

Valentin A Gorodtsov

List of Publications by Year in descending order

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110
papers

928
citations

471371

17
h-index

580701

25
g-index

110
all docs

110
docs citations

110
times ranked

364
citing authors

#	ARTICLE	IF	CITATIONS
1	Auxetic mechanics of crystalline materials. <i>Mechanics of Solids</i> , 2010, 45, 529-545.	0.3	53
2	Negative Poisson's ratio for cubic crystals and nano/microtubes. <i>Physical Mesomechanics</i> , 2014, 17, 97-115.	1.0	46
3	Equilibrium diamond-like carbon nanostructures with cubic anisotropy: Elastic properties. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1295-1302.	0.7	37
4	Auxetics among Materials with Cubic Anisotropy. <i>Mechanics of Solids</i> , 2020, 55, 461-474.	0.3	34
5	Effect of residual surface stress and surface elasticity on deformation of nanometer spherical inclusions in an elastic matrix. <i>Physical Mesomechanics</i> , 2010, 13, 318-328.	1.0	29
6	Extreme values of Young's modulus and Poisson's ratio of hexagonal crystals. <i>Mechanics of Materials</i> , 2019, 134, 1-8.	1.7	29
7	Elastic Properties of Fullerites and Diamond-Like Phases. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800049.	0.7	28
8	Elastic properties of diamond-like phases based on carbon nanotubes. <i>Diamond and Related Materials</i> , 2019, 97, 107411.	1.8	27
9	Three-layered plate exhibiting auxeticity based on stretching and bending modes. <i>Composite Structures</i> , 2018, 194, 643-651.	3.1	25
10	Auxetics among 6-constant tetragonal crystals. <i>Letters on Materials</i> , 2015, 5, 409-413.	0.2	24
11	Young's modulus and Poisson's ratio for seven-constant tetragonal crystals and nano/microtubes. <i>Physical Mesomechanics</i> , 2015, 18, 213-222.	1.0	23
12	Equilibrium structures of carbon diamond-like clusters and their elastic properties. <i>Physics of the Solid State</i> , 2017, 59, 820-828.	0.2	22
13	Stability, elastic properties and deformation behavior of graphene-based diamond-like phases. <i>Computational Materials Science</i> , 2020, 172, 109355.	1.4	22
14	Cubic auxetics. <i>Doklady Physics</i> , 2011, 56, 399-402.	0.2	21
15	A Compact Analytic Model of the Strain Field Induced by Through Silicon Vias. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 777-782.	1.6	19
16	Classification of cubic auxetics. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2038-2043.	0.7	19
17	The elastic properties of hexagonal auxetics under pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1261-1269.	0.7	18
18	Two-Layered Tubes from Cubic Crystals: Auxetic Tubes. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600815.	0.7	18

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19	Negative Poisson's ratio for six-constant tetragonal nano/microtubes. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 1580-1586.	0.7	17
20	Auxeticity in nano/microtubes produced from orthorhombic crystals. <i>Smart Materials and Structures</i> , 2016, 25, 054006.	1.8	17
21	Rayleigh and Love surface waves in isotropic media with negative Poisson's ratio. <i>Mechanics of Solids</i> , 2014, 49, 422-434.	0.3	16
22	Longitudinal elastic tension of two-layered plates from isotropic auxetics-nonauxetics and cubic crystals. <i>European Journal of Mechanics, A/Solids</i> , 2017, 63, 122-127.	2.1	16
23	Thin Homogeneous Two-Layered Plates of Cubic Crystals with Different Layer Orientation. <i>Physical Mesomechanics</i> , 2019, 22, 261-268.	1.0	16
24	Study of internal waves in the case of rapid horizontal motion of cylinders and spheres. <i>Fluid Dynamics</i> , 1982, 17, 893-898.	0.2	15
25	Young's modulus of cubic auxetics. <i>Letters on Materials</i> , 2011, 1, 127-132.	0.2	15
26	Similarity and weak closing relations for symmetric free turbulence. <i>Fluid Dynamics</i> , 1979, 14, 31-37.	0.2	14
27	Mesomechanics of multiwall carbon nanotubes and nanowhiskers. <i>Physical Mesomechanics</i> , 2009, 12, 38-53.	1.0	14
28	Chiral elasticity of nano/microtubes from hexagonal crystals. <i>Acta Mechanica</i> , 2018, 229, 2189-2201.	1.1	14
29	Shear modulus of cubic crystals. <i>Letters on Materials</i> , 2012, 2, 21-24.	0.2	14
30	Mechanical characteristics for seven-constant rhombohedral crystals and their nano/microtubes. <i>Letters on Materials</i> , 2016, 6, 93-97.	0.2	14
31	Variability of elastic properties of hexagonal auxetics. <i>Doklady Physics</i> , 2011, 56, 602-605.	0.2	13
32	Spreading of a film of nonlinearly viscous liquid over a horizontal smooth solid surface. <i>Journal of Engineering Physics</i> , 1989, 57, 879-884.	0.0	12
33	Relation of Poisson's ratio on average with Young's modulus. Auxetics on average. <i>Doklady Physics</i> , 2012, 57, 174-178.	0.2	12
34	Young's moduli and Poisson's ratios of curvilinear anisotropic hexagonal and rhombohedral nanotubes. <i>Nanotubes-auxetics. Doklady Physics</i> , 2013, 58, 400-404.	0.2	12
35	Extreme values of the shear modulus for hexagonal crystals. <i>Scripta Materialia</i> , 2017, 140, 55-58.	2.6	11
36	About negativity of the Poisson's ratio for anisotropic materials. <i>Doklady Physics</i> , 2009, 54, 546-548.	0.2	9

