I Sh Akhatov

List of Publications by Year
in descending order

120	1,899	331259	301761
papers	citations	21 h-index	39 g-index

126	126	126	1569
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Relation between Charging Times and Storage Properties of Nanoporous Supercapacitors. Nanomaterials, 2022, 12, 587.	1.9	15
2	Biodegradable iron-silicon implants produced by additive manufacturing. Biomedical Materials (Bristol), 2022, 17, 035005.	1.7	2
3	Effects of the Pre-Consolidated Materials Manufacturing Method on the Mechanical Properties of Pultruded Thermoplastic Composites. Polymers, 2022, 14, 2246.	2.0	24
4	Puncture of a Viscous Liquid Film Due to Droplet Falling. Fluids, 2022, 7, 196.	0.8	0
5	Effects of pulling speed on structural performance of L-shaped pultruded profiles. Composite Structures, 2021, 255, 112967.	3.1	33
6	Thermoplastic Pultrusion: A Review. Polymers, 2021, 13, 180.	2.0	78
7	Modeling Water Droplet Freezing and Collision with a Solid Surface. Energies, 2021, 14, 1020.	1.6	5
8	Effects of additives on the cure kinetics of vinyl ester pultrusion resins. Journal of Composite Materials, 2021, 55, 2921-2937.	1.2	25
9	Modelling and experimental validation of thermoset resin curing during pultrusion. IOP Conference Series: Materials Science and Engineering, 2021, 1129, 012011.	0.3	0
10	Electrolyte structure near electrodes with molecular-size roughness. Physical Review E, 2021, 103, L060102.	0.8	12
11	An Accelerated Slicing Algorithm for Frep Models. Applied Sciences (Switzerland), 2021, 11, 6767.	1.3	3
12	Modeling Spring-In of L-Shaped Structural Profiles Pultruded at Different Pulling Speeds. Polymers, 2021, 13, 2748.	2.0	19
13	CAD/CAM System for Additive Manufacturing with a Robust and Efficient Topology Optimization Algorithm Based on the Function Representation. Applied Sciences (Switzerland), 2021, 11, 7409.	1.3	2
14	Modification of Mechanical Properties in Directed Energy Deposition by a Static Magnetic Field: Experimental and Theoretical Analysis. Materials, 2021, 14, 5190.	1.3	4
15	Shape memory behavior of unidirectional pultruded laminate. Composites Part A: Applied Science and Manufacturing, 2021, 150, 106609.	3.8	22
16	Surface Modification of Aluminum 6061-O Alloy by Plasma Electrolytic Oxidation to Improve Corrosion Resistance Properties. Coatings, 2021, 11, 4.	1.2	17
17	Hardening of Additive Manufactured 316L Stainless Steel by Using Bimodal Powder Containing Nanoscale Fraction. Materials, 2021, 14, 115.	1.3	15
18	Anisotropy of Mechanical Properties and Residual Stress in Additively Manufactured 316L Specimens. Materials, 2021, 14, 7176.	1.3	17

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19	Modeling of cracking during pultrusion of large-size profiles. Composite Structures, 2020, 235, 111801.	3.1	22
20	Efficient contouring of functionally represented objects for additive manufacturing. CAD Computer Aided Design, 2020, 129, 102917.	1.4	8
21	Evolution of SLA-Based Al2O3 Microstructure During Additive Manufacturing Process. Materials, 2020, 13, 3928.	1.3	9
22	Design and Fabrication of Complex-Shaped Ceramic Bone Implants via 3D Printing Based on Laser Stereolithography. Applied Sciences (Switzerland), 2020, 10, 7138.	1.3	16
23	Mathematical simulation the kinetics of polymerization of vinyl ester resin using in pultrusion. IOP Conference Series: Materials Science and Engineering, 2020, 747, 012010.	0.3	3
24	Effect of Additives on Cure Kinetics of Pultrusion Resins. Procedia Manufacturing, 2020, 47, 920-924.	1.9	4
25	Pultruded materials and structures: A review. Journal of Composite Materials, 2020, 54, 4081-4117.	1.2	114
26	Role of Nitrogen and Oxygen in Capacitance Formation of Carbon Nanowalls. Journal of Physical Chemistry Letters, 2020, 11, 4859-4865.	2.1	18
27	Investigation on the Shape Distortions of Pultruded Profiles at Different Pulling Speed. Procedia Manufacturing, 2020, 47, 1-5.	1.9	18
28	Model of graphene nanobubble: Combining classical density functional and elasticity theories. Journal of Chemical Physics, 2020, 152, 054705.	1.2	10
29	Edge flow profile under radial injection at constant pressure: Analytical predictions vs. experiment. Composite Structures, 2020, 242, 112101.	3.1	3
30	Spring-in experimental evaluation of L-shaped pultruded profiles. IOP Conference Series: Materials Science and Engineering, 2020, 747, 012013.	0.3	17
31	Modeling of the phase transition inside graphene nanobubbles filled with ethane. Physical Chemistry Chemical Physics, 2019, 21, 18099-18104.	1.3	10
32	Accelerated Boundary Element Method for 3D Simulations of Bubble Cluster Dynamics in an Acoustic Field. Communications in Computer and Information Science, 2019, , 335-349.	0.4	2
33	Numerical Study of Interaction of Two Deformable Bubbles in an Acoustic Field. Journal of Applied Mechanics and Technical Physics, 2019, 60, 661-668.	0.1	2
34	Flexible Polycaprolactone and Polycaprolactone/Graphene Scaffolds for Tissue Engineering. Materials, 2019, 12, 2991.	1.3	36
35	Numerical simulation of sintering for 3D-printed ceramics via SOVS model. Ceramics International, 2019, 45, 19027-19035.	2.3	16
36	Obtaining the state of matter inside graphene nanobubble from its shape. Journal of Physics: Conference Series, 2019, 1147, 012006.	0.3	5

