

Robin S Shandas

List of Publications by Year in descending order

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148
papers

5,841
citations

87888

38
h-index

85541

71
g-index

155
all docs

155
docs citations

155
times ranked

5686
citing authors

#	ARTICLE	IF	CITATIONS
1	Unconstrained recovery characterization of shape-memory polymer networks for cardiovascular applications. <i>Biomaterials</i> , 2007, 28, 2255-2263.	11.4	536
2	Finite deformation thermo-mechanical behavior of thermally induced shape memory polymers. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 1730-1751.	4.8	357
3	Strong, Tailored, Biocompatible Shape-Memory Polymer Networks. <i>Advanced Functional Materials</i> , 2008, 18, 2428-2435.	14.9	321
4	Thermomechanics of the shape memory effect in polymers for biomedical applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2005, 73A, 339-348.	4.0	301
5	Paclitaxel-liposome-microbubble complexes as ultrasound-triggered therapeutic drug delivery carriers. <i>Journal of Controlled Release</i> , 2013, 166, 246-255.	9.9	213
6	Development and validation of echo PIV. <i>Experiments in Fluids</i> , 2004, 36, 455-462.	2.4	167
7	Quantification of Hemodynamic Wall Shear Stress in Patients with Bicuspid Aortic Valve Using Phase-Contrast MRI. <i>Annals of Biomedical Engineering</i> , 2010, 38, 788-800.	2.5	163
8	Pulmonary vascular input impedance is a combined measure of pulmonary vascular resistance and stiffness and predicts clinical outcomes better than pulmonary vascular resistance alone in pediatric patients with pulmonary hypertension. <i>American Heart Journal</i> , 2008, 155, 166-174.	2.7	142
9	Artificial Neural Network-Based Method of Screening Heart Murmurs in Children. <i>Circulation</i> , 2001, 103, 2711-2716.	1.6	132
10	Changes in the structure-function relationship of elastin and its impact on the proximal pulmonary arterial mechanics of hypertensive calves. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2008, 295, H1451-H1459.	3.2	127
11	Two-Stage Reactive Polymer Network Forming Systems. <i>Advanced Functional Materials</i> , 2012, 22, 1502-1510.	14.9	127
12	Photopolymerized thiol-ene systems as shape memory polymers. <i>Polymer</i> , 2010, 51, 4383-4389.	3.8	124
13	Mesoporous silica nanoparticles as a breast-cancer targeting ultrasound contrast agent. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 116, 652-657.	5.0	107
14	High Pulsatility Flow Induces Adhesion Molecule and Cytokine mRNA Expression in Distal Pulmonary Artery Endothelial Cells. <i>Annals of Biomedical Engineering</i> , 2009, 37, 1082-1092.	2.5	93
15	In Vitro and Preliminary In Vivo Validation of Echo Particle Image Velocimetry in Carotid Vascular Imaging. <i>Ultrasound in Medicine and Biology</i> , 2011, 37, 450-464.	1.5	84
16	Effects of thermal rates on the thermomechanical behaviors of amorphous shape memory polymers. <i>Mechanics of Time-Dependent Materials</i> , 2010, 14, 219-241.	4.4	75
17	Analysis of the Effect of Flow Rate on the Doppler Continuity Equation for Stenotic Orifice Area Calculations. <i>Circulation</i> , 1998, 97, 1597-1605.	1.6	71
18	A Survey of Surface Modification Techniques for Next-Generation Shape Memory Polymer Stent Devices. <i>Polymers</i> , 2014, 6, 2309-2331.	4.5	71

