Felix A Blyakhman

List of Publications by Year
in descending order

80	760	516215 16	610482 24
papers	citations	h-index	g-index

83	83	83	658
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modelling of hemodynamics in bifurcation lesions of coronary arteries before and after myocardial revascularization. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20200303.	1.6	11
2	The Modeling of Magnetic Detection of Iron Oxide Nanoparticles in the Stream of Patient-Specific Artery With Stenotic Lesion: The Effects of Vessel Geometry and Particle Concentration. IEEE Transactions on Magnetics, 2022, 58, 1-5.	1.2	1
3	Magnetodynamic study of the ferroliquid current in blood vessels: Focus on magnetic detection systems. AIP Conference Proceedings, 2022, , .	0.3	1
4	Mechanical properties of ferrogels based on polyacrylamide filled with strontium hexaferrite microparticles studied using stress-strain and ultrasonography tests. AIP Conference Proceedings, 2022, , .	0.3	0
5	Magnetic Properties of Iron Oxide Nanoparticles Do Not Essentially Contribute to Ferrogel Biocompatibility. Nanomaterials, 2021, 11, 1041.	1.9	11
6	Echogenic Advantages of Ferrogels Filled with Magnetic Sub-Microparticles. Bioengineering, 2021, 8, 140.	1.6	3
7	Magnetic Nanoparticles Obtained by Electrophysical Technique: Focus on Biomedical Applications. Physics of the Solid State, 2021, 63, 1447-1461.	0.2	4
8	In-silico study of hemodynamic effects in a coronary artery with stenosis. European Physical Journal: Special Topics, 2020, 229, 3009-3020.	1.2	9
9	Detection of Magnetic Nanoparticles in Blood Vessels. Inorganic Materials: Applied Research, 2020, 11, 766-771.	0.1	5
10	Effects of Constant Magnetic Field to the Proliferation Rate of Human Fibroblasts Grown onto Different Substrates: Tissue Culture Polystyrene, Polyacrylamide Hydrogel and Ferrogels Î³-Fe2O3 Magnetic Nanoparticles. Nanomaterials, 2020, 10, 1697.	1.9	13
11	Biocompatible contactless electrically responsive hydrogelâ€based force maker. Polymer International, 2020, 69, 912-919.	1.6	0
12	Magnetic Nanoparticles as a Strong Contributor to the Biocompatibility of Ferrogels. Physics of Metals and Metallography, 2020, 121, 299-304.	0.3	10
13	Functional magnetic ferrogels: From biosensors to regenerative medicine. AIP Advances, 2020, 10, .	0.6	19
14	Impact of connective tissue dysplasia on heart adaptation to exercise stress in young athletes. BIO Web of Conferences, 2020, 22, 02019.	0.1	0
15	CONNECTIVE TISSUE DYSPLASIA AS A POTENTIAL RISK FACTOR FOR MYOCARDIAL ELECTRIC INSTABILITY IN YOUNG ATHLETES. Human Sport Medicine, 2020, 19, 125-132.	0.5	1
16	Ferrogels Ultrasonography for Biomedical Applications. Sensors, 2019, 19, 3959.	2.1	11
17	To the theory of mechano-magnetic effects in ferrogels. Journal of Magnetism and Magnetic Materials, 2019, 478, 211-215.	1.0	3
18	The Contribution of Magnetic Nanoparticles to Ferrogel Biophysical Properties. Nanomaterials, 2019, 9, 232.	1.9	30