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37	Three-Dimensional Simulation of Stokes Flow Around a Rigid Structure Using FMM/GPU Accelerated BEM. Communications in Computer and Information Science, 2019, , 427-438.	0.4	2
38	Liquidâ€“gas phase transition of Ar inside graphite nanobubbles on the graphite substrate. Nanotechnology, 2019, 30, 215701.	1.3	11
39	Zeros of partition functions in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>N</mml:mi><mml:mi>P</mml:mi><mml:mi>T</mml:mi> ensemble. Physical Review E, 2019, 100, 052118.	0.8	0
40	Towards Creation of Ceramic-Based Low Permeability Reference Standards. Materials, 2019, 12, 3886.	1.3	4
41	Structure control of 316L stainless steel through an additive manufacturing. Letters on Materials, 2019, 9, 551-555.	0.2	9
42	CNT and polyaniline based sensors for the detection of acid penetration in polymer composite. Composites Science and Technology, 2018, 159, 111-118.	3.8	41
43	Mathematical simulation of pultrusion processes: A review. Composite Structures, 2018, 184, 153-177.	3.1	62
44	Numerical and Experimental Study of Bubble Dynamics in Contact with a Solid Surface. Fluid Dynamics, 2018, 53, 337-346.	0.2	6
45	Boundary Element Modeling of Dynamics of a Bubble in Contact with a Solid Surface at Low Reynolds Numbers. Mathematical Models and Computer Simulations, 2018, 10, 209-217.	0.1	3
46	Ambient Condition Production of High Quality Reduced Graphene Oxide. Advanced Materials Interfaces, 2018, 5, 1800737.	1.9	14
47	GPU Acceleration of Bubble-Particle Dynamics Simulation. Communications in Computer and Information Science, 2018, , 235-250.	0.4	0
48	Experimental and theoretical study of multiscale damage-failure transition in very high cycle fatigue. Physical Mesomechanics, 2017, 20, 78-89.	1.0	12
49	Modes of self-organization of diluted bubbly liquids in acoustic fields: One-dimensional theory. Journal of the Acoustical Society of America, 2017, 141, 1190-1202.	0.5	9
50	Effect of elastic contrast on the contribution of helical fibers into overall stiffness of a composites. International Journal of Engineering Science, 2017, 120, 31-50.	2.7	16
51	Atomistic study of the solid state inside graphene nanobubbles. Scientific Reports, 2017, 7, 17906.	1.6	24
52	High-Performance BEM Simulation of 3D Emulsion Flow. Communications in Computer and Information Science, 2017, , 317-330.	0.4	6
53	Non-thermal quenched damage phenomena: The application of the mean-field approach for the three-dimensional case. AIP Advances, 2016, 6, 095116.	0.6	1
54	Robust acoustic wave manipulation of bubbly liquids. Applied Physics Letters, 2016, 108, 134102.	1.5	5

