

Robert Goldstein

List of Publications by Year in descending order

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#	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	Modeling of Bonding at an Interface Crack. <i>International Journal of Fracture</i> , 1999, 99, 53-79.	1.1	42
4	The modified Cam-Clay (MCC) model: cyclic kinematic deviatoric loading. <i>Archive of Applied Mechanics</i> , 2016, 86, 2021-2031.	1.2	36
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	Mechanics of deformation and fracture of nanomaterials and nanotechnology. <i>Physical Mesomechanics</i> , 2007, 10, 235-246.	1.0	23
7	An approach to prediction of microstructure formation near friction surfaces at large plastic strains. <i>Physical Mesomechanics</i> , 2015, 18, 223-227.	1.0	23
8	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
9	Material scale length as a measure of fracture toughness in fracture mechanics of plastic materials. <i>International Journal of Fracture</i> , 1978, 14, 185-201.	1.1	22
10	Application of invariant integrals to the problems of defect identification. <i>International Journal of Fracture</i> , 2007, 147, 45-54.	1.1	21
11	Cubic auxetics. <i>Doklady Physics</i> , 2011, 56, 399-402.	0.2	21
12	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
13	Classification of cubic auxetics. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2038-2043.	0.7	19
14	Initiation of a secondary crack across a frictional interface. <i>Engineering Fracture Mechanics</i> , 2015, 140, 92-105.	2.0	19
15	The elastic properties of hexagonal auxetics under pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1261-1269.	0.7	18
16	Two-Layered Tubes from Cubic Crystals: Auxetic Tubes. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600815.	0.7	18
17	Fracture structure near a longitudinal shear macrorupture. <i>Mechanics of Solids</i> , 2012, 47, 505-516.	0.3	17
18	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

#	ARTICLE	IF	CITATIONS
19	Auxeticity in nano/microtubes produced from orthorhombic crystals. <i>Smart Materials and Structures</i> , 2016, 25, 054006.	1.8	17
20	Axisymmetric problem of a crack at the interface of layers in a multi-layered medium. <i>International Journal of Engineering Science</i> , 1976, 14, 335-352.	2.7	16
21	Successive development of the structure of a fracture near the front of a longitudinal shear crack. <i>Doklady Physics</i> , 2012, 57, 281-284.	0.2	16
22	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
23	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
24	Mesomechanics of multiple cracking of brittle coatings in a loaded solid. <i>International Journal of Fracture</i> , 2008, 150, 37-53.	1.1	14
25	Mesomechanics of multiwall carbon nanotubes and nanowhiskers. <i>Physical Mesomechanics</i> , 2009, 12, 38-53.	1.0	14
26	Kinetics of crack formation and growth on the material interface. <i>Mechanics of Solids</i> , 2012, 47, 400-414.	0.3	14
27	Chiral elasticity of nano/microtubes from hexagonal crystals. <i>Acta Mechanica</i> , 2018, 229, 2189-2201.	1.1	14
28	Variability of elastic properties of hexagonal auxetics. <i>Doklady Physics</i> , 2011, 56, 602-605.	0.2	13
29	Modeling electromigration and the void nucleation in thin-film interconnects of integrated circuits. <i>International Journal of Fracture</i> , 2001, 109, 91-121.	1.1	12
30	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
31	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
32	On constructing constitutive equations in material thin layer near friction surfaces in material forming processes. <i>Doklady Physics</i> , 2015, 60, 39-41.	0.2	12
33	Relaxation scales and the structure of fractures in the dynamics of sea ice. <i>Cold Regions Science and Technology</i> , 2009, 58, 29-35.	1.6	11
34	Extreme values of the shear modulus for hexagonal crystals. <i>Scripta Materialia</i> , 2017, 140, 55-58.	2.6	11
35	About negativity of the Poisson's ratio for anisotropic materials. <i>Doklady Physics</i> , 2009, 54, 546-548.	0.2	9
36	Some aspects of strength in sea ice mechanics. <i>Physical Mesomechanics</i> , 2015, 18, 139-148.	1.0	9

