Interactions Under Static and Double-Shear Flows. IEEE Nanotechnology Magazine, 2017, 16, 798-805. | 2.0 | 12 |
| 45 | Numerical simulation of blade-passage noise. Journal of the Acoustical Society of America, 2017, 142, 1575-1586. | 1.1 | 12 |
| 46 | Numerical investigation of formation and dissolution of CO ₂ bubbles within silicone oil in a cross-junction microchannel. Microfluidics and Nanofluidics, 2017, 21, 1. | 2.2 | 10 |
| 47 | Detailed flow development and indicators of transition in a natural convection flow in a vertical channel. International Journal of Heat and Mass Transfer, 2019, 143, 118502. | 4.8 | 10 |
| 48 | Mass Transport Optimization for Redox Flow Battery Design. Applied Sciences (Switzerland), 2020, 10, 2801. | 2.5 | 10 |
| 49 | Modelling Rayleigh-Bénard convection coupled with electro-vortex flow in liquid metal batteries. Journal of Power Sources, 2021, 501, 229988. | 7.8 | 10 |
| 50 | Large-eddy simulation of turbulent buoyancy-driven flow in a rectangular cavity. International Journal of Heat and Fluid Flow, 2013, 39, 28-41. | 2.4 | 9 |
| 51 | The intersection marker method for 3D interface tracking of deformable surfaces in finite volumes. International Journal for Numerical Methods in Fluids, 2016, 81, 220-244. | 1.6 | 9 |
| 52 | The predominant effect of stroke length on velocity profiles at the exit of axisymmetric synthetic jet actuators. International Journal of Heat and Fluid Flow, 2017, 66, 197-208. | 2.4 | 9 |
| 53 | Impact of external temperature distribution on the convective mass flow rate in a vertical channel – A theoretical and experimental study. International Journal of Heat and Mass Transfer, 2018, 121, 1264-1272. | 4.8 | 9 |
| 54 | Effects of radiation on turbulent natural convection in channel flows. International Journal of Heat and Fluid Flow, 2019, 77, 122-133. | 2.4 | 9 |

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|----|---|------|-----------|
| 55 | EFFECT OF OPERATING FREQUENCY ON HEAT TRANSFER IN A MICROCHANNEL WITH SYNTHETIC JET. Computational Thermal Sciences, 2009, 1, 361-383. | 0.9 | 9 |
| 56 | RECONSTRUCTION AND ADVECTION OF A MOVING INTERFACE IN THREE DIMENSIONS ON A FIXED GRID. Numerical Heat Transfer, Part B: Fundamentals, 1998, 34, 121-138. | 0.9 | 8 |
| 57 | Wind friction parametrisation used in emission models for wastewater treatment plants: A critical review. Water Research, 2017, 124, 49-66. | 11.3 | 8 |
| 58 | Bubble flow simulations using the intersection marker (ISM) interface tracking method. International Journal of Numerical Methods for Heat and Fluid Flow, 2018, 28, 118-137. | 2.8 | 8 |
| 59 | Thermal modelling of controlled scalp hypothermia using a thermoelectric cooling cap. Journal of Thermal Biology, 2018, 76, 8-20. | 2.5 | 8 |
| 60 | Evaluation of an adaptive tutorial supporting the teaching of mathematics. European Journal of Engineering Education, 2019, 44, 787-804. | 2.3 | 8 |
| 61 | Numerical and experimental studies of a channel flow with multiple circular synthetic jets. EPJ Web of Conferences, 2012, 25, 01094. | 0.3 | 7 |
| 62 | Enhanced Reactant Distribution in Redox Flow Cells. Molecules, 2019, 24, 3877. | 3.8 | 7 |
| 63 | Natural Convection in a PV-Integrated Double-Skin Façade using Large-Eddy Simulation. Procedia Engineering, 2011, 14, 3277-3284. | 1.2 | 6 |
| 64 | Numerical Computation and Investigation of the Characteristics of Microscale Synthetic Jets. Modelling and Simulation in Engineering, 2011, 2011, 1-8. | 0.7 | 6 |
