

Tatiana A Prikhna

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3171554/publications.pdf>

Version: 2024-02-01

138
papers

1,241
citations

394421

19
h-index

580821

25
g-index

142
all docs

142
docs citations

142
times ranked

605
citing authors

#	ARTICLE	IF	CITATIONS
1	High-pressure synthesis of MgB ₂ with addition of Ti. Physica C: Superconductivity and Its Applications, 2004, 402, 223-233.	1.2	46
2	Batch-processed melt-textured YBCO with improved quality for motor and bearing applications. Superconductor Science and Technology, 2004, 17, 1185-1188.	3.5	41
3	Nanostructural inhomogeneities acting as pinning centers in bulk MgB ₂ with low and enhanced grain connectivity. Superconductor Science and Technology, 2014, 27, 044013.	3.5	38
4	Temperature dependence of the trapped magnetic field in MgB ₂ bulk superconductors. Applied Physics Letters, 2003, 83, 4360-4362.	3.3	37
5	The inclusions of Mg ¹² B (MgB ₁₂) as potential pinning centres in high-pressure ¹² high-temperature-synthesized or sintered magnesium diboride. Superconductor Science and Technology, 2007, 20, S257-S263.	3.5	35
6	High-pressure synthesis of a bulk superconductive MgB ₂ -based material. Physica C: Superconductivity and Its Applications, 2003, 386, 565-568.	1.2	30
7	Research of the treatment of depleted nickel ¹² plating electrolytes by the ferritization method. Eastern-European Journal of Enterprise Technologies, 2018, 3, 52-60.	0.5	28
8	Chemical interactions in Ti doped MgB ₂ superconducting bulk samples and wires. Superconductor Science and Technology, 2005, 18, 1190-1196.	3.5	27
9	Synthesis Pressure ¹² Temperature Effect on Pinning in MgB ₂ -Based Superconductors. Journal of Superconductivity and Novel Magnetism, 2013, 26, 1569-1576.	1.8	25
10	Superconducting joining of melt-textured Y ¹² Ba ¹² Cu ¹² O bulk material. Physica C: Superconductivity and Its Applications, 2001, 354, 333-337.	1.2	24
11	Ti and Zr doped MgB ₂ bulk superconductors. Journal of Physics: Conference Series, 2006, 43, 500-504.	0.4	24
12	Mechanical properties of materials based on MAX phases of the Ti-Al-C system. Journal of Superhard Materials, 2012, 34, 102-109.	1.2	23
13	Characterization of B ₄ C-SiC ceramic composites prepared by ultra-high pressure sintering. Journal of the European Ceramic Society, 2021, 41, 4755-4760.	5.7	23
14	Flux mapping at 77K and local measurement at lower temperature of thin-wall YBaCuO single-domain samples oxygenated under high pressure. Physica C: Superconductivity and Its Applications, 2009, 469, 1200-1206.	1.2	22
15	Higher borides and oxygen-enriched Mg ¹² B ¹² O inclusions as possible pinning centers in nanostructural magnesium diboride and the influence of additives on their formation. Physica C: Superconductivity and Its Applications, 2010, 470, 935-938.	1.2	22
16	Structure and thermal expansion of (Cr _x V _{1-x}) _n +1AlC _n phases measured by X-ray diffraction. Journal of the European Ceramic Society, 2017, 37, 15-21.	5.7	22
17	The effect of high-pressure synthesis on flux pinning in MgB ₂ -based superconductors. Physica C: Superconductivity and Its Applications, 2012, 479, 111-114.	1.2	21
18	Structural variations in high-temperature superconductive YBa ₂ Cu ₃ O _{7-x} ceramic samples under high pressure-high temperature conditions. Journal of Materials Science, 1995, 30, 3662-3667.	3.7	20

#	ARTICLE	IF	CITATIONS
19	Explosively Consolidated Powder-In-Tube MgB ₂ Superconductor Aided by Post-Thermal Treatment. IEEE Transactions on Applied Superconductivity, 2009, 19, 20-27.	1.7	19
20	Universal Character of Tunnel Conductivity of Metalinsulator-Metal Heterostructures with Nanosized Oxide Barriers. Physics Procedia, 2012, 36, 94-99.	1.2	19
21	Effect of the Additive of Y ₂ O ₃ on the Structure Formation and Properties of Composite Materials Based on AlN-SiC. Journal of Superhard Materials, 2018, 40, 8-15.	1.2	19
22	Studies of the oxidation stability, mechanical characteristics of materials based on max phases of the Ti-Al-(C, N) systems, and of the possibility of their use as tool bonds and materials for polishing. Journal of Superhard Materials, 2014, 36, 9-17.	1.2	18
23	Polishing of optoelectronic components made of monocrystalline silicon carbide. Journal of Superhard Materials, 2015, 37, 48-56.	1.2	18
24	Properties of high-temperature solution-grown aluminium borides. Journal of the Less Common Metals, 1986, 117, 349-353.	0.8	17
25	High-pressure synthesis of MgB ₂ with and without tantalum additions. Physica C: Superconductivity and Its Applications, 2002, 372-376, 1543-1545.	1.2	17
26	Structure and properties of melt-textured YBa ₂ Cu ₃ O _{7-δ} , high pressure-high temperature treated and oxygenated under evaluated oxygen pressure. Superconductor Science and Technology, 2004, 17, S515-S519.	3.5	17
27	Oxidation Resistance of Materials Based on Ti ₃ AlC ₂ Nanolaminates at 600°C in Air. Nanoscale Research Letters, 2016, 11, 358.	5.7	17
28	Graphene-layer-coated boron carbide nanosheets with efficient electromagnetic wave absorption. Applied Surface Science, 2021, 560, 150027.	6.1	17
29	Formation of nanostructure in magnesium diboride based materials with high superconducting characteristics. Low Temperature Physics, 2016, 42, 380-394.	0.6	16
30	Charge Transport in Hybrid Tunnel Superconductor-Quantum Dot-Superconductor Junctions. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.7	16
31	Nanostructural Superconducting Materials for Fault Current Limiters and Cryogenic Electrical Machines. Acta Physica Polonica A, 2010, 117, 7-14.	0.5	16
32	Formation of Higher Borides During High-Pressure Synthesis and Sintering of Magnesium Diboride and Their Positive Effect on Pinning and Critical Current Density. IEEE Transactions on Applied Superconductivity, 2009, 19, 2780-2783.	1.7	15
33	Lightweight ceramics based on aluminum dodecaboride, boron carbide and self-bonded silicon carbide. Ceramics International, 2019, 45, 9580-9588.	4.8	15
34	Effect of higher borides and inhomogeneity of oxygen distribution on critical current density of undoped and doped magnesium diboride. Journal of Physics: Conference Series, 2010, 234, 012031.	0.4	14
35	Presence of Oxygen in Ti-Al-C MAX Phases-Based Materials and their Stability in Oxidizing Environment at Elevated Temperatures. Acta Physica Polonica A, 2018, 133, 789-793.	0.5	13
36	An experimental investigation of a reluctance electrical drive with bulk superconducting elements in the rotor at temperature below 20 K. Journal of Physics: Conference Series, 2006, 43, 792-795.	0.4	12