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19	Extraction of Pulmonary Vascular Compliance, Pulmonary Vascular Resistance, and Right Ventricular Work From Single-Pressure and Doppler Flow Measurements in Children With Pulmonary Hypertension: a New Method for Evaluating Reactivity. <i>Circulation</i> , 2004, 110, 2609-2617.	1.6	69
20	Real time multicomponent echo particle image velocimetry technique for opaque flow imaging. <i>Applied Physics Letters</i> , 2006, 88, 261915.	3.3	69
21	Effects of Pathological Flow on Pulmonary Artery Endothelial Production of Vasoactive Mediators and Growth Factors. <i>Journal of Vascular Research</i> , 2009, 46, 561-571.	1.4	63
22	Noninvasive Measurement of Steady and Pulsating Velocity Profiles and Shear Rates in Arteries Using Echo PIV: In Vitro Validation Studies. <i>Annals of Biomedical Engineering</i> , 2004, 32, 1067-1076.	2.5	61
23	Mechanics and Function of the Pulmonary Vasculature: Implications for Pulmonary Vascular Disease and Right Ventricular Function. , 2012, 2, 295-319.		61
24	Development of a custom-designed echo particle image velocimetry system for multi-component hemodynamic measurements: system characterization and initial experimental results. <i>Physics in Medicine and Biology</i> , 2008, 53, 1397-1412.	3.0	58
25	Use of Myocardial Performance Index in Pediatric Patients with Idiopathic Pulmonary Arterial Hypertension. <i>Journal of the American Society of Echocardiography</i> , 2006, 19, 21-27.	2.8	57
26	Wall shear stress measured by phase contrast cardiovascular magnetic resonance in children and adolescents with pulmonary arterial hypertension. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2013, 15, 81.	3.3	57
27	An Artificial Right Ventricle for Failing Fontan: In Vitro and Computational Study. <i>Annals of Thoracic Surgery</i> , 2009, 88, 170-176.	1.3	56
28	Influence of Connection Geometry and SVC-IVC Flow Rate Ratio on Flow Structures within the Total Cavopulmonary Connection: A Numerical Study. <i>Journal of Biomechanical Engineering</i> , 2002, 124, 364-377.	1.3	52
29	Injectable Carbon Nanotube-Functionalized Reverse Thermal Gel Promotes Cardiomyocytes Survival and Maturation. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31645-31656.	8.0	52
30	High pulsatility flow stimulates smooth muscle cell hypertrophy and contractile protein expression. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2013, 304, L70-L81.	2.9	49
31	Experimental Studies to Define the Geometry of the Flow Convergence Region: Laser Doppler Particle Tracking and Color Doppler Imaging. <i>Echocardiography</i> , 1992, 9, 43-50.	0.9	48
32	Development of A Noninvasive Ultrasound Color M-Mode Means of Estimating Pulmonary Vascular Resistance in Pediatric Pulmonary Hypertension. <i>Circulation</i> , 2001, 104, 908-913.	1.6	48
33	Noninvasive Doppler Tissue Measurement of Pulmonary Artery Compliance in Children with Pulmonary Hypertension. <i>Journal of the American Society of Echocardiography</i> , 2006, 19, 403-412.	2.8	48
34	Main Pulmonary Arterial Wall Shear Stress Correlates with Invasive Hemodynamics and Stiffness in Pulmonary Hypertension. <i>Pulmonary Circulation</i> , 2016, 6, 37-45.	1.7	48
35	Gold Nanoparticle-Functionalized Reverse Thermal Gel for Tissue Engineering Applications. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18671-18680.	8.0	47
36	A Microstructural Hyperelastic Model of Pulmonary Arteries Under Normo- and Hypertensive Conditions. <i>Annals of Biomedical Engineering</i> , 2005, 33, 1042-1052.	2.5	43

