

Carlos H Hidrovo

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4348907/publications.pdf>

Version: 2024-02-01

63
papers

985
citations

430754

18
h-index

454834

30
g-index

64
all docs

64
docs citations

64
times ranked

1289
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Significance of the micropores electro-sorption resistance in capacitive deionization systems. <i>Water Research</i> , 2020, 169, 115286. | 5.3 | 15 |
| 2 | Study of drag reduction using periodic spanwise grooves on incompressible viscous laminar flows. <i>Physical Review Fluids</i> , 2020, 5, . | 1.0 | 12 |
| 3 | Capacitive Deionization Systems for Water Desalination Applications: Role of the Electrosorption Resistance and Non-Electrostatic Binding in the Porous Electrodes. <i>ECS Meeting Abstracts</i> , 2019, , . | 0.0 | 0 |
| 4 | Activated Carbon-Based Electrodes with Engineered Microstructure for Capacitive Deionization (CDI) of Aqueous Solutions. <i>ECS Meeting Abstracts</i> , 2019, , . | 0.0 | 0 |
| 5 | An integrated gas-liquid droplet microfluidic platform for digital sampling and detection of airborne targets. <i>Sensors and Actuators B: Chemical</i> , 2018, 267, 279-293. | 4.0 | 17 |
| 6 | A parametric study of multiscale transport phenomena and performance characteristics of capacitive deionization systems. <i>Desalination</i> , 2018, 438, 24-36. | 4.0 | 19 |
| 7 | Dual fluorescence ratiometric technique for micromixing characterization. <i>Experiments in Fluids</i> , 2018, 59, 1. | 1.1 | 0 |
| 8 | Liquid-in-gas droplet microfluidics; experimental characterization of droplet morphology, generation frequency, and monodispersity in a flow-focusing microfluidic device. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 075020. | 1.5 | 22 |
| 9 | A thermophysical battery for storage-based climate control. <i>Applied Energy</i> , 2017, 189, 31-43. | 5.1 | 47 |
| 10 | An Ultra-High-Throughput Flow-Focusing Microfluidic Device for Creation of Liquid Droplets in Air. , 2017, , . | | 0 |
| 11 | FLUIDS BY MEANS OF A TWO-DYE LASER INDUCED FLUORESCENCE RATIOMETRIC SCHEME: 2D THICKNESS AND TEMPERATURE MAPPING. <i>Journal of Flow Visualization and Image Processing</i> , 2017, 24, 347-367. | 0.3 | 0 |
| 12 | Generation of Uniform Liquid Droplets in a Microfluidic Chip Using a High-Speed Gaseous Microflow. , 2016, , . | | 3 |
| 13 | Flow regime mapping of high inertial gas-liquid droplet microflows in flow-focusing geometries. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1. | 1.0 | 20 |
| 14 | Experimental Investigation of Geometrical Parameters for Gas-Liquid Droplet Generation in Flow-Focusing Configurations. , 2015, , . | | 0 |
| 15 | Thermal Characterization of Microheated Microchannels With Spatially Resolved Two-Color Fluorescence Thermometry. <i>Journal of Microelectromechanical Systems</i> , 2015, 24, 115-125. | 1.7 | 3 |
| 16 | The improved resistance of PDMS to pressure-induced deformation and chemical solvent swelling for microfluidic devices. <i>Microelectronic Engineering</i> , 2014, 124, 66-75. | 1.1 | 52 |
| 17 | Laser-induced fluorescence visualization of ion transport in a pseudo-porous capacitive deionization microstructure. <i>Microfluidics and Nanofluidics</i> , 2014, 16, 109-122. | 1.0 | 11 |
| 18 | Optimization of capillary flow through square micropillar arrays. <i>International Journal of Multiphase Flow</i> , 2014, 58, 39-51. | 1.6 | 34 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Micro- and Nanoscale Measurement Methods for Phase Change Heat Transfer on Planar and Structured Surfaces. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2014, 18, 270-287. | 1.4 | 11 |
| 20 | Capillary flow through rectangular micropillar arrays. <i>International Journal of Heat and Mass Transfer</i> , 2014, 75, 710-717. | 2.5 | 28 |
| 21 | Experimental Investigation of Inertial Mixing in Colliding Droplets. <i>Heat Transfer Engineering</i> , 2013, 34, 120-130. | 1.2 | 23 |
| 22 | Energetic performance optimization of a capacitive deionization system operating with transient cycles and brackish water. <i>Desalination</i> , 2013, 314, 130-138. | 4.0 | 71 |
| 23 | Humidity Effects on the Wetting Characteristics of Poly(<i>N</i> -isopropylacrylamide) during a Lower Critical Solution Transition. <i>Langmuir</i> , 2013, 29, 8116-8124. | 1.6 | 12 |
| 24 | Characterization of Ion Transport and -Sorption in a Carbon Based Porous Electrode for Desalination Purposes. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2013, 135, . | 0.8 | 5 |
| 25 | Macro Analysis of the Electro-Adsorption Process in Low Concentration NaCl Solutions for Water Desalination Applications. <i>Journal of the Electrochemical Society</i> , 2013, 160, E13-E21. | 1.3 | 32 |