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37	Modeling of the Mechanical Properties of Chiral Metallic Nanotubes. <i>Physical Mesomechanics</i> , 2020, 23, 477-486.	1.0	9
38	Slow motions of a liquid drop in a viscous liquid. <i>Journal of Applied Mechanics and Technical Physics</i> , 1976, 16, 865-868.	0.1	8
39	Poynting's effect of cylindrically anisotropic nano/microtubes. <i>Physical Mesomechanics</i> , 2016, 19, 229-238.	1.0	8
40	Chiral Fe nanotubes with both negative Poisson's ratio and Poynting's effect. Atomistic simulation. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 475304.	0.7	8
41	On the Modeling of Surface and Interface Elastic Effects in Case of Eigenstrains. <i>Advanced Structured Materials</i> , 2013, , 167-180.	0.3	7
42	Torsion of cylindrically anisotropic nano/microtubes from seven-constant tetragonal crystals. Poynting's effect. <i>Physical Mesomechanics</i> , 2016, 19, 349-354.	1.0	7
43	Two-layer tubes from cubic crystals. <i>Doklady Physics</i> , 2016, 61, 604-610.	0.2	7
44	Tension of thin two-layered plates of hexagonal crystals. <i>Composite Structures</i> , 2019, 209, 453-459.	3.1	7
45	Average Poisson's ratio for crystals. Hexagonal auxetics. <i>Letters on Materials</i> , 2013, 3, 7-11.	0.2	7
46	Two-dimensional problem for internal waves generated by moving singular sources. <i>Fluid Dynamics</i> , 1981, 16, 219-224.	0.2	5
47	Specific features of the strength of carbon whiskers. <i>Technical Physics Letters</i> , 2006, 32, 837-839.	0.2	5
48	Linear Poynting's effect at torsion and extension of curvilinearly anisotropic tubes. <i>Doklady Physics</i> , 2015, 60, 396-399.	0.2	5
49	Torsion of cylindrically anisotropic nano/microtubes of the cubic crystals obtained by rolling the crystal planes (011). <i>Letters on Materials</i> , 2016, 6, 249-252.	0.2	5
50	Variability of elastic properties of chiral monoclinic tubes under extension and torsion. <i>Letters on Materials</i> , 2019, 9, 202-206.	0.2	5
51	Wave drag of rapidly and horizontally moving Rankine ovoid in uniformly stratified fluid. <i>Progress in Natural Science: Materials International</i> , 2008, 18, 723-727.	1.8	4
52	Deformation behaviour of re-entrant carbon honeycomb structures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 447, 012035.	0.3	4
53	Elastic Properties of Chiral Metallic Nanotubes Formed from Cubic Crystals. <i>Physical Mesomechanics</i> , 2021, 24, 464-474.	1.0	4
54	Stretching of chiral tubes obtained by rolling-up plates of cubic crystals with various orientations. <i>Journal of Mechanics of Materials and Structures</i> , 2021, 16, 139-157.	0.4	4