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37	Pulmonary Vascular Stiffness: Measurement, Modeling, and Implications in Normal and Hypertensive Pulmonary Circulations. , 2011, 1, 1413-1435.		43
38	In vivo measurement of proximal pulmonary artery elastic modulus in the neonatal calf model of pulmonary hypertension: development and ex vivo validation. Journal of Applied Physiology, 2010, 108, 968-975.	2.5	42
39	Simulations of Congenital Septal Defect Closure and Reactivity Testing in Patient-Specific Models of the Pediatric Pulmonary Vasculature: A 3D Numerical Study With Fluid-Structure Interaction. Journal of Biomechanical Engineering, 2006, 128, 564-572.	1.3	40
40	Enhanced two-stage reactive polymer network forming systems. Polymer, 2012, 53, 2429-2434.	3.8	38
41	Accuracy of flow convergence estimates of mitral regurgitant flow rates obtained by use of multiple color flow Doppler M-mode aliasing boundaries: An experimental animal study. American Heart Journal, 1993, 125, 449-458.	2.7	37
42	Characterization of micro-invasive trabecular bypass stents by ex vivo perfusion and computational flow modeling. Clinical Ophthalmology, 2014, 8, 499.	1.8	37
43	Biomimetic Polymers for Cardiac Tissue Engineering. Biomacromolecules, 2016, 17, 1593-1601.	5.4	37
44	Numerical modeling of microbubble backscatter to optimize ultrasound particle image velocimetry imaging: initial studies. Ultrasonics, 2004, 42, 1111-1121.	3.9	36
45	Computational fluid dynamics analysis of microbubble formation in microfluidic flow-focusing devices. Microfluidics and Nanofluidics, 2007, 3, 195-206.	2.2	36
46	Advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: Initial numerical studies using rectangular and triangular waves. Ultrasound in Medicine and Biology, 2005, 31, 99-108.	1.5	35
47	Characterizing Vortex Ring Behavior During Ventricular Filling with Doppler Echocardiography: An in Vitro Study. Annals of Biomedical Engineering, 2004, 32, 245-256.	2.5	34
48	4D magnetic resonance flow imaging for estimating pulmonary vascular resistance in pulmonary hypertension. Journal of Magnetic Resonance Imaging, 2016, 44, 914-922.	3.4	34
49	Measurement of Wall Shear Stress Exerted by Flowing Blood in the Human Carotid Artery: Ultrasound Doppler Velocimetry and Echo Particle Image Velocimetry. Ultrasound in Medicine and Biology, 2018, 44, 1392-1401.	1.5	34
50	A Microstructurally Driven Model for Pulmonary Artery Tissue. Journal of Biomechanical Engineering, 2011, 133, 051002.	1.3	32
51	Hydrogel formulation determines cell fate of fetal and adult neural progenitor cells. Stem Cell Research, 2014, 12, 11-23.	0.7	31
52	Non-invasive determination by cardiovascular magnetic resonance of right ventricular-vascular coupling in children and adolescents with pulmonary hypertension. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 81.	3.3	31
53	Color flow Doppler determination of transmitral flow and orifice area in mitral stenosis: Experimental evaluation of the proximal flow-convergence method. American Heart Journal, 1995, 129, 114-123.	2.7	29
54	A Novel Cationic Microbubble Coated with Stearic Acid-Modified Polyethylenimine to Enhance DNA Loading and Gene Delivery by Ultrasound. PLoS ONE, 2013, 8, e76544.	2.5	29

