Mykola Lugovy

List of Publications by Year
in descending order

68 papers	803 citations	516215 16 h-index	552369 26 g-index
72 all docs	72 docs citations	72 times ranked	586 citing authors

#	Article	IF	Citations
1	Apparent fracture toughness of Si3N4-based laminates with residual compressive or tensile stresses in surface layers. Acta Materialia, 2005, 53, 289-296.	3.8	115
2	Crack arrest in Si3N4-based layered composites with residual stress. Composites Science and Technology, 2004, 64, 1947-1957.	3.8	53
3	Mechanical properties and residual stresses in ZrB2â€“SiC spark plasma sintered ceramic composites. Journal of the European Ceramic Society, 2016, 36, 1527-1537.	2.8	49
4	Robust design and manufacturing of ceramic laminates with controlled thermal residual stresses for enhanced toughness. Journal of Materials Science, 2005, 40, 5483-5490.	1.7	42
5	Thermal and mechanical properties of LaCoO3 and La0.8Ca0.2CoO3 perovskites. Journal of Power Sources, 2008, 182, 230-239.	4.0	40
6	Mechanical properties of ZrB₂â€“SiC ceramic composites: room temperature instantaneous behaviour. Advances in Applied Ceramics, 2013, 112, 9-16.	0.6	30
7	Solid solution strengthening in multicomponent fcc and bcc alloys: Analytical approach. Progress in Natural Science: Materials International, 2021, 31, 95-104.	1.8	29
8	Macrostructural engineering of ceramic-matrix layered composites. Composites Science and Technology, 1999, 59, 1429-1437.	3.8	28
9	Crack bifurcation features in laminar specimens with fixed total thickness. Composites Science and Technology, 2002, 62, 819-830.	3.8	27
10	Room-temperature creep of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LaCoO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml: perovskites: Equilibrium strain under compression. Physical Review B, 2008, 78, .	1.3	25
11	Design of Si3N4-based ceramic laminates by the residual stresses. Journal of Materials Science, 2005, 40, 5443-5450.	1.7	23
12	Temperature dependence of elastic properties of ZrB2â€“SiC composites. Ceramics International, 2016, 42, 2439-2445.	2.3	23
13	Spark Plasma Sintered B4Câ€"Structural, Thermal, Electrical and Mechanical Properties. Materials, 2020, 13, 1612.	1.3	22
14	Si3N4â€“TiN based micro-laminates with rising R-curve behaviour. Composites Part B: Engineering, 2006, 37, 459-465.	5.9	19
15	Inelastic deformation behavior of La0.6Sr0.4FeO3 perovskite. Journal of Applied Physics, 2006, 100, 026102.	1.1	18
16	Hexagonal OsB2: Sintering, microstructure and mechanical properties. Journal of Alloys and Compounds, 2015, 634, 168-178.	2.8	18
17	Microstructural engineering of ceramic-matrix layered composites: Effect of grain-size dispersion on single-phase ceramic strength. Composites Science and Technology, 1999, 59, 283-289.	3.8	17
18	Mechanical behavior and failure mechanisms of boron carbide based three-layered laminates with weak interfaces. Ceramics International, 2011, 37, 2255-2261.	2.3	12

