Amy L Throckmorton

List of Publications by Year
in descending order

65 papers	1,033 citations	471509 17 h-index	454955 30 g-index
65 all docs	65 docs citations	65 times ranked	604 citing authors

#	Article	IF	Citations
1	Computational Fluid Dynamics Prediction of Blood Damage in a Centrifugal Pump. Artificial Organs, 2003, 27, 938-941.	1.9	116
2	Quantitative Evaluation of Blood Damage in a Centrifugal VAD by Computational Fluid Dynamics. Journal of Fluids Engineering, Transactions of the ASME, 2004, 126, 410-418.	1.5	74
3	Fluidâ€"structure interaction modeling in cardiovascular medicine â€" A systematic review 2017â€"2019. Medical Engineering and Physics, 2020, 78, 1-13.	1.7	57
4	Pediatric Circulatory Support Systems. ASAIO Journal, 2002, 48, 216-221.	1.6	48
5	Numerical, Hydraulic, and Hemolytic Evaluation of an Intravascular Axial Flow Blood Pump to Mechanically Support Fontan Patients. Annals of Biomedical Engineering, 2011, 39, 324-336.	2.5	47
6	Pediatric Circulatory Support: Current Strategies and Future Directions. Biventricular and Univentricular Mechanical Assistance. ASAIO Journal, 2008, 54, 491-497.	1.6	39
7	Numerical Design and Experimental Hydraulic Testing of an Axial Flow Ventricular Assist Device for Infants and Children. ASAIO Journal, 2007, 53, 754-761.	1.6	38
8	Intravascular Mechanical Cavopulmonary Assistance for Patients With Failing Fontan Physiology. Artificial Organs, 2009, 33, 977-987.	1.9	37
9	Mechanical Circulatory Support Devices for Pediatric Patients With Congenital Heart Disease. Artificial Organs, 2017, 41, E1-E14.	1.9	33
10	Design and Transient Computational Fluid Dynamics Study of a Continuous Axial Flow Ventricular Assist Device. ASAIO Journal, 2004, 50, 215-224.	1.6	31
11	Computational Design and Experimental Performance Testing of an Axial-Flow Pediatric Ventricular Assist Device. ASAIO Journal, 2005, 51, 629-635.	1.6	30
12	A Viable Therapeutic Option: Mechanical Circulatory Support of the Failing Fontan Physiology. Pediatric Cardiology, 2013, 34, 1357-1365.	1.3	30
13	Mechanical Cavopulmonary Assistance of a Patient-Specific Fontan Physiology: Numerical Simulations, Lumped Parameter Modeling, and Suction Experiments. Artificial Organs, 2011, 35, 1036-1047.	1.9	29
14	CFD Analysis of a Mag-Lev Ventricular Assist Device for Infants and Children: Fourth Generation Design. ASAIO Journal, 2008, 54, 423-431.	1.6	28
15	Methods of Failure and Reliability Assessment for Mechanical Heart Pumps. Artificial Organs, 2005, 29, 15-25.	1.9	26
16	The medical physics of ventricular assist devices. Reports on Progress in Physics, 2005, 68, 545-576.	20.1	25
17	Design of a Protective Cage for an Intravascular Axial Flow Blood Pump to Mechanically Assist the Failing Fontan. Artificial Organs, 2009, 33, 611-621.	1.9	25
18	Hybrid Continuousâ€Flow Total Artificial Heart. Artificial Organs, 2018, 42, 500-509.	1.9	19