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55	The Extreme Values of Young's Modulus and the Negative Poisson's Ratios of Rhombic Crystals. Crystals, 2021, 11, 863.	1.0	4
56	Out-of-plane tension of thin two-layered plates of cubic crystals. Physica Status Solidi (B): Basic Research, 0, , 2100184.	0.7	4
57	Final period of decay of turbulent motions of viscoelastic fluids. Journal of Applied Mechanics and Technical Physics, 1965, 6, 61-63.	0.1	3
58	Description of the reduction in turbulent friction drag in viscoelastic fluids. Journal of Engineering Physics, 1973, 25, 1559-1566.	0.0	3
59	Radiation of internal waves by periodically moving sources. Journal of Applied Mechanics and Technical Physics, 1984, 24, 521-526.	0.1	3
60	Convective heat conduction and diffusion in one-dimensional hydrodynamics. Journal of Experimental and Theoretical Physics, 1999, 89, 872-879.	0.2	3
61	Finite speed of diffusion propagation in a two-component continuous medium. Prikladnaya Matematika I Mekhanika, 2001, 65, 353-356.	0.4	3
62	Variability of the elastic properties of multiwalled carbon nanotubes. Technical Physics Letters, 2005, 31, 18-20.	0.2	3
63	Simulation of stress-strain state in SiGe island heterostructures. Mechanics of Solids, 2010, 45, 312-323.	0.3	3
64	To the description of multi-layered nanotubes in models of cylindrically anisotropic elasticity. Physical Mesomechanics, 2010, 13, 12-20.	1.0	3
65	Modeling and Optimization of Edge Dislocation Stressors. IEEE Electron Device Letters, 2013, 34, 948-950.	2.2	3
66	On surface elasticity theory for plane interfaces. Physical Mesomechanics, 2014, 17, 30-38.	1.0	3
67	Extreme values of Young's modulus of tetragonal crystals. Mechanics of Materials, 2021, 154, 103724.	1.7	3
68	Description of mechanical properties of carbon nanotubes. Tube wall thickness problem. Size effect. Part 1. Letters on Materials, 2011, 1, 185-189.	0.2	3
69	Description of mechanical properties of carbon nanotubes. Tube wall thickness problem. Size effect. Part 2. Letters on Materials, 2011, 1, 190-193.	0.2	3
70	On similarity laws for the developed turbulence of dilute polymer solutions. Journal of Engineering Physics, 1973, 25, 1467-1474.	0.0	2
71	Radiation of internal waves during vertical motion of a body through a nonuniform liquid. Journal of Engineering Physics, 1980, 39, 1062-1065.	0.0	2
72	Diffusion spreading of localized hydrodynamic disturbances under the action of random forces. Prikladnaya Matematika I Mekhanika, 1988, 52, 165-170.	0.4	2

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73	Radiative forces acting on point sources moving in a stratified fluid. Journal of Experimental and Theoretical Physics, 1997, 85, 276-284.	0.2	2
74	SiGe Quantum Rings by Ultra-high Vacuum Chemical Vapor Deposition. ECS Transactions, 2009, 16, 647-657.	0.3	2
75	Variability of Young's modulus and Poisson's ratio of hexagonal crystals. IOP Conference Series: Materials Science and Engineering, 2018, 347, 012019.	0.3	2
76	Out-of-Plane Tension of Thin Two-Layered Plates of Identically Oriented Hexagonal Crystals. Physical Mesomechanics, 2021, 24, 146-154.	1.0	2
77	Effective elastic properties variability for two-layered plates of hexagonal and cubic crystals under longitudinal tension. Composite Structures, 2021, 274, 114300.	3.1	2
78	Model of the dynamic layer in the wall turbulence of a liquid with relaxation stress. Fluid Dynamics, 1975, 9, 35-46.	0.2	1
79	Power laws of reduced turbulent friction for polymer solutions. Journal of Engineering Physics, 1975, 28, 275-282.	0.0	1
80	Turbulence with low heterogeneity and anisotropy. Journal of Engineering Physics, 1975, 28, 749-752.	0.0	1
81	Turbulent flow of a polymer solution over a flat plate. Journal of Engineering Physics, 1976, 31, 1069-1074.	0.0	1
82	Slow motions of a rigid sphere in incompressible viscoelastic fluids. Fluid Dynamics, 1977, 11, 183-189.	0.2	1
83	Evolution of axisymmetric vorticity distributions in an ideal incompressible stratified liquid. Prikladnaya Matematika I Mekhanika, 1983, 47, 479-484.	0.4	1
84	High-speed asymptotic form of the wave resistance of bodies in a uniformly stratified liquid. Journal of Applied Mechanics and Technical Physics, 1991, 32, 331-337.	0.1	1
85	Wave drag of an ellipsoid of revolution for the case of its rapid vertical motion in homogeneous stratified fluid. Doklady Physics, 2007, 52, 165-167.	0.2	1
86	On modeling the mechanical behavior of heterostructures with quantum dots. Russian Physics Journal, 2009, 52, 1177-1185.	0.2	1
87	A mechanical model of the contact interaction between the atomic force microscope measuring element and a surface under investigation. Nanotechnologies in Russia, 2009, 4, 525-529.	0.7	1
88	Small Wave " Vortex Disturbances in Stratified Fluid. Procedia IUTAM, 2013, 8, 111-118.	1.2	1
89	The degeneration of turbulence in a liquid with internal rotation. Journal of Applied Mechanics and Technical Physics, 1971, 8, 29-31.	0.1	0
90	Normal stresses in a viscoelastic medium with decaying turbulent motion. Journal of Applied Mechanics and Technical Physics, 1971, 8, 40-44.	0.1	0