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19	Estimation of Blood Flow Velocity in Coronary Arteries Based on the Movement of Radiopaque Agent. Pattern Recognition and Image Analysis, 2019, 29, 750-762.	0.6	6
20	Design magnetic matrices for cell technology supporting devices. Journal of Physics: Conference Series, 2019, 1389, 012072.	0.3	0
21	Detection of magnetic nanoparticles in blood vessels. Materialovedenie, 2019, 9, 19-25.	0.0	0
22	Biomimetic gels with chemical and physical interpenetrating networks. Polymer International, 2018, 67, 1330-1334.	1.6	11
23	EFFECT OF THE POLYACRYLAMIDE FERROGEL ELASTICITY ON THE CELL ADHESIVENESS TO MAGNETIC COMPOSITE. Journal of Mechanics in Medicine and Biology, 2018, 18, 1850060.	0.3	9
24	Polyacrylamide Ferrogels with Magnetite or Strontium Hexaferrite: Next Step in the Development of Soft Biomimetic Matter for Biosensor Applications. Sensors, 2018, 18, 257.	2.1	46
25	Mechanical, Electrical and Magnetic Properties of Ferrogels with Embedded Iron Oxide Nanoparticles Obtained by Laser Target Evaporation: Focus on Multifunctional Biosensor Applications. Sensors, 2018, 18, 872.	2.1	40
26	CONNECTIVE TISSUE DYSPLASIA IN YOUNG ATHLETES: LITERATURE REVIEW. Human Sport Medicine, 2018, 18, 101-112.	0.5	4
27	Connective tissue dysplasia in young hockey players: advantage or risk?. Minerva Orthopedics, 2018, 69, .	0.1	0
28	English Language in Medical Informatics Teaching: Opinion of Students. Vysshee Obrazovanie V Rossii, 2018, 27, 55-61.	0.5	0
29	â€œExclusion Zoneâ€•Formation in Mixtures of Ethanol and Water. Journal of Solution Chemistry, 2017, 46, 626-632.	0.6	3
30	Polyacrylamide ferrogels with embedded maghemite nanoparticles for biomedical engineering. Results in Physics, 2017, 7, 3624-3633.	2.0	42
31	IMPACT OF LEFT VENTRICULAR FALSE TENDONS ON YOUNG ATHLETESâ€™ CARDIOVASCULAR ADAPTATION TO EXERCISE LOADS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750066.	0.3	1
32	Magnetoimpedance biosensor prototype for ferrogel detection. Journal of Magnetism and Magnetic Materials, 2017, 441, 650-655.	1.0	17
33	FALSE TENDONS IN THE LEFT VENTRICLE. Russian Journal of Cardiology, 2017, , 87-91.	0.4	3
34	SIGNIFICANCE OF THE FALSE CHORDS IN THE LEFT VENTRICLE FOR DIAGNOSTIC APPROACHES IN CHILD CONNECTIVE TISSUE DYSPLASIAS. Cardiovascular Therapy and Prevention (Russian Federation), 2017, 16, 99-104.	0.4	1
35	Mechanoelectrical transduction in the hydrogel-based biomimetic sensors. Sensors and Actuators A: Physical, 2016, 248, 54-61.	2.0	19
36	Does the right muscular atrioventricular valve in the avian heart perform two functions?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 184, 41-45.	0.8	12

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37	CARDIAC REGIONAL FUNCTION OF YOUNG SPORTSMEN WITH FALSE TENDONS IN THE LEFT VENTRICLE. Journal of Mechanics in Medicine and Biology, 2015, 15, 1540010.	0.3	1
38	Giant magnetoimpedance biosensor for ferrogel detection: Model system to evaluate properties of natural tissue. Applied Physics Letters, 2015, 106, .	1.5	71
39	To the mechanism of polyelectrolyte gel periodic acting in the constant DC electric field. Sensors and Actuators A: Physical, 2015, 229, 104-109.	2.0	5
40	Mapping of False Tendons in the Left Ventricle Based on the Heart Transthoracic Ultrasound Visualization. Journal of Medical Imaging and Health Informatics, 2015, 5, 1217-1222.	0.2	3
41	MYOCARDIAL PERFUSION ASSESSMENT IN FORECASTING EFFECT OF CORONARY ANGIOPLASTY IN PATIENTS WITH ISCHEMIC CHRONIC HEART FAILURE. Vestnik Transplantologii I Iskusstvennykh Organov, 2015, 17, 23-28.	0.1	0
42	INFLUENCE OF COMPLETENESS HEART REVASCULARIZATION ON A FUNCTIONAL CONDITION OF MYOCARDIUM AT ISCHEMIC CARDIOMYOPATHY. Vestnik Transplantologii I Iskusstvennykh Organov, 2014, 15, 55.	0.1	0
43	To the Molecular Mechanism of Mechanoelectrical Transduction in Cell. Biophysical Journal, 2013, 104, 296a.	0.2	0
44	Regularities of ultrasonography of suspensions of alumina nanoparticles in biological media. Nanotechnologies in Russia, 2013, 8, 262-268.	0.7	0
45	Effect of cytoskeletal elastic properties on the mechanoelectrical transduction in excitable cells. Journal of Biomechanics, 2012, 45, 1444-1449.	0.9	18
46	Activity of counterions in hydrogels based on poly(acrylic acid) and poly(methacrylic acid): Potentiometric measurements. Polymer Science - Series A, 2012, 54, 909-919.	0.4	11
47	Mechanical characteristics of synthetic polyelectrolyte gel as a physical model of the cytoskeleton. Biophysics (Russian Federation), 2011, 56, 68-73.	0.2	4
48	To the 70th anniversary of V.Ya. Izakov (1941â€“1990). Biophysics (Russian Federation), 2011, 56, 331-332.	0.2	0
49	DC electric fields produce periodic bending of polyelectrolyte gels. Polymer, 2011, 52, 2430-2436.	1.8	15
50	Acoustic properties of metal oxides aqueous suspensions. Nanotechnologies in Russia, 2010, 5, 227-234.	0.7	3
51	Mechanoelectric potentials in synthetic hydrogels: Possible relation to cytoskeleton. Biophysics (Russian Federation), 2010, 55, 931-936.	0.2	12
52	Letter to Editors â€” ABOUT THE "FORCE-VELOCITY" RELATION IN MUSCLE AND MANY OTHER ISSUES. Journal of Mechanics in Medicine and Biology, 2010, 10, 1-3.	0.3	2
53	An improvement of accuracy of the speckle tracking techniques by sub-image interframe displacement's prediction. , 2010, , .		2
54	Validity of ejection fraction as a measure of myocardial functional state: impact of asynchrony. European Journal of Echocardiography, 2009, 10, 613-618.	2.3	20