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55	Injectable Polymeric Delivery System for Spatiotemporal and Sequential Release of Therapeutic Proteins To Promote Therapeutic Angiogenesis and Reduce Inflammation. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 1217-1227.	5.2	28
56	Utility of Three-Dimensional Ultrasound Doppler Flow Reconstruction of the Proximal Jet to Quantify Effective Orifice Area: In Vitro Steady and Pulsatile Flow Studies. <i>Journal of the American Society of Echocardiography</i> , 1998, 11, 313-321.	2.8	27
57	Nature of flow acceleration into a finite-sized orifice: Steady and pulsatile flow studies on the flow convergence region using simultaneous ultrasound Doppler flow mapping and laser Doppler velocimetry. <i>Journal of the American College of Cardiology</i> , 1995, 25, 1199-1212.	2.8	26
58	Comparison of In Vitro Velocity Measurements in a Scaled Total Cavopulmonary Connection with Computational Predictions. <i>Annals of Biomedical Engineering</i> , 2003, 31, 810-822.	2.5	26
59	Insights into the effect of aortic compliance on Doppler diastolic flow patterns seen in coarctation of the aorta: A numeric study. <i>Journal of the American Society of Echocardiography</i> , 2003, 16, 162-169.	2.8	26
60	Computational simulations of the total cavo-pulmonary connection: insights in optimizing numerical solutions. <i>Medical Engineering and Physics</i> , 2005, 27, 135-146.	1.7	26
61	Vorticity is a Marker of Diastolic Ventricular Interdependency in Pulmonary Hypertension. <i>Pulmonary Circulation</i> , 2016, 6, 46-54.	1.7	26
62	Accuracy of the Bernoulli Equation for Estimation of Pressure Gradient Across Stenotic Blalock-Taussig Shunts: An In Vitro and Numerical Study. <i>Pediatric Cardiology</i> , 2000, 21, 439-447.	1.3	24
63	Characterization of CMR-derived haemodynamic data in children with pulmonary arterial hypertension. <i>European Heart Journal Cardiovascular Imaging</i> , 2016, 18, jew152.	1.2	24
64	Estimation of regurgitant flow volume based on centerline velocity/distance profiles using digital color M-Q Doppler: Application to orifices of different shapes. <i>Journal of the American College of Cardiology</i> , 1994, 24, 440-445.	2.8	21
65	Theoretical predictions of harmonic generation from submicron ultrasound contrast agents for nonlinear biomedical ultrasound imaging. <i>Physics in Medicine and Biology</i> , 2006, 51, 557-573.	3.0	21
66	Aortic Input Impedance Increases With Age in Healthy Men and Women. <i>Hypertension</i> , 2005, 45, 1101-1106.	2.7	20
67	Initial Experience With the Development and Numerical and In Vitro Studies of A Novel Low-Pressure Artificial Right Ventricle for Pediatric Fontan Patients. <i>ASAIO Journal</i> , 2006, 52, 682-692.	1.6	20
68	A new flow co-culture system for studying mechanobiology effects of pulse flow waves. <i>Cytotechnology</i> , 2012, 64, 649-666.	1.6	20
69	Impact of Residual Stretch and Remodeling on Collagen Engagement in Healthy and Pulmonary Hypertensive Calf Pulmonary Arteries at Physiological Pressures. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1419-1433.	2.5	20
70	Predicting backscatter characteristics from micron- and submicron-scale ultrasound contrast agents using a size-integration technique. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2006, 53, 639-644.	3.0	19
71	Real-Time Texture Analysis for Identifying Optimum Microbubble Concentration in 2-D Ultrasonic Particle Image Velocimetry. <i>Ultrasound in Medicine and Biology</i> , 2011, 37, 1280-1291.	1.5	19
72	An injectable sulfonated reversible thermal gel for therapeutic angiogenesis to protect cardiac function after a myocardial infarction. <i>Journal of Biological Engineering</i> , 2019, 13, 6.	4.7	19