| 26 | Enhancement of the thermo-mechanical properties of PDMS molds for the hot embossing of PMMA microfluidic devices. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 095024. | 1.5 | 86 |
| 27 | Droplet Detachment Mechanism in a High-Speed Gaseous Microflow. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2013, 135, . | 0.8 | 19 |
| 28 | A Novel Thermo-Hydraulic Test Platform for Micropillared Array Thermal Wick Optimization. , 2012, , . | | 2 |
| 29 | Pressure and partial wetting effects on superhydrophobic friction reduction in microchannel flow. <i>Physics of Fluids</i> , 2012, 24, . | 1.6 | 51 |
| 30 | Droplet collision mixing diagnostics using single fluorophore LIF. <i>Experiments in Fluids</i> , 2012, 53, 1301-1316. | 1.1 | 14 |
| 31 | Thermo-Wetting and Friction Reduction Characterization of Microtextured Superhydrophobic Surfaces. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2012, 134, . | 0.8 | 5 |
| 32 | Impact of channel geometry on two-phase flow in fuel cell microchannels. <i>Journal of Power Sources</i> , 2011, 196, 5012-5020. | 4.0 | 20 |
| 33 | Experimental Investigation of Inertial Mixing in Droplets. , 2011, , . | | 1 |
| 34 | Stability Analysis of Cassie-Baxter State Under Pressure Driven Flow. , 2010, , . | | 3 |
| 35 | Characterization of Capillary Flow Within a Homogenously Dispersed Array of Vertical Micropillars. , 2010, , . | | 1 |
| 36 | Quantification of Inertial Droplet Collision Mixing Rates in Confined Microchannel Flows Using Differential Fluorescence Measurements. , 2010, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Nanoscale Wicking Structures. , 2009, , . | | 0 |
| 38 | Superhydrophobic Friction Reduction Microtextured Surfaces. , 2009, , . | | 1 |
| 39 | Investigation of Nanopillar Wicking Capabilities for Heat Pipes Applications. , 2009, , . | | 6 |
| 40 | An Experimental Investigation of Droplet Detachment in High-Speed Microchannel Air Flow. , 2009, , . | | 2 |
| 41 | In-Situ Neutron Radiography of Water Freezing in a GDL. , 2009, , . | | 0 |
| 42 | 3-D numerical simulation of contact angle hysteresis for microscale two phase flow. International Journal of Multiphase Flow, 2008, 34, 690-705. | 1.6 | 107 |
| 43 | Flow Regime Evolution in Long, Serpentine Microchannels With a Porous Carbon Paper Wall. , 2008, , . | | 0 |
| 44 | 3-D Numerical Simulation of Contact Angle Hysteresis for Slug Flow in Microchannel. , 2007, , 955. | | 0 |
| 45 | Vapor-Venting, Micromachined Heat Exchanger for Electronics Cooling. , 2007, , 951. | | 7 |
| 46 | Measurement and modeling of liquid film thickness evolution in stratified two-phase microchannel flows. Applied Thermal Engineering, 2007, 27, 1722-1727. | 3.0 | 24 |
| 47 | Investigation of two-phase transport phenomena in microchannels using a microfabricated experimental structure. Applied Thermal Engineering, 2007, 27, 1728-1733. | 3.0 | 5 |
| 48 | Compact Model of Slug Flow in Microchannels. , 2007, , . | | 1 |
| 49 | Two-Phase Microfluidics for Semiconductor Circuits and Fuel Cells. Heat Transfer Engineering, 2006, 27, 53-63. | 1.2 | 15 |
| 50 | A hybrid method for bubble geometry reconstruction in two-phase microchannels. Experiments in Fluids, 2006, 40, 847-858. | 1.1 | 14 |
| 51 | ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. International Journal of High Speed Electronics and Systems, 2006, 16, 301-313. | 0.3 | 21 |
| 52 | ADVANCED COOLING TECHNOLOGIES FOR MICROPROCESSORS. , 2006, , . | | 1 |
| 53 | Water Slug Detachment in Two-Phase Hydrophobic Microchannel Flows. , 2005, , 709. | | 9 |
| 54 | Flow Structures and Frictional Characteristics on Two-Phase Flow in Microchannels in PEM Fuel Cells. , 2005, , 899. | | 2 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Microchannel Experimental Structure for Measuring Temperature Fields During Convective Boiling. , 2004, , 699. | | 4 |
| 56 | Excitation nonlinearities in emission reabsorption laser-induced fluorescence techniques. Applied Optics, 2004, 43, 894. | 2.1 | 18 |
| 57 | Experimental Investigation and Visualization of Two-Phase Flow and Water Transport in Microchannels. , 2004, , . | | 4 |
| 58 | 1D Homogeneous Modeling of Microchannel Two-Phase Flow With Distributed Liquid Water Injection From Walls. , 2004, , . | | 3 |
| 59 | 2D THICKNESS AND TEMPERATURE MAPPING OF FLUIDS BY MEANS OF A TWO-DYE LASER INDUCED FLUORESCENCE RATIOMETRIC SCHEME. Journal of Flow Visualization and Image Processing, 2002, 9, 21. | 0.3 | 5 |
| 60 | Emission reabsorption laser induced fluorescence (ERLIF) film thickness measurement. Measurement Science and Technology, 2001, 12, 467-477. | 1.4 | 82 |
| 61 | Optical diversity by nanoscale actuation. , 0, , . | | 1 |
| 62 | Nanostructured origami. , 0, , . | | 10 |
| 63 | Development and Calibration of a Two-Dye Fluorescence System for Use in Two-Phase Micro Flow Thermometry. , 0, , . | | 2 |