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55	The Influence of Counterion Type and Temperature on Floryâ€Huggins Binary Interaction Parameter in Polyelectrolyte Hydrogels. Macromolecular Chemistry and Physics, 2009, 210, 511-519.	1.1	15
56	A correlation between mechanical and electrical properties of the synthetic hydrogel chosen as an experimental model of cytoskeleton. Biophysics (Russian Federation), 2008, 53, 544-549.	0.2	28
57	LEFT VENTRICULAR INHOMOGENEITY AND THE HEART'S FUNCTIONAL RESERVE. Clinically Oriented Biomedical Engineering, 2007, , 17-56.	0.0	3
58	Donnan Potential in Hydrogels of Poly(Methacrylic Acid) and its Potassium Salt. , 2006, , 273-284.		1
59	EFFECT OF THE MYOCARDIUM NON-UNIFORMITY ON THE HEART FUNCTIONAL RESERVE. Journal of Mechanics in Medicine and Biology, 2005, 05, 29-37.	0.3	4
60	Sarcomere Dynamics, Stepwise Shortening and the Nature of Contraction. , 2005, 565, 113-126.		3
61	Stepwise Length Changes in Single Invertebrate Thick Filaments. Biophysical Journal, 2005, 89, 3269-3276.	0.2	6
62	Why the Left Ventricle Is Not a Sphere. Applied Bionics and Biomechanics, 2004, 1, 101-105.	0.5	2
63	STEP SIZE IN ACTIVATED RABBIT SARCOMERES IS INDEPENDENT OF FILAMENT OVERLAP. Journal of Mechanics in Medicine and Biology, 2004, 04, 485-498.	0.3	1
64	Effect of sarcomere length on step size in relaxed rabbit psoas muscle. Journal of Muscle Research and Cell Motility, 2004, 25, 37-43.	0.9	7
65	The regional elastic properties analysis of myocardium based on echocardiographic 3-D reconstruction of the left ventricle. Ultrasound in Medicine and Biology, 2004, 30, 311-320.	0.7	4
66	Enthalpy of Swelling of Potassium Polyacrylate and Polymethacrylate Hydrogels. Evaluation of Excluded-Volume Interaction. Macromolecular Chemistry and Physics, 2004, 205, 1431-1438.	1.1	16
67	Self-Similar Wave of Swelling/Collapse Phase Transition along Polyelectrolyte Gel. Macromolecular Theory and Simulations, 2004, 13, 697-701.	0.6	4
68	Why the left ventricle is not a sphere. Applied Bionics and Biomechanics, 2004, 1, 101-105.	0.5	1
69	â€œMinimum average riskâ€•as a new peak-detection algorithm applied to myofibrillar dynamics. Computer Methods and Programs in Biomedicine, 2003, 72, 21-26.	2.6	17
70	Translation Step Size Measured in Single Sarcomeres and Single Filament Pairs. Advances in Experimental Medicine and Biology, 2003, 538, 129-141.	0.8	2
71	Fundamental step size in single cardiac and skeletal sarcomeres. American Journal of Physiology - Cell Physiology, 2002, 283, C735-C742.	2.1	13
72	Cardiac ventricular performance in the appropriate- for-gestational age and small-for-gestational age fetus: relation to regional cardiac non-uniformity and peripheral resistance. Ultrasound in Obstetrics and Gynecology, 2002, 20, 35-41.	0.9	15

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73	Quantal Sarcomere-Length Changes in Relaxed Single Myofibrils. Biophysical Journal, 2001, 81, 1093-1100.	0.2	18
74	Intact Connecting Filaments Change Length in 2.3-nm Quanta. Advances in Experimental Medicine and Biology, 2000, 481, 305-318.	0.8	1
75	Quantal length changes in single contracting sarcomeres. Journal of Muscle Research and Cell Motility, 1999, 20, 529-538.	0.9	18
76	Implications of Quantal Motor Action in Biological Systems. Advances in Experimental Medicine and Biology, 1998, 453, 361-371.	0.8	2
77	Cooperative effects due to calcium binding by troponin and their consequences for contraction and relaxation of cardiac muscle under various conditions of mechanical loading.. Circulation Research, 1991, 69, 1171-1184.	2.0	59
78	Inotropic effect of rhythm dispersion. Bulletin of Experimental Biology and Medicine, 1982, 94, 1033-1035.	0.3	1
79	Biomimetic Sensors of the Mechanoelectrical Transduction Based on the Polyelectrolyte Gels. Key Engineering Materials, 0, 644, 4-7.	0.4	3
80	Natural Muscle as a Biological System. , 0, , 53-72.		1