

Donald P Gaver

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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|-------------------|-------------------------|----------------|-----------------|
| 43 papers | 1,721 citations | 21 h-index | 41 g-index |
| 46 ext. papers | 1,889 ext. citations | 3.8 avg, IF | 4.59 L-index |

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 43 | Learning Environments and Evidence-Based Practices in Bioengineering and Biomedical Engineering. <i>Biomedical Engineering Education</i> , 2022 , 2, 1 | | 0 |
| 42 | 1483: EXCESSIVE DYNAMIC AND STATIC STRAIN ACT SYNERGISTICALLY TO INCREASE LUNG INFLAMMATION. <i>Critical Care Medicine</i> , 2022 , 50, 745-745 | 1.4 | |
| 41 | Electric Cell-Substrate Impedance Sensing (ECIS) as a Platform for Evaluating Barrier-Function Susceptibility and Damage from Pulmonary Atelectrauma. <i>Biosensors</i> , 2022 , 12, 390 | 5.9 | 0 |
| 40 | Atelectrauma Versus Volutrauma: A Tale of Two Time-Constants 2020 , 2, e0299 | | 9 |
| 39 | The POOR Get POORer: A Hypothesis for the Pathogenesis of Ventilator-induced Lung Injury. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2020 , 202, 1081-1087 | 10.2 | 19 |
| 38 | Surfactant-Mediated Airway and Acinar Interactions in a Multi-Scale Model of a Healthy Lung. <i>Frontiers in Physiology</i> , 2020 , 11, 941 | 4.6 | 1 |
| 37 | Microscale to mesoscale analysis of parenchymal tethering: the effect of heterogeneous alveolar pressures on the pulmonary mechanics of compliant airways. <i>Journal of Applied Physiology</i> , 2019 , 126, 1204-1213 | 3.7 | 4 |
| 36 | Microscale distribution and dynamic surface tension of pulmonary surfactant normalize the recruitment of asymmetric bifurcating airways. <i>Journal of Applied Physiology</i> , 2017 , 122, 1167-1178 | 3.7 | 4 |
| 35 | The influence of tethering and gravity on the stability of compliant liquid-lined airways. <i>Journal of Biomechanics</i> , 2017 , 50, 228-233 | 2.9 | 2 |
| 34 | Estimation of the Pressure Drop Required for Lymph Flow through Initial Lymphatic Networks. <i>Lymphatic Research and Biology</i> , 2016 , 14, 62-9 | 2.3 | 12 |
| 33 | Reduced-Dimension Modeling Approach for Simulating Recruitment/De-recruitment Dynamics in the Lung. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 3619-3631 | 4.7 | 5 |
| 32 | The unusual symmetric reopening effect induced by pulmonary surfactant. <i>Journal of Applied Physiology</i> , 2014 , 116, 635-44 | 3.7 | 6 |
| 31 | A model of surfactant-induced surface tension effects on the parenchymal tethering of pulmonary airways. <i>Journal of Biomechanics</i> , 2013 , 46, 319-28 | 2.9 | 13 |
| 30 | The influence of surfactant on the propagation of a semi-infinite bubble through a liquid-filled compliant channel. <i>Journal of Fluid Mechanics</i> , 2012 , 698, 125-159 | 3.7 | 8 |
| 29 | In situ enhancement of pulmonary surfactant function using temporary flow reversal. <i>Journal of Applied Physiology</i> , 2012 , 112, 149-58 | 3.7 | 21 |
| 28 | Atelectrauma disrupts pulmonary epithelial barrier integrity and alters the distribution of tight junction proteins ZO-1 and claudin 4. <i>Journal of Applied Physiology</i> , 2012 , 113, 1377-87 | 3.7 | 28 |
| 27 | Lagrangian transport properties of pulmonary interfacial flows. <i>Journal of Fluid Mechanics</i> , 2011 , 705, 234-257 | 3.7 | 5 |