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73	Insights into catheter/doppler discrepancies in congenital aortic stenosis. American Journal of Cardiology, 1999, 83, 1447-1450.	1.6	18
74	Efficiency differences in computational simulations of the total cavo-pulmonary circulation with and without compliant vessel walls. Computer Methods and Programs in Biomedicine, 2006, 81, 220-227.	4.7	18
75	Application of A Microstructural Constitutive Model of the Pulmonary Artery to Patient-Specific Studies: Validation and Effect of Orthotropy. Journal of Biomechanical Engineering, 2007, 129, 193-201.	1.3	18
76	Comparison of mechanical behavior among the extrapulmonary arteries from rats. Journal of Biomechanics, 2007, 40, 812-819.	2.1	18
77	Capacitive micromachined ultrasonic transducers using commercial multi-user MUMPs process: Capability and limitations. Ultrasonics, 2009, 49, 765-773.	3.9	18
78	Impact of pulmonary vascular stiffness and vasodilator treatment in pediatric pulmonary hypertension: 21 patient-specific fluid-structure interaction studies. Computer Methods and Programs in Biomedicine, 2012, 108, 617-628.	4.7	18
79	Effect of Vessel Size on the Flow Efficiency of the Total Cavopulmonary Connection: In Vitro Studies. Pediatric Cardiology, 2002, 23, 171-177.	1.3	17
80	A heparin-mimicking reverse thermal gel for controlled delivery of positively charged proteins. Journal of Biomedical Materials Research - Part A, 2015, 103, 2102-2108.	4.0	17
81	Factors influencing pulmonary venous flow velocity patterns in mitral regurgitation: An in vitro study. Journal of the American College of Cardiology, 1995, 26, 1333-1339.	2.8	16
82	Computational simulation of the pulmonary arteries and its role in the study of pediatric pulmonary hypertension. Progress in Pediatric Cardiology, 2010, 30, 63-69.	0.4	16
83	Ultrasonic Imaging of Endothelial CD81 Expression Using CD81-Targeted Contrast Agents in In Vitro and In Vivo Studies. Ultrasound in Medicine and Biology, 2012, 38, 670-680.	1.5	16
84	Integrating a novel shape memory polymer into surgical meshes decreases placement time in laparoscopic surgery: An in vitro and acute in vivo study. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2613-2620.	4.0	16
85	Influence of Distal Resistance and Proximal Stiffness on Hemodynamics and RV Afterload in Progression and Treatments of Pulmonary Hypertension: A Computational Study with Validation Using Animal Models. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-12.	1.3	16
86	Echo Particle Image Velocimetry for Estimation of Carotid Artery Wall Shear Stress: Repeatability, Reproducibility and Comparison with Phase-Contrast Magnetic Resonance Imaging. Ultrasound in Medicine and Biology, 2017, 43, 1618-1627.	1.5	16
87	Circulating miRNAs in Pediatric Pulmonary Hypertension Show Promise as Biomarkers of Vascular Function. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-11.	4.0	16
88	Cine magnetic resonance imaging and color Doppler flow mapping displays of flow velocity, spatial acceleration, and jet formation: A comparative in vitro study. American Heart Journal, 1993, 126, 1165-1173.	2.7	15
89	Effects of adjacent surfaces of different shapes on regurgitant jet sizes: An in vitro study using color Doppler imaging and laser-illuminated dye visualization. Journal of the American College of Cardiology, 1993, 22, 1522-1529.	2.8	15
90	A Method for Determining the Reference Effective Flow Areas for Mechanical Heart Valve Prostheses. Circulation, 2000, 101, 1953-1959.	1.6	15

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91	Use of intravascular ultrasound to measure local compliance of the pediatric pulmonary artery: In vitro studies. <i>Journal of the American Society of Echocardiography</i> , 2002, 15, 1507-1514.	2.8	15
92	An investigation of industrial molding compounds for use in 3D ultrasound, MRI, and CT imaging phantoms. <i>Medical Physics</i> , 2013, 40, 052905.	3.0	15
93	A sulfonated reversible thermal gel for the spatiotemporal control of VEGF delivery to promote therapeutic angiogenesis. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 3053-3064.	4.0	15
94	Linked opening angle and histological and mechanical aspects of the proximal pulmonary arteries of healthy and pulmonary hypertensive rats and calves. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2011, 301, H1810-H1818.	3.2	14
95	Extubation force depends upon angle of force application and fixation technique: a study of 7 methods. <i>BMC Anesthesiology</i> , 2014, 14, 74.	1.8	14
96	Fabrication and Characterization of Novel High Modulus, Two-Stage Reactive Thiol-Acrylate Composite Polymer Systems. <i>Macromolecular Symposia</i> , 2013, 329, 101-107.	0.7	13
97	Accuracy of flow convergence methods for calculating mitral regurgitant flow: Validation studies in an animal model. <i>Journal of the American College of Cardiology</i> , 1990, 15, A110.	2.8	12
98	Nucleus Replacement Device Failure. <i>Spine</i> , 2010, 35, E1241-E1247.	2.0	12
99	Biocompatibility and tissue integration of a novel shape memory surgical mesh for ventral hernia: In vivo animal studies. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2014, 102, 1093-1100.	3.4	12
100	Microgrooves Encourage Endothelial Cell Adhesion and Organization on Shape-Memory Polymer Surfaces. <i>ACS Applied Bio Materials</i> , 2019, 2, 1897-1906.	4.6	11
101	Development of a Minimally Invasive, Injectable, Shape Memory Suture and Delivery System. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1520-1529.	2.5	10
102	Assessment of N-terminal Prohormone B-type Natriuretic Peptide as a Measure of Vascular and Ventricular Function in Pediatric Pulmonary Arterial Hypertension. <i>Pulmonary Circulation</i> , 2015, 5, 658-666.	1.7	10
103	Development of an electrospun biomimetic polyurea scaffold suitable for vascular grafting. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 278-290.	3.4	10
104	Left ventricular torsion rate and the relation to right ventricular function in pediatric pulmonary arterial hypertension. <i>Pulmonary Circulation</i> , 2018, 8, 1-10.	1.7	10
105	A new automatic computer method for measuring mean flow convergence radius from color MQ modes provides more accurate flow rate estimates: In-vitro and animal studies of mitral regurgitation. <i>Journal of the American College of Cardiology</i> , 1991, 17, A149.	2.8	9
106	Wave scattering from encapsulated microbubbles subject to high-frequency ultrasound: Contribution of higher-order scattering modes. <i>Journal of the Acoustical Society of America</i> , 2009, 126, 1766-1775.	1.1	9
107	Structural and Biomechanical Adaptations of Right Ventricular Remodeling in Pulmonary Arterial Hypertension Reduces Left Ventricular Rotation During Contraction: A Computational Study. <i>Journal of Biomechanical Engineering</i> , 2019, 141, .	1.3	9
108	A Novel Microfluidic Chip for Assessing Dynamic Adhesion Behavior of Cell-Targeting Microbubbles. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 148-157.	1.5	8