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19	Residual stress relaxation processes in thermal barrier coatings under tension at high temperature. Surface and Coatings Technology, 2004, 184, 331-337.	2.2	11
20	SiC/SiCwoven fabric laminates: Design, manufacturing, mechanical properties. Composites Part B: Engineering, 2006, 37, 524-529.	5.9	11
21	<i>In-situ</i> neutron diffraction of LaCoO3 perovskite under uniaxial compression. II. Elastic properties. Journal of Applied Physics, 2014, 116, .	1.1	11
22	Statistical failure model of materials with micro-inhomogeneity. Theoretical and Applied Fracture Mechanics, 1997, 26, 35-40.	2.1	10
23	Room temperature fatigue of ZrB2â€“SiC ceramic composites. Ceramics International, 2013, 39, 9187-9194.	2.3	10
24	<i>In-situ</i> neutron diffraction of LaCoO3 perovskite under uniaxial compression. I. Crystal structure analysis and texture development. Journal of Applied Physics, 2014, 116, .	1.1	10
25	Non-congruence of high-temperature mechanical and structural behaviors of LaCoO3 based perovskites. Journal of the European Ceramic Society, 2017, 37, 1563-1576.	2.8	10
26	On thermal and vibrational properties of LaGaO3 single crystals. Acta Materialia, 2009, 57, 2984-2992.	3.8	9
27	Powder Metallurgy Production of Tiâ€“5.4 wt.% Si Alloy. I. Simulating the Formation of Powder Particles by Centrifugal Atomization. Powder Metallurgy and Metal Ceramics, 2013, 52, 409-416.	0.4	9
28	Structural evolution of Laâ€“Crâ€“O thin films: Part I. Microstructure and phase development. Thin Solid Films, 2006, 515, 1741-1747.	0.8	8
29	Time Dependent Mechanical Properties of ZrB₂ -SiC Ceramic Composites: Room Temperature Fatigue Parameters. Science of Advanced Materials, 2014, 6, 844-852.	0.1	8
30	Residual Stress and Biaxial Strength in Sc₂O₃â€“CeO₂â€“ZrO₂/Y₂O₃â€“ZrO₂ Layered Electrolytes. Fuel Cells, 2013, 13, 1068-1075.	1.5	7
31	Local stochastic analysis of microcracking and non-elastic behavior of ceramics. Theoretical and Applied Fracture Mechanics, 2001, 36, 115-123.	2.1	6
32	Nanoindentation of LaCrO3 thin films. Journal of Materials Science, 2006, 41, 3105-3111.	1.7	6
33	Effects of rolling and hot pressing on mechanical properties of boron carbide-based ceramics. Journal of Materials Science, 2008, 43, 5942-5947.	1.7	6
34	Microcracking in electron beam deposited scandia-stabilised zirconia electrolyte. Journal of Power Sources, 2009, 194, 950-960.	4.0	6
35	Room temperature R-curve and stable crack growth behaviour of ZrB₂â€“SiC ceramic composites. Advances in Applied Ceramics, 2019, 118, 169-182.	0.6	6
36	Structural evolution of Laâ€“Crâ€“O thin film: Part II. Elasto-plastic properties by nanoindentation. Thin Solid Films, 2007, 515, 2847-2853.	0.8	5