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| 26 | Agent-based simulations of complex droplet pattern formation in a two-branch microfluidic network. <i>Lab on A Chip</i> , 2010 , 10, 303-12 | 7.2 | 28 |
| 25 | Biofluid mechanics of special organs and the issue of system control. Sixth International Bio-Fluid Mechanics Symposium and Workshop, March 28-30, 2008 Pasadena, California. <i>Annals of Biomedical Engineering</i> , 2010 , 38, 1204-15 | 4.7 | 7 |
| 24 | EPIV measurements of the ensemble flow fields surrounding a migrating semi-infinite bubble. <i>Experiments in Fluids</i> , 2009 , 47, 309-320 | 2.5 | 13 |
| 23 | Physicochemical effects enhance surfactant transport in pulsatile motion of a semi-infinite bubble. <i>Biophysical Journal</i> , 2009 , 96, 312-27 | 2.9 | 10 |
| 22 | EVALUATION OF INTERFACIAL FLUID DYNAMICAL STRESSES USING THE IMMERSED BOUNDARY METHOD. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2009 , 11, 519-540 | 1.3 | 10 |
| 21 | Biomechanics of liquid-epithelium interactions in pulmonary airways. <i>Respiratory Physiology and Neurobiology</i> , 2008 , 163, 232-43 | 2.8 | 67 |
| 20 | The Pulsatile Propagation of a Finger of Air Within a Fluid-Occluded Cylindrical Tube. <i>Journal of Fluid Mechanics</i> , 2008 , 601, 1-23 | 3.7 | 17 |
| 19 | The pulsatile motion of a semi-infinite bubble in a channel: flow fields, and transport of an inactive surface-associated contaminant. <i>Journal of Fluid Mechanics</i> , 2005 , 537, 1 | 3.7 | 13 |
| 18 | Unsteady bubble propagation in a flexible channel: predictions of a viscous stick-slip instability. <i>Journal of Fluid Mechanics</i> , 2005 , 528, 53-86 | 3.7 | 25 |
| 17 | Bio-fluid mechanics of the pulmonary system. <i>Annals of Biomedical Engineering</i> , 2005 , 33, 1681-8 | 4.7 | 22 |
| 16 | Pressure gradient, not exposure duration, determines the extent of epithelial cell damage in a model of pulmonary airway reopening. <i>Journal of Applied Physiology</i> , 2004 , 97, 269-76 | 3.7 | 100 |
| 15 | Mechanisms of surface-tension-induced epithelial cell damage in a model of pulmonary airway reopening. <i>Journal of Applied Physiology</i> , 2003 , 94, 770-83 | 3.7 | 254 |
| 14 | The influence of non-equilibrium surfactant dynamics on the flow of a semi-infinite bubble in a rigid cylindrical capillary tube. <i>Journal of Fluid Mechanics</i> , 2003 , 478, 165-196 | 3.7 | 69 |
| 13 | Modeling of Mass Transport into Immiscible Polymeric Blends. <i>Macromolecules</i> , 2003 , 36, 9216-9229 | 5.5 | 13 |
| 12 | Ventilator-induced lung injury: in vivo and in vitro mechanisms. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2002 , 283, L678-82 | 5.8 | 100 |
| 11 | A Dual-Reciprocity Boundary Element Method for Evaluating Bulk Convective Transport of Surfactant in Free-Surface Flows. <i>Journal of Computational Physics</i> , 2001 , 171, 534-559 | 4.1 | 22 |
| 10 | A Theoretical Model of Pulmonary Surfactant Multilayer Collapse under Oscillating Area Conditions. <i>Journal of Colloid and Interface Science</i> , 2000 , 229, 353-364 | 9.3 | 45 |
| 9 | An investigation of pulmonary surfactant physicochemical behavior under airway reopening conditions. <i>Journal of Applied Physiology</i> , 2000 , 88, 493-506 | 3.7 | 46 |

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| 8 | A theoretical model study of the influence of fluid stresses on a cell adhering to a microchannel wall. <i>Biophysical Journal</i> , 1998 , 75, 721-33 | 2.9 | 140 |
| 7 | The influence of surfactant on two-phase flow in a flexible-walled channel under bulk equilibrium conditions. <i>Physics of Fluids</i> , 1998 , 10, 1846-1863 | 4.4 | 45 |
| 6 | The steady motion of a semi-infinite bubble through a flexible-walled channel. <i>Journal of Fluid Mechanics</i> , 1996 , 319, 25 | 3.7 | 102 |
| 5 | An experimental model investigation of the opening of a collapsed untethered pulmonary airway. <i>Journal of Biomechanical Engineering</i> , 1995 , 117, 245-53 | 2.1 | 36 |
| 4 | A microscale model of bacterial swimming, chemotaxis and substrate transport. <i>Journal of Theoretical Biology</i> , 1995 , 177, 325-40 | 2.3 | 71 |
| 3 | Droplet spreading on a thin viscous film. <i>Journal of Fluid Mechanics</i> , 1992 , 235, 399 | 3.7 | 107 |
| 2 | The dynamics of a localized surfactant on a thin film. <i>Journal of Fluid Mechanics</i> , 1990 , 213, 127 | 3.7 | 171 |
| 1 | An experimental investigation of oscillating flow in a tapered channel. <i>Journal of Fluid Mechanics</i> , 1986 , 172, 47 | 3.7 | 37 |