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91	Spectrum of developed turbulence of incompressible viscoelastic fluids. Fluid Dynamics, 1972, 7, 20-30.	0.2	0
92	Role of the scalar structure parameter in the description of the rheological behavior of elastico-viscous liquids. Polymer Mechanics, 1972, 5, 972-982.	0.1	0
93	Drag reduction in rough pipes by water-soluble polymer additives. Fluid Dynamics, 1972, 3, 117-118.	0.2	0
94	Logarithmic equations for the resistance of turbulent friction for a viscous liquid and polymer solutions. Journal of Engineering Physics, 1975, 29, 1403-1407.	0.0	0
95	Slow nonstationary motions of viscoelastic liquids. Fluid Dynamics, 1976, 10, 711-716.	0.2	0
96	Turbulent boundary layer of polymer solutions with a flow-retarding pressure gradient. Journal of Engineering Physics, 1979, 37, 1396-1401.	0.0	0
97	Similarity of undeveloped turbulent near-wall flows. Journal of Engineering Physics, 1979, 37, 1415-1418.	0.0	0
98	Laminated structures in the final stage in the decay of turbulence in stratified fluids. Fluid Dynamics, 1986, 20, 552-559.	0.2	0
99	Effect of homogeneous shear flow on small long-lived perturbations in a stratified fluid. Fluid Dynamics, 1988, 23, 237-244.	0.2	0
100	Collapse of asymmetric perturbations in a stratified fluid. Fluid Dynamics, 1992, 26, 834-840.	0.2	0
101	Fast asymptotic form of the resistance of bodies in a waveguide layer of non-uniform fluids. Prikladnaya Matematika I Mekhanika, 1992, 56, 222-228.	0.4	0
102	Precursor waves associated with the motion of sources of variable intensity in a stratified fluid. Fluid Dynamics, 1994, 29, 232-237.	0.2	0
103	Radiation of internal gravitational waves in the case of uniform motion of sources of variable amplitude (the plane problem). Journal of Applied Mechanics and Technical Physics, 1994, 34, 653-660.	0.1	0
104	Stochastic Kadomtsev-Petviashvili equation. Journal of Experimental and Theoretical Physics, 2000, 90, 1105-1113.	0.2	0
105	The anomalous diffusion of wave disturbances in hydrodynamic-type systems. Prikladnaya Matematika I Mekhanika, 2003, 67, 565-574.	0.4	0
106	Wave drag of an ellipsoid of revolution rapidly moving in a horizontal direction in a uniformly stratified fluid. Fluid Dynamics, 2006, 41, 415-423.	0.2	0
107	Drag increment of internal waves generated by horizontally moving spheroid in supercritical regime. Acta Mechanica Sinica/Lixue Xuebao, 2008, 24, 127-132.	1.5	0
108	Modeling of mechanical effects related to operation of atomic force microscopes. Nanotechnologies in Russia, 2008, 3, 378-390.	0.7	0

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109	Reply to "Comment on 'A Compact Analytic Model of the Strain Field Induced by Through Silicon Vias'". IEEE Transactions on Electron Devices, 2015, 62, 3106-3106.	1.6	0
110	Deformation of Spherical Inclusion in an Elastic Body with Account for Influence of Interface Considered as Infinitesimal Layer with Abnormal Properties. Advanced Structured Materials, 2017, , 163-169.	0.3	0