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37	Poynting's effect of cylindrically anisotropic nano/microtubes. <i>Physical Mesomechanics</i> , 2016, 19, 229-238.	1.0	8
38	On application of classical Eshelby approach to calculating effective elastic moduli of dispersed composites. <i>International Journal of Fracture</i> , 2007, 147, 55-66.	1.1	7
39	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
40	Two-layer tubes from cubic crystals. <i>Doklady Physics</i> , 2016, 61, 604-610.	0.2	7
41	Upper bound limit load solutions for a round welded bar with an internal axisymmetric crack. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1999, 22, 775-780.	1.7	7
42	A MODEL FOR THE BEHAVIOUR OF MATERIALS WITH CRACKS UNDER HYDROGEN EMBRITTLEMENT CONDITIONS. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1997, 20, 1269-1277.	1.7	6
43	To determination of the strength of nanodimensional objects. <i>Mechanics of Solids</i> , 2008, 43, 453-469.	0.3	6
44	Kh. A. Rakhmatulin's scientific legacy in the field of mechanics of deformable rigid bodies. <i>Mechanics of Solids</i> , 2010, 45, 3-9.	0.3	6
45	Development of multiple ordered fracture in an elastic homogeneous, structured and layered medium. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2014, 37, 1292-1305.	1.7	6
46	Surface roughness induced attenuation and changes in the propagation velocity of long Rayleigh-type waves. <i>Acta Mechanica</i> , 1992, 91, 235-243.	1.1	5
47	Distributions of stress and plastic strain in notched tensile bars. <i>International Journal of Fracture</i> , 1998, 91, 1-11.	1.1	5
48	Editorial on Professor V. V. Bolotin. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2003, 26, 711-713.	1.7	5
49	Application of invariant integrals to elastostatic inverse problems. <i>Comptes Rendus - Mecanique</i> , 2008, 336, 108-117.	2.1	5
50	Application of the method of multipole expansions in the 3D-elasticity problem for a medium with ordered system of spherical pores. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2009, 89, 504-510.	0.9	5
51	Kinetic equation for the grain size in processes of intense plastic deformation. <i>Doklady Physics</i> , 2009, 54, 553-556.	0.2	5
52	About brittle fracture in the vicinity of filled pores. <i>Continuum Mechanics and Thermodynamics</i> , 2010, 22, 555-569.	1.4	5
53	Experimental and theoretical investigation of formation of the oxygen-containing precipitate-dislocation loop system in silicon. <i>Physics of the Solid State</i> , 2011, 53, 527-538.	0.2	5
54	Conditions for Mode I crack deviation in orthotropic plane subjected to biaxial loading. <i>International Journal of Engineering Science</i> , 2012, 61, 36-47.	2.7	5

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55	Trajectories of principal stresses in the plane-stress state of material obeying the Tresca and Coulomb-Mohr yield conditions. Doklady Physics, 2014, 59, 460-462.	0.2	5
56	Linear Poynting's effect at torsion and extension of curvilinearly anisotropic tubes. Doklady Physics, 2015, 60, 396-399.	0.2	5
57	Influence of the form of material structure elements on the fracture scenario in a complex stress state. Mechanics of Solids, 2015, 50, 147-159.	0.3	5
58	Limit velocities of Lamb waves: Analytic and numerical studies. Mechanics of Solids, 2016, 51, 571-575.	0.3	5
59	Torsion of cylindrically anisotropic nano/microtubes of the cubic crystals obtained by rolling the crystal planes (011). Letters on Materials, 2016, 6, 249-252.	0.2	5
60	Application of direct variational method to the solution of mixed boundary value problems. International Journal for Numerical Methods in Engineering, 1978, 12, 1213-1239.	1.5	4
61	On a model of structured medium fracture under compression conditions. Mechanics of Solids, 2010, 45, 835-843.	0.3	4
62	Fundamental problems of solid mechanics in high technologies. Physical Mesomechanics, 2012, 15, 224-231.	1.0	4
63	Similarity of grain-size evolution near frictional interfaces and in the process of equal-channel angular pressing. Doklady Physics, 2013, 58, 177-180.	0.2	4
64	Study of forced vibrations of the Kelvin-Voigt model with an asymmetric spring. Mechanics of Solids, 2015, 50, 294-304.	0.3	4
65	Non-axisymmetric edge buckling of circular plates when heated. PNRPU Mechanics Bulletin, 2016, 1, 45-53.	0.1	4
66	Asymptotic solution of three-dimensional elasticity problems of elongated plane tensile cracks. International Journal of Fracture, 1986, 31, 83-104.	1.1	3
67	Plastic flow in a conical channel. Prikladnaya Matematika I Mekhanika, 2007, 71, 111-119.	0.4	3
68	Modeling of failure and lifetime of thin-film metal conductors in integrated circuits. Physical Mesomechanics, 2008, 11, 158-186.	1.0	3
69	Simulation of stress-strain state in SiGe island heterostructures. Mechanics of Solids, 2010, 45, 312-323.	0.3	3
70	To the description of multi-layered nanotubes in models of cylindrically anisotropic elasticity. Physical Mesomechanics, 2010, 13, 12-20.	1.0	3
71	Surface acoustic waves in the testing of layered media. The waves' sensitivity to variations in the properties of the individual layers. Prikladnaya Matematika I Mekhanika, 2013, 77, 51-56.	0.4	3
72	Modeling and Optimization of Edge Dislocation Stressors. IEEE Electron Device Letters, 2013, 34, 948-950.	2.2	3