| 65 | Large Eddy Simulation of turbulent buoyancy-driven flow with alternating staggered heating walls. Applied Thermal Engineering, 2015, 89, 558-568. | 6.0 | 6 |
| 66 | Transitional natural convection flow in a vertical channel: Impact of the external thermal stratification. International Journal of Heat and Mass Transfer, 2020, 151, 119476. | 4.8 | 6 |
| 67 | Enabling contactless rapid on-demand debonding and rebonding using hysteresis heating of ferrimagnetic nanoparticles. Materials and Design, 2021, 210, 110076. | 7.0 | 6 |
| 68 | Modelling of binary alloy solidification in the MEPHISTO experiment. Comptes Rendus - Mecanique, 2004, 332, 403-411. | 2.1 | 5 |
| 69 | Influence of the fetch parameter on results from empirical correlations for estimating odorous emissions at passive liquid surfaces. Water Science and Technology, 2016, 74, 2384-2391. | 2.5 | 5 |
| 70 | High order accurate dual-phase-lag numerical model for microscopic heating in multiple domains. International Communications in Heat and Mass Transfer, 2016, 78, 21-28. | 5.6 | 5 |
| 71 | Effect of heat loss on turbulent buoyancy-driven flow in a rectangular cavity using the large-eddy simulation. Numerical Heat Transfer; Part A: Applications, 2016, 70, 689-706. | 2.1 | 5 |
| 72 | EFFECT OF VARIABLE PROPERTIES ON HEAT TRANSFER IN A MICRO-CHANNEL WITH A SYNTHETIC JET. Computational Thermal Sciences, 2013, 5, 369-388. | 0.9 | 5 |

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| 73 | Simulation of Blood Flow and Nanoparticle Transport in a Stenosed Carotid Bifurcation and Pseudo-Arteriole. Journal of Computational Multiphase Flows, 2012, 4, 85-101. | 0.8 | 4 |
| 74 | Real-time monitoring of heat transfer between gold nanoparticles and tethered bilayer lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183334. | 2.6 | 4 |
| 75 | Heat Generation in Irradiated Gold Nanoparticle Solutions for Hyperthermia Applications. Processes, 2021, 9, 368. | 2.8 | 4 |
| 76 | Modelling atmospheric emissions from wastewater treatment plants: Implications of land-to-water roughness change. Science of the Total Environment, 2021, 792, 148330. | 8.0 | 4 |
| 77 | Eddie Leonardi Memorial Lecture: "Natural Convection From Earth to Space", Journal of Heat Transfer, 2012, 134, . | 2.1 | 3 |
| 78 | Numerical modelling of magnetic nanoparticle and carrier fluid interactions. , 2016, , . | | 3 |
| 79 | Directivity of blade-tower interaction noise. JASA Express Letters, 2021, 1, . | 1.1 | 3 |
| 80 | LASER INDUCED HYPERTHERMIA OF SUPERFICIAL TUMORS: A TRANSIENT THERMAL MODEL FOR INDIRECT HEATING STRATEGY. Computational Thermal Sciences, 2012, 4, 457-475. | 0.9 | 3 |
| 81 | ANALYSIS OF THE GROWTH OF SPHERICAL AIR BUBBLES IN WATER DUE TO THE INTERFACIAL MASS TRANSFER BY A 3D FRONT-TRACKING METHOD. , 2018, , . | | 3 |
| 82 | Tethered Bilayer Lipid Membranes to Monitor Heat Transfer between Gold Nanoparticles and Lipid Membranes. Journal of Visualized Experiments, 2020, , . | 0.3 | 3 |
| 83 | Compressibility Effects in Micro Synthetic Jets. , 2004, , 273. | | 2 |
| 84 | Computational Fluid Dynamics and Its Applications 2012. Modelling and Simulation in Engineering, 2012, 2012, 1-2. | 0.7 | 2 |
| 85 | Natural Convection in an Asymmetrically-Heated Open-Ended Channel: A Three-Dimensional Computational Study. , 2013, , . | | 2 |
| 86 | Controlling the clustering behavior of particulate colloidal systems using alternating and rotating magnetic fields. Computational Particle Mechanics, 0, , 1. | 3.0 | 2 |