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109	Analysis of pediatric airway morphology using statistical shape modeling. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 899-911.	2.8	8
110	Requirement for accurate measurement of regurgitant stroke volume by the combined continuous-wave Doppler and color Doppler flow convergence method. <i>American Heart Journal</i> , 1997, 133, 19-28.	2.7	7
111	Real-Time 3-Dimensional Volumetric Ultrasound Imaging of the Vena Contracta for Stenotic Valves with the Use of Echocardiographic Contrast Imaging: In Vitro Pulsatile Flow Studies. <i>Journal of the American Society of Echocardiography</i> , 1999, 12, 541-550.	2.8	7
112	A Zero-Dimensional Model and Protocol for Simulating Patient-Specific Pulmonary Hemodynamics From Limited Clinical Data. <i>Journal of Biomechanical Engineering</i> , 2016, 138, .	1.3	7
113	Shape Memory Polymers Containing Higher Acrylate Content Display Increased Endothelial Cell Attachment. <i>Polymers</i> , 2017, 9, 572.	4.5	7
114	Noninvasive Methods for Determining Pulmonary Vascular Function in Children with Pulmonary Arterial Hypertension: Application of a Mechanical Oscillator Model. <i>Congenital Heart Disease</i> , 2008, 3, 106-116.	0.2	6
115	Measurement uncertainty in pulmonary vascular input impedance and characteristic impedance estimated from pulsed-wave Doppler ultrasound and pressure: clinical studies on 57 pediatric patients. <i>Physiological Measurement</i> , 2010, 31, 729-748.	2.1	6
116	Reverse flow in compliant vessels and its implications for the Fontan procedure: numerical studies. <i>Biomedical Sciences Instrumentation</i> , 2002, 38, 321-6.	0.2	6
117	Dynamic three-dimensional reconstruction and modeling of cardiovascular anatomy in children with congenital heart disease using biplane angiography. <i>Biomedical Sciences Instrumentation</i> , 2004, 40, 200-5.	0.2	6
118	Flow convergence calculations of flow rate through non or minimally restrictive orifices: In-vitro studies. <i>Journal of the American College of Cardiology</i> , 1991, 17, A359.	2.8	5
119	The design and fabrication of two portal vein flow phantoms by different methods. <i>Medical Physics</i> , 2014, 41, 023701.	3.0	5
120	Abstract 4388: In-Vivo Pulmonary Vascular Stiffness Obtained from Color M-Mode Tissue Doppler Imaging and Pressure Measurements Predicts Clinical Outcomes Better than Indexed Pulmonary Vascular Resistance in Pediatric Patients with Pulmonary Arterial Hypertension. <i>Circulation</i> , 2008, 118, .	1.6	3
121	Stress and strain in rat pulmonary artery material during a biaxial bubble test. <i>Biomedical Sciences Instrumentation</i> , 2004, 40, 303-8.	0.2	3
122	Thermomechanical indentation of shape memory polymers. , 2007, , .		2
123	Systematic validation of the echo particle image velocimetry technique using a patient specific carotid bifurcation model. , 2008, , .		2
124	In Vivo Validation of Echo Partical Image Velocimetry (Echo PIV) in Human Carotid Arteries Using Phase-Contrast MRI. , 2009, , .		2
125	Free Recovery Effects of Shape-Memory Polymers for Cardiovascular Stents. <i>Materials Research Society Symposia Proceedings</i> , 2005, 898, 1.	0.1	1
126	Conduit Arteries In The Rat And Calf Express Different Material Property Changes In Response To Hypoxia-Induced Pulmonary Hypertension. , 2010, , .		1