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55	Mathematical modeling of a water-in-oil emulsion droplet behavior under the microwave impact. Journal of Physics: Conference Series, 2015, 574, 012110.	0.3	5
56	Dynamics of fluid bridges between a rising capillary tube and a substrate. Microfluidics and Nanofluidics, 2015, 18, 807-818.	1.0	2
57	Mechanical properties, tribological behavior, and biocompatibility of high-density polyethylene/carbon nanofibers nanocomposites. Journal of Composite Materials, 2015, 49, 1503-1512.	1.2	10
58	Study of the tensile strength of a liquid by molecular dynamics methods. High Temperature, 2015, 53, 406-412.	0.1	11
59	Thermal properties of carbon nanofiber reinforced high-density polyethylene nanocomposites. Journal of Composite Materials, 2015, 49, 795-805.	1.2	15
60	BEM-based numerical study of three-dimensional compressible bubble dynamics in stokes flow. Computational Mathematics and Mathematical Physics, 2014, 54, 1481-1488.	0.2	2
61	An efficient method for simulation of the dynamics of a large number of deformable droplets in the stokes regime. Doklady Physics, 2014, 59, 236-240.	0.2	2
62	Boundary Element Simulations of Free and Forced Bubble Oscillations in Potential Flow. , 2014, , .		5
63	Molecular Dynamics Simulations of Nanobubbles Formation Near the Substrate in a Liquid With Dissolved Gas. , 2014, , .		1
64	Nonlinear Acoustics in Fluids. Springer Handbooks, 2014, , 265-314.	0.3	6
65	Plasma at Atmospheric Pressure: Fluidic Modeling and Parallel Computing. IEEE Transactions on Plasma Science, 2013, 41, 2962-2978.	0.6	1
66	Waves of acoustically induced transparency in bubbly liquids: theory and experiment. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
67	Bubble cluster dynamics in an acoustic field. Journal of the Acoustical Society of America, 2013, 133, 3727-3738.	0.5	26
68	High-Speed Aerosol Flow Through Micro-Nozzles for Direct-Write Processes. , 2013, , .		1
69	Waves of Acoustically Induced Transparency in Bubbly Liquids: Theoretical Prediction and Experimental Validation. , 2013, , .		1
70	Aerosol Flow Through a Converging-Diverging Micro-Nozzle. Nonlinear Engineering, 2013, 2, .	1.4	8
71	Wear and Friction of Carbon Nanofiber-Reinforced HDPE Composites. Journal of Tribology, 2012, 134, .	1.0	17
72	Numerical Study of Emulsion Droplet in Electromagnetic Field. , 2012, , .		0

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73	Dispersion Flow in Microchannels. , 2012, , .		2
74	Modeling of Linear Atmospheric Plasma Reactor. , 2012, , .		0
75	Thermodynamic Effects in Porous Media Saturated With Fluids: Application to Wellbore Thermometry. , 2012, , .		0
76	Wear of Carbon Nanofiber Reinforced HDPE Nanocomposites Under Dry Sliding Condition. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	7
77	A Review on Aerosol-Based Direct-Write and Its Applications for Microelectronics. Journal of Nanotechnology, 2012, 2012, 1-22.	1.5	114
78	Tribological Behavior of High Density Polyethylene Nanocomposites With Silane Treated Carbon Nanofibers. , 2011, , .		1
79	Hydroelastic analysis of an axially loaded compliant fiber wetted with a droplet. Journal of Applied Physics, 2010, 108, .	1.1	15
80	Capillary-based liquid microdroplet deposition. Applied Physics Letters, 2010, 97, .	1.5	16
81	Liquid Deposition at Micro and Nanoscale. , 2010, , .		0
82	Experimental Characterization of Aerosol Flow Through a Micro-Capillary. , 2010, , .		0
83	Collimated Aerosol Beam Deposition: Sub-5-mum Resolution of Printed Actives and Passives. IEEE Transactions on Advanced Packaging, 2010, 33, 421-427.	1.7	18
84	Si[sub 6]H[sub 12]/Polymer Inks for Electrospinning a-Si Nanowire Lithium Ion Battery Anodes. Electrochemical and Solid-State Letters, 2010, 13, A143.	2.2	24
85	CAB-DW™ for 5 µm trace-width deposition of solar cell metallization top-contacts. , 2009, , .		0
86	Aerosol Flow Through a Micro-Capillary. , 2009, , .		7
87	A radial infusion model for transverse permeability measurements of fiber reinforcement in composite materials. Polymer Composites, 2009, 30, 907-917.	2.3	9
88	Analysis of a radial infusion model for in-plane permeability measurements of fiber reinforcement in composite materials. Polymer Composites, 2009, 30, 1788-1799.	2.3	5
89	Polymerâ€“metal complexes as a catalyst for the growth of carbon nanostructures. Carbon, 2009, 47, 3137-3139.	5.4	12
90	Adsorption of Petroleum Asphaltenes onto Reservoir Rock Sands Studied by Near-Infrared (NIR) Spectroscopy. Energy & Fuels, 2009, 23, 1230-1236.	2.5	125