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19	Dualâ€Pump Support in the Inferior and Superior Vena Cavae of a Patientâ€Specific <scp>F</scp>ontan Physiology. Artificial Organs, 2013, 37, 513-522.	1.9	18
20	Clinical implications of LDH isoenzymes in hemolysis and continuousâ€flow left ventricular assist deviceâ€induced thrombosis. Artificial Organs, 2020, 44, 231-238.	1.9	18
21	Hydraulic Testing of Intravascular Axial Flow Blood Pump Designs With a Protective Cage of Filaments for Mechanical Cavopulmonary Assist. ASAIO Journal, 2010, 56, 17-23.	1.6	16
22	Total Artificial Hearts-Past, Current, and Future. Journal of Cardiac Surgery, 2015, 30, 856-864.	0.7	16
23	Design of Axial Blood Pumps for Patients With Dysfunctional <scp>F</scp>ontan Physiology: Computational Studies and Performance Testing. Artificial Organs, 2015, 39, 34-42.	1.9	15
24	Fluid Force Predictions and Experimental Measurements for a Magnetically Levitated Pediatric Ventricular Assist Device. Artificial Organs, 2007, 31, 359-368.	1.9	14
25	Interaction of an Idealized Cavopulmonary Circulation With Mechanical Circulatory Assist Using an Intravascular Rotary Blood Pump. Artificial Organs, 2010, 34, 816-827.	1.9	14
26	Steady Flow Analysis of Mechanical Cavopulmonary Assistance in MRIâ€Derived Patientâ€Specific Fontan Configurations. Artificial Organs, 2012, 36, 972-980.	1.9	14
27	Beyond the <scp>VAD</scp>: Human Factors Engineering for Mechanically Assisted Circulation in the 21st Century. Artificial Organs, 2016, 40, 539-548.	1.9	13
28	Microscale impeller pump for recirculating flow in organs-on-chip and microreactors. Lab on A Chip, 2022, 22, 605-620.	6.0	13
29	Laser Flow Measurements in an Idealized Total Cavopulmonary Connection With Mechanical Circulatory Assistance. Artificial Organs, 2011, 35, 1052-1064.	1.9	12
30	Pressureâ€"Flow Experimental Performance of New Intravascular Blood Pump Designs for Fontan Patients. Artificial Organs, 2016, 40, 233-242.	1.9	12
31	A Formal Task-Analytic Approach to Medical Device Alarm Troubleshooting Instructions. IEEE Transactions on Human-Machine Systems, 2016, 46, 53-65.	3.5	12
32	Controlled Pitch-Adjustment of Impeller Blades for an Intravascular Blood Pump. ASAIO Journal, 2012, 58, 382-389.	1.6	9
33	Twisted Cardiovascular Cages for Intravascular Axial Flow Blood Pumps to Support the Fontan Physiology. International Journal of Artificial Organs, 2012, 35, 369-375.	1.4	9
34	Uniquely shaped cardiovascular stents enhance the pressure generation of intravascular blood pumps. Journal of Thoracic and Cardiovascular Surgery, 2012, 144, 704-709.	0.8	9
35	Mechanical Circulatory Support of the Right Ventricle for Adult and Pediatric Patients With Heart Failure. ASAIO Journal, 2019, 65, 106-116.	1.6	9
36	New versatile dualâ€support pediatric heart pump. Artificial Organs, 2019, 43, 1055-1064.	1.9	9