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73	On surface elasticity theory for plane interfaces. <i>Physical Mesomechanics</i> , 2014, 17, 30-38.	1.0	3
74	Modeling of motion mechanism in the intermediate layer between contacting bodies in compression shear. <i>Mechanics of Solids</i> , 2016, 51, 284-297.	0.3	3
75	On The Formation of Large Scale Structural Features. <i>Solid Mechanics and Its Applications</i> , 2001, , 323-334.	0.1	3
76	Dependence of a crack growth path on the elastic moduli of an anisotropic solid. <i>International Journal of Fracture</i> , 2008, 150, 157-180.	1.1	2
77	SiGe Quantum Rings by Ultra-high Vacuum Chemical Vapor Deposition. <i>ECS Transactions</i> , 2009, 16, 647-657.	0.3	2
78	Strain Relaxation during Formation of Ge Nanolens Stacks. <i>Electrochemical and Solid-State Letters</i> , 2010, 13, K43.	2.2	2
79	Generalization of the Prandtl solution to the case of axisymmetric deformation of materials obeying the double shear model. <i>Mechanics of Solids</i> , 2012, 47, 654-664.	0.3	2
80	Von Kármán problem for a rotating permeable disk. <i>Fluid Dynamics</i> , 2012, 47, 50-57.	0.2	2
81	Simulation of variations in mechanical properties of polyurethane elastomers modified with carbon nanotubes. <i>Physical Mesomechanics</i> , 2013, 16, 93-98.	1.0	2
82	Scale Interaction and Ordering Effects at Fracture. <i>Procedia IUTAM</i> , 2014, 10, 180-192.	1.2	2
83	Three-dimensional elasticity problems related to cracks: Exact solution by inversion transformation. <i>Theoretical and Applied Fracture Mechanics</i> , 1986, 5, 143-149.	2.1	1
84	On an effect of dislocations on the surface tension at the interface between two materials. <i>Doklady Physics</i> , 2001, 46, 853-855.	0.2	1
85	Sliding mode of multiple cracking of thin coatings. <i>Physical Mesomechanics</i> , 2007, 10, 111-112.	1.0	1
86	Evaluating intrinsic deformations in oxygen-containing precipitates. <i>Technical Physics Letters</i> , 2008, 34, 106-108.	0.2	1
87	Use of electronic speckle interferometry for recording nanodisplacements. <i>Mechanics of Solids</i> , 2008, 43, 662-670.	0.3	1
88	Thermodynamic theory of interfacial adhesion between materials containing point defects. , 2009, , .		1
89	Influence of plastic anisotropy on predictions of some engineering approaches in fracture mechanics. <i>Mechanics of Solids</i> , 2011, 46, 856-862.	0.3	1
90	Some Mechanical Models of Chemical-Mechanical Polishing Processes. <i>Key Engineering Materials</i> , 0, 528, 33-44.	0.4	1