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127	Direct echo PIV flow vector mapping on ultrasound DICOM images. , 2010, , .		1
128	Constitutive Modeling of Anisotropic Finite-Deformation Hyperelastic Behaviors of Soft Materials Reinforced by Tortuous Fibers. , 2010, 2, 19-29.		1
129	Pressure recovery and aortic stenosis. Journal of the American College of Cardiology, 2000, 35, 260.	2.8	0
130	Optimizing the Thermomechanics of Shape-Memory Polymers for Biomedical Applications. Materials Research Society Symposia Proceedings, 2004, 855, 99.	0.1	0
131	Tailored Nanoscale Contrast Agents for Magnetic Resonance Imaging. , 2005, , 581.		0
132	Validation of a Second-Generation Echo PIV System in Patient-Specific Carotid Artery Models: In Vitro Studies Using Pulsatile Flow. , 2008, , .		0
133	Influence of Distal Resistance and Proximal Vascular Stiffness on Vascular Impedance and Hemodynamics in Pulmonary Hypertension: A Computational Study With Validation Using an Animal Model. , 2009, , .		0
134	Microstructural Changes in Collagen and Elastin and Their Impact on the Mechanics of the Pulmonary Artery in Hypertension. , 2011, , .		0
135	A Comparative Study of Mechanical Properties of Fresh and Elastic-Network Only Proximal Artery Tissues. , 2007, , .		0
136	An Implantable Transit-Time Aortic Flow Probe Using Capacitive Micromachined Ultrasound Transducers: Design and Optimization. , 2007, , .		0
137	Patient-Specific Fluid Structure Interaction Simulation Applied to Evaluating Hemodynamics Within the Total Cavopulmonary Connection. , 2007, , .		0
138	Real-Time Measurement of Multi-Component Velocity Vectors Within Abdominal Aortic Aneurysms Using Echo PIV: Comparison of In Vitro and Computational Results. , 2007, , .		0
139	Use of Cardiac Phase-Contrast MRI to Examine Hemodynamics and Wall Deformation Within the Aortic Root for Patients With Bicuspid Aortic Valves. , 2007, , .		0
140	Measurement of In-Vivo Pulmonary Vascular Impedance in Two Animal Models of Pulmonary Hypertension. , 2007, , .		0
141	Addition of Particle Tracking Techniques to Improve Two-Dimensional Echo PIV for Opaque Flow Measurement. , 2007, , .		0
142	Contribution of Elastin to the Mechanical Properties of Arterial Tissues. , 2007, , .		0
143	Effect of Vascular Stiffness on Pulmonary Flow in Normotensive and Hypertensive States: Numerical Study With Fluid Structure Interaction. , 2008, , .		0
144	Quantification of Elastin Residual Stretch in Fresh Artery Tissue: Impact on Artery Material Properties and Pulmonary Hypertension Pathophysiology. , 2009, , .		0

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145	Measurement of Valve Lesion Morphology and Aorta / Flow-Jet Patterns in Bicuspid Aortic Valve Patients. , 2009, , .		0
146	Effect of Vessel Stiffening and High Pulsatility Flow on Contractile Function and Proliferation of Small Arterial Cells. , 2010, , .		0
147	Patient-Specific Imaging-Based Techniques for Optimization of Pediatric Cardiovascular Surgery. , 2014, , 3471-3490.		0
148	Left Ventricular Filling Dynamics: Particle Image Velocimetry and Ultrasound Color M-Mode Imaging. , 2001, , .		0