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91	Evalutation of In-Plane and Transverse Permeability of Flax Fiber Preforms for Biocomposite Materials. Journal of Biobased Materials and Bioenergy, 2009, 3, 156-164.	0.1	7
92	Aerosol flow through a long micro-capillary: collimated aerosol beam. Microfluidics and Nanofluidics, 2008, 5, 215-224.	1.0	35
93	Printed silicon as diode and FET materials â€“ Preliminary results. Journal of Non-Crystalline Solids, 2008, 354, 2623-2626.	1.5	42
94	Nanoâ€fabrication: A review. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers,Series A/Chung-kuo Kung Ch'eng Hsuch K'an, 2007, 30, 441-446.	0.6	11
95	Nonlinear Acoustics in Fluids. , 2007, , 257-297.		11
96	Diffusion stability of bubbles in a cluster. Journal of Applied Mechanics and Technical Physics, 2007, 48, 501-507.	0.1	3
97	Hydrodynamic simulation of air bubble implosion using a level set approach. Journal of Computational Physics, 2006, 215, 98-132.	1.9	63
98	Dynamics of a bubble cluster in an acoustic field. Acoustical Physics, 2005, 51, 705-712.	0.2	7
99	Theory of supercompression of vapor bubbles and nanoscale thermonuclear fusion. Physics of Fluids, 2005, 17, 107106.	1.6	87
100	STRUCTURE FORMATION IN ACOUSTIC CAVITATION. Multiphase Science and Technology, 2005, 17, 343-371.	0.2	3
101	THE ANALYSIS OF LINEAR AND NONLINEAR BUBBLE CLUSTER DYNAMICS. Multiphase Science and Technology, 2005, 17, 225-256.	0.2	7
102	Inviscid dynamics of a wet foam drop with monodisperse bubble size distribution. Physics of Fluids, 2002, 14, 1886-1894.	1.6	11
103	Dynamics of a bubble in a liquid under laser pulse action. Journal of Applied Mechanics and Technical Physics, 2002, 43, 43-49.	0.1	1
104	Soundâ€“ultrasound interaction in bubbly fluids: Theory and possible applications. Physics of Fluids, 2001, 13, 3582-3598.	1.6	49
105	Two-dimensional mechanisms of interaction between ultrasound and sound in bubbly liquids: Interaction equations. Acoustical Physics, 2001, 47, 10-15.	0.2	8
106	Mechanisms of interaction between ultrasound and sound in liquids with bubbles: Singular focusing. Acoustical Physics, 2001, 47, 140-144.	0.2	3
107	On the forced oscillations of a small gas bubble in a spherical liquid-filled flask. Journal of Fluid Mechanics, 2000, 414, 47-73.	1.4	31
108	Bubble collapse and shock wave formation in sonoluminescence. AIP Conference Proceedings, 2000, , .	0.3	4

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109	Dynamics of bubble clusters. AIP Conference Proceedings, 2000, , .	0.3	4
110	Forced oscillations of a gas bubble in a spherical volume of a compressible liquid. Journal of Applied Mechanics and Technical Physics, 1999, 40, 285-291.	0.1	4
111	Hydrodynamics, Acoustics and Transport in Sonoluminescence Phenomena. , 1999, , 127-138.		5
112	THE RESONANT SUPERCOMPRESSION AND SONOLUMINESCENCE OF A GAS BUBBLE IN A LIQUID-FILLED FLASK. Chemical Engineering Communications, 1998, 168, 145-169.	1.5	4
113	Movement stability analysis of a pipe string in a thixotropic fluid. Journal of Engineering Physics and Thermophysics, 1994, 66, 353-359.	0.2	3
114	Nonlocal symmetries. Heuristic approach. Journal of Soviet Mathematics, 1991, 55, 1401-1450.	0.0	158
115	Propagation of sound perturbations in heterogeneous gas-liquid systems. Journal of Engineering Physics, 1986, 50, 276-280.	0.0	3
116	Propagation of nonlinear waves in gas-liquid media with a gas content variable in space. Fluid Dynamics, 1986, 21, 161-164.	0.2	4
117	Transition of porous explosive combustion into detonation. Combustion, Explosion and Shock Waves, 1984, 20, 63-69.	0.3	11
118	Transition of powdered explosive convective combustion into detonation. Combustion, Explosion and Shock Waves, 1983, 19, 618-621.	0.3	2
119	Nonstationary combustion regimes in porous powders. Combustion, Explosion and Shock Waves, 1983, 19, 297-304.	0.3	6
120	Structure of detonation waves in gas suspensions of fuel containing the oxidant. Fluid Dynamics, 1981, 16, 675-681.	0.2	2