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37	Comparative study of static and cyclic fatigue of ZrB2-SiC ceramic composites. Journal of the European Ceramic Society, 2018, 38, 1128-1135.	2.8	5
38	Elastic modulus of highly porous nickel-based materials. Powder Metallurgy and Metal Ceramics, 1997, 36, 203-206.	0.4	4
39	A further insight into spherical indentation: Ring crack formation in a brittle La0.8Sr0.2Ga0.8Mg0.2O3 perovskite. Acta Materialia, 2011, 59, 4425-4436.	3.8	4
40	Time and frequency dependent mechanical properties of LaCoO3-based perovskites: Internal friction and negative creep. Journal of Applied Physics, 2018, 124, .	1.1	4
41	High temperature stiffening of ferroelastic LaCoO3. Journal of the European Ceramic Society, 2019, 39, 3338-3343.	2.8	4
42	A method of determining the mechanical properties of a two-layer composite consisting of a steel matrix and a plasma spray coating based on amorphizing powders. Powder Metallurgy and Metal Ceramics, 1999, 38, 224-227.	0.4	3
43	Influence of random pore-type mesodefects on the strength of brittle materials. Powder Metallurgy and Metal Ceramics, 1999, 38, 198-201.	0.4	3
44	Cyclic fatigue effect in particulate ceramic composites. Journal of the European Ceramic Society, 2016, 36, 3257-3266.	2.8	3
45	Time and frequency dependent mechanical properties of LaCoO3-based perovskites: Neutron diffraction and domain mobility. Journal of Applied Physics, 2018, 124, .	1.1	3
46	Effect of porosity on the fracture stress of powder materials in the ductile fracture mechanism. Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya Metallurgiya), 1992, 31, 451-455.	0.1	2
47	Fracture resistance and strength of two-phase WCâ€"Ni alloy. Theoretical and Applied Fracture Mechanics, 1999, 31, 85-90.	2.1	2
48	Structural sensitivity of the ultimate mechanical properties of biporous materials prepared using a pore-former. Powder Metallurgy and Metal Ceramics, 1999, 38, 403-407.	0.4	2
49	Principles of the design of highly porous layered composites working in the bending mode. Powder Metallurgy and Metal Ceramics, 2000, 39, 171-177.	0.4	2
50	Fracture Resistance of Residually-Stressed Ceramic Laminated Structures. Strength of Materials, 2004, 36, 291-303.	0.2	2
51	Residual stress distribution in solid oxide fuel cells: anode-electrolyte and anode-electrolyte-cathode systems. SN Applied Sciences, 2020, 2, 1.	1.5	2
52	Effect of Loading and Heating History on Deformation of LaCoO3. Materials, 2021, 14, 3543.	1.3	2
53	Effects of high-speed electrothermal treatment on the mechanical characteristics of VK and VN hard alloys. Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya) Tj ETQq1 1 0.784314 rg BT /Overlock 10 Tf 5	0.1	1
54	Effect of the pore space structure in a biporous material on the elastic modulus. Phenomenological analysis. Powder Metallurgy and Metal Ceramics, 1995, 33, 628-632.	0.4	1

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55	Microplasticity behavior of porous nickel. Powder Metallurgy and Metal Ceramics, 1998, 37, 529-534.	0.4	1
56	Statistical Evaluation of Microcracking of Inelastic Ceramics. Strength of Materials, 2002, 34, 349-358.	0.2	1
57	Bifurcation of Cracks in Laminated Ceramic Composites with Rigid Interlaminar Bonds. Strength of Materials, 2003, 35, 248-259.	0.2	1
58	Boron Carbide-Silicon Carbide Laminated Ceramics for Ballistic Protection. , 2003, , 319.		1
59	Anisotropy of destruction viscosity of hot-pressed silicon nitride. Refractories and Industrial Ceramics, 2006, 47, 228-233.	0.2	1
60	Design of tough ceramic laminates by residual stresses control. , 2006, , 178-215.		1
61	Dual ferroelasticity of lanthanum chromium-based multicomponent solid solution perovskite. Scripta Materialia, 2009, 60, 783-786.	2.6	1
62	Two-layered Cantilever Sensor: A Simplified Mechanical Analysis of Dimensional Limitations. Mechanics of Advanced Materials and Structures, 2010, 17, 280-286.	1.5	1
63	Scattered and linked microcracks in solid oxide fuel cell electrolyte. Journal of Power Sources, 2020, 450, 227701.	4.0	1
64	Boron Carbide/Boron Carbide-Carbon Nanofibers Laminates with Weak Interfaces. NATO Science for Peace and Security Series B: Physics and Biophysics, 2010, , 1-11.	0.2	1
65	Analysis of Layered Composites With Crack Deflection Controlled by Layer Thickness. , 2001, , 273-280.		1
66	Development of Failure Tolerant Multi-Layer Silicon Nitride Ceramics: Review from Macro to Micro Layered Structures. Key Engineering Materials, 2007, 333, 117-126.	0.4	0
67	ZrB2, HfB2, OsB2 and IrB2 Boride Ceramics: Processing, Structure, and Properties. , 2021, , 200-215.		0
68	All Ceramic Cantilever Sensors with Boron Carbide Layer: Advantages and Dimensional Limitations. NATO Science for Peace and Security Series B: Physics and Biophysics, 2010, , 13-27.	0.2	0