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37	Physics-driven impeller designs for a novel intravascular blood pump for patients with congenital heart disease. Medical Engineering and Physics, 2016, 38, 622-632.	1.7	8
38	Technology landscape of pediatric mechanical circulatory support devices: A systematic review 2010â€“2021. Artificial Organs, 2022, 46, 1475-1490.	1.9	8
39	Experimental Measurements of Energy Augmentation for Mechanical Circulatory Assistance in a Patient-Specific Fontan Model. Artificial Organs, 2014, 38, n/a-n/a.	1.9	7
40	Flexible Impeller Blades in an Axial Flow Pump for Intravascular Cavopulmonary Assistance of the Fontan Physiology. Cardiovascular Engineering and Technology, 2010, 1, 244-255.	1.6	6
41	Threeâ€Dimensional Laser Flow Measurements of a Patientâ€Specific <scp>F</scp>ontan Physiology With Mechanical Circulatory Assistance. Artificial Organs, 2015, 39, E67-78.	1.9	6
42	Fluidâ€structure interaction analysis of a collapsible axial flow blood pump impeller and protective cage for Fontan patients. Artificial Organs, 2020, 44, E337-E347.	1.9	5
43	Filament Support Spindle for an Intravascular Cavopulmonary Assist Device. Artificial Organs, 2010, 34, 1039-1044.	1.9	4
44	Stereo-Particle Image Velocimetry Measurements of a Patient-Specific Fontan Physiology Utilizing Novel Pressure Augmentation Stents. Artificial Organs, 2015, 39, 228-236.	1.9	4
45	Externally applied compression therapy for Fontan patients. Translational Pediatrics, 2018, 7, 14-22.	1.2	3
46	Integrated longâ€term multifunctional pediatric mechanical circulatory assist device. Artificial Organs, 2021, 45, E65-E78.	1.9	3
47	Forward-thinking design solutions for mechanical circulatory support: multifunctional hybrid continuous-flow ventricular assist device technology. Annals of Cardiothoracic Surgery, 2021, 10, 383-385.	1.7	3
48	Steady and Transient Flow Analysis of a Magnetically Levitated Pediatric VAD: Time Varying Boundary Conditions. International Journal of Artificial Organs, 2013, 36, 693-699.	1.4	2
49	Using Formal Task Analytic Models to Support User Manual Development: An LVAD Case Study. Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare, 2015, 4, 114-117.	0.3	2
50	Retrograde flow in aortic isthmus in normal and fetal heart disease by principal component analysis and computational fluid dynamics. Echocardiography, 2022, 39, 166-177.	0.9	2
51	Cardiac Magnetic Resonance Imaging of Mechanical Cavopulmonary Assistance. Journal of Medical Devices, Transactions of the ASME, 2019, 13, .	0.7	1
52	Pediatric mechanical circulatory supportâ€”leveraging design innovation for the younger generation. Journal of Cardiac Surgery, 2020, 35, 8-10.	0.7	1
53	Invited commentary: A prospective randomized trial on parents' disease knowledge and quality of life. Shall WeChat about telehealth?. Journal of Cardiac Surgery, 2021, 36, 3698-3701.	0.7	1
54	Tunable Blood Shunt for Neonates With Complex Congenital Heart Defects. Frontiers in Bioengineering and Biotechnology, 2021, 9, 734310.	4.1	1

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55	Invited commentary for: Essential role of cardiac computed tomography for surgical decision making in children with total anomalous pulmonary venous connection and single ventricle. Journal of Cardiac Surgery, 2022, , .	0.7	1
56	Mechanical and interventional support for heart failure with preserved ejection fraction: A review. Artificial Organs, 2022, , .	1.9	1
57	Vortical flow characteristics of mechanical cavopulmonary assistance: Pre- and post-swirl dynamics. Technology and Health Care, 2016, 24, 627-638.	1.2	0
58	Invited commentary: Personalized surgical planning by computational and visual methods in 21stâ€century medical engineering. Journal of Cardiac Surgery, 2020, 35, 526-527.	0.7	0
59	On the path to permanent artificial heart technology: Greater energy independence is paramount. Artificial Organs, 2021, 45, 332-335.	1.9	0
60	Invited commentary for coarctation and hypoplastic distal aortic arch; a keystone shift away from the archway?. Journal of Cardiac Surgery, 2021, 36, 2070-2071.	0.7	0
61	The newly emerging field of pediatric engineering: Innovation for our next generation. Artificial Organs, 2021, 45, 537-541.	1.9	0
62	Invited commentary for asymmetric dimethylarginine (ADMA): Is it a risk factor in the repair of aortic coarctation?. Journal of Cardiac Surgery, 2021, 36, 2741-2742.	0.7	0
63	Multiâ€disciplinary frameworks for the treatment of primary cardiac sarcoma. Journal of Cardiac Surgery, 2021, 36, 3456-3457.	0.7	0
64	Pneumatically-driven external pressure applicator to augment Fontan hemodynamics: preliminary findings. Translational Pediatrics, 2013, 2, 148-53.	1.2	0
65	Invited commentary: Total anomalous pulmonary venous connection remains a challenging pediatric disease. Journal of Cardiac Surgery, 0, , .	0.7	0