| 87 | Three-Dimensional Simulation of Vapor Bubble Growth in Superheated Water Due to the Convective Action by an Interface Tracking Method. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, . | 1.5 | 2 |
| 88 | Heat Generation in Gold Nanorods Solutions due to Absorption of Near-Infrared Radiation. , 2017, , . | | 2 |
| 89 | Unsteady Flow Physics of the Blade-Tower Interaction of a Pylon-Mounted Fan. , 2017, , . | | 2 |
| 90 | An Experimental and Numerical Study of a Micro-Synthetic Jet in a Shallow Cavity. , 2008, , . | | 1 |

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| 91 | A Simplified Model of Laser Hyperthermia of Superficial Tumors Including Variation of Human Tissue Optical Properties With Thermal Damage. , 2012, , . | | 1 |
| 92 | Three-dimensional modeling of flow and deformation in idealized mild and moderate arterial vessels. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1395-1408. | 1.6 | 1 |
| 93 | Gravity-Driven Bubble Rise Simulation. , 2019, , 1-37. | | 1 |
| 94 | NATURAL CONVECTIVE FLOW ANALYSIS IN VERTICAL CHANNEL. , 2017, , . | | 1 |
| 95 | Eddie Leonardi Memorial Lecture: Natural Convection from Earth to Space. , 2010, , . | | 1 |
| 96 | The Effect of Orientation on the Performance of Small Free-Convection Heat Sinks for Use With a Thermoelectric Cryotherapy Device. Journal of Thermal Science and Engineering Applications, 2021, 13, . | 1.5 | 1 |
| 97 | An Experimental Study of a Synthetic Jet in Cross Flow in a Microchannel. , 2010, , . | | 0 |
| 98 | Advances in Computational Fluid Dynamics and Its Applications. Modelling and Simulation in Engineering, 2011, 2011, 1-3. | 0.7 | 0 |
| 99 | Forced Convection in Micro-Channel With Synthetic Jet: Effect of Operating Frequency. , 2012, , . | | 0 |
| 100 | Preface: Advanced Thermal Strategies in Cancer Therapy and Diagnostics. Critical Reviews in Biomedical Engineering, 2020, 48, v-vii. | 0.9 | 0 |
| 101 | Numerical Investigation of Rising Vapour Bubble in Convective Boiling Using an Advanced 3D Hybrid Numerical Method. , 0, , . | | 0 |
| 102 | Three-Dimensional Modelling of Heat Transfer in Micro-Channels With Synthetic Jet. , 2010, , . | | 0 |
| 103 | EFFECT OF CHANNEL PRESSURE DIFFERENCE IN HEAT TRANSFER ENHANCEMENT IN MICRO-CHANNEL WITH SYNTHETIC JET. , 2012, , . | | 0 |
| 104 | LASER INDUCED HYPERTHERMIA OF SUPERFICIAL TUMORS: A TRANSIENT THERMAL MODEL FOR INDIRECT HEATING STRATEGY. , 2012, , . | | 0 |
| 105 | NUMERICAL AND EXPERIMENTAL INVESTIGATION OF UNSTEADY NATURAL CONVECTION IN AN OPEN CHANNEL. , 2012, , . | | 0 |
| 106 | Three-Dimensional Computational Study of Natural Convection in a Non-Uniformly Heated Vertical Open-Ended Channel. , 2014, , . | | 0 |
| 107 | Absorption of Short-Pulsed Laser Radiation in Superficial Human Tissues: Transient vs Quasi-Steady Radiative Transfer. , 2014, , . | | 0 |
| 108 | Heat and Mass Transfer Modelling of an Industrial Autoclave to Minimise Steam Consumption. , 2014, , . | | 0 |

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|-----|---|----|-----------|
| 109 | Heat Generation in Gold Nanorods Solutions due to Absorption of Near-Infrared Radiation. , 2017, , . | | 0 |
| 110 | IMPACT OF EXTERNAL TEMPERATURE DISTRIBUTION ON THE TURBULENT AND THERMAL FIELDS IN A VERTICAL UNIFORMLY HEATED CHANNEL. , 2018, , . | | 0 |
| 111 | Validation Problems in Computational Modelling of Natural Convection. , 2020, , 689-718. | | 0 |