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91	Reconstruction of the welding thermal cycle and determination of residual stresses from isotherm traces. <i>Mechanics of Solids</i> , 2013, 48, 86-91.	0.3	1
92	Fracture initiation in the contact region under shear. <i>Mechanics of Solids</i> , 2013, 48, 417-423.	0.3	1
93	Study of compression settlement of a three-layer rigid-plastic strip between parallel plates. <i>Mechanics of Solids</i> , 2014, 49, 703-712.	0.3	1
94	Equilibrium of Mixed-mode Interface Cracks under Cleavage of an Elastic Plane Caused by an Edge Dislocation. , 2014, 3, 1742-1747.		1
95	Taking into account van der Waals interaction in some problems of elasticity. <i>Mechanics of Solids</i> , 2014, 49, 67-72.	0.3	1
96	Some new applications of ESPI at the mechanical tests. <i>Meccanica</i> , 2015, 50, 389-399.	1.2	1
97	Effect of constitutive equations on qualitative behavior of solutions in the vicinity of bi-material interfaces at large plastic strains. <i>Continuum Mechanics and Thermodynamics</i> , 2016, 28, 1635-1643.	1.4	1
98	On the engineering treatment model (ETM). <i>International Journal of Fracture</i> , 1996, 78, R29-R35.	1.1	0
99	Asymptotic analysis of a delamination in a bi-layered plate. <i>Comptes Rendus De L'Acad�mie Des Sciences - Series IIB - Mechanics-Physics-Chemistry-Astronomy</i> , 1997, 324, 419-426.	0.1	0
100	Exact analytical solution to a rigid/plastic problem with hardening and damage evolution. <i>Comptes Rendus De L'Academie De Sciences - Serie Iib: Mecanique, Physique, Chimie, Astronomie</i> , 1999, 327, 193-199.	0.1	0
101	Fracture and manufacturing: selected papers from EUROMECH Colloquium 418. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2003, 26, 293-294.	1.7	0
102	Possible instability of a rectilinear crack path in an orthotropic plane at uniaxial normal tension. <i>Mechanics of Solids</i> , 2007, 42, 356-366.	0.3	0
103	Modeling of coating separation under thermomechanical loading in the beam approximation. <i>Mechanics of Solids</i> , 2007, 42, 723-736.	0.3	0
104	On an ice failure model with a large contact region. <i>Mechanics of Solids</i> , 2011, 46, 109-122.	0.3	0
105	Effect of the mean-stress dependence of yield conditions on residual stresses and strains. <i>Doklady Physics</i> , 2011, 56, 279-282.	0.2	0
106	The Mechanical Modeling of Oxygen-Containing Precipitates in Silicon Wafers on Different Stages of the Getter Formation Process. <i>Solid State Phenomena</i> , 2011, 178-179, 483-488.	0.3	0
107	Foreword: Max D Coon (1937�2010). <i>Cold Regions Science and Technology</i> , 2012, 76-77, 1-2.	1.6	0
108	Stress-strain state in an elastoplastic cylindrical tube with free ends. I. General solution. <i>Mechanics of Solids</i> , 2013, 48, 537-545.	0.3	0

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109	19th European Conference on Fracture (ECF19) Fracture Mechanics for Durability, Reliability and Safety. Engineering Failure Analysis, 2013, 29, 180-181.	1.8	0
110	Effect of the relationship between the elastic modulus and plastic strain on residual stresses and strains in a tube. Journal of Applied Mechanics and Technical Physics, 2014, 55, 74-80.	0.1	0
111	Macrofracture analysis and testing Special Issue 19th European Conference on Fracture (ECF19) selected papers. Engineering Fracture Mechanics, 2014, 129, 1-2.	2.0	0
112	Title is missing!. Journal of Mechanics of Materials and Structures, 2015, 10, 265-282.	0.4	0
113	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
114	Motion of a rigid bar in a rigid-viscoplastic medium: The influence of the model type on the solution behavior. Mechanics of Solids, 2015, 50, 389-396.	0.3	0
115	Failure analysis of structure components: Special Issue on 19th European Conference on Fracture (ECF19) selected papers. Engineering Failure Analysis, 2015, 47, 239-240.	1.8	0
116	Loading history and structure of fracture of material. Procedia Structural Integrity, 2016, 2, 2397-2404.	0.3	0
117	On the nonexistence of certain solutions for damage mechanics models. International Journal of Fracture, 2016, 200, 151-158.	1.1	0
118	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
119	Constitutive Equations for Severe Plastic Deformation Processes. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 73-79.	0.3	0
120	Kinetics of cracks nucleation on materials interface. Procedia Structural Integrity, 2017, 7, 222-228.	0.3	0
121	A Study on the Generation of a Fine-Grained Layer in Upsetting Between Flat and Conical Dies. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 183-190.	0.3	0