#	ARTICLE	IF	CITATIONS
37	Sintered nanocomposites ZrO ₂ -WC obtained with field assisted hot pressing. Composite Structures, 2021, 259, 113443.	5.8	12
38	Title is missing!. Journal of Materials Science, 2000, 35, 1607-1613.	3.7	11
39	Superconducting joining of melt-textured YBCO. Physica C: Superconductivity and Its Applications, 2002, 372-376, 1528-1530.	1.2	11
40	Thermal Stability and Mechanical Characteristics of Densified Ti ₃ AlC ₂ -Based Material. Solid State Phenomena, 0, 230, 140-143.	0.3	11
41	Pinning in high performance MgB ₂ thin films and bulks: Role of Mg-B-O nano-scale inhomogeneities. Physica C: Superconductivity and Its Applications, 2017, 533, 36-39.	1.2	11
42	Charge and heat transfer of the Ti ₃ AlC ₂ MAX phase. Journal of Materials Science: Materials in Electronics, 2018, 29, 11478-11481.	2.2	11
43	Structure and Properties of Bulk MgB ₂ . Asian Journal of Social Science Studies, 2016, , 131-157.	0.1	10
44	Structure and Properties of MgB ₂ Bulks, Thin Films, and Wires. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	10
45	Structure and Properties of WC-Co Composites with Different Cr ₂ Concentrations, Sintered by Vacuum Hot Pressing, for Drill Bits. Journal of Superhard Materials, 2021, 43, 344-354.	1.2	10
46	Joining of melt-textured YBCO using Tm ₁₂₃ powder as a solder. Physica C: Superconductivity and Its Applications, 2003, 386, 221-224.	1.2	9
47	Oxygenation of the traditional and thin-walled MT-YBCO in flowing oxygen and under high evaluated oxygen pressure. Physica C: Superconductivity and Its Applications, 2007, 460-462, 392-394.	1.2	9
48	Peculiarities of high-pressure and hot-pressing manufacture of MgB ₂ -based blocks with high critical currents for electrical machines. Journal of Physics: Conference Series, 2008, 97, 012022.	0.4	9
49	High-pressure oxygenation of thin-wall YBCO single-domain samples. Journal of Physics: Conference Series, 2008, 97, 012043.	0.4	9
50	Spark Plasma Synthesis and Sintering of Superconducting MgB ₂ -Based Materials. Materials Science Forum, 0, 721, 3-8.	0.3	9
51	Temperature-pressure induced nano-structural inhomogenities for vortex pinning in bulk MgB ₂ of different connectivity. Physica C: Superconductivity and Its Applications, 2014, 503, 109-112.	1.2	9
52	Structure and properties of superhard materials based on aluminum dodecaboride α -AlB ₁₂ . Journal of Superhard Materials, 2017, 39, 299-307.	1.2	9
53	Modern superconductive materials for electrical machines and devices working on the principle of levitation. Low Temperature Physics, 2006, 32, 505-517.	0.6	8
54	Critical current density investigations of explosively compacted and extruded powder-in-tube MgB ₂ superconductors. Superconductor Science and Technology, 2010, 23, 095011.	3.5	8

#	ARTICLE	IF	CITATIONS
55	Synthesis of ternary compounds of the Ti-Al-C system at high pressures and temperatures. Journal of Superhard Materials, 2011, 33, 307-314.	1.2	8
56	Effects of High Pressure on the Physical Properties of MgB ₂ . Journal of Superconductivity and Novel Magnetism, 2011, 24, 137-150.	1.8	8
57	AC losses in high pressure synthesized MgB ₂ bulk rings measured by a transformer method. Superconductor Science and Technology, 2013, 26, 035015.	3.5	8
58	Study of the Thermal Stability and Mechanical Characteristics of MAX Phases of Ti-Al-C(N) System and their Solid Solutions. Advances in Science and Technology, 0, , .	0.2	8
59	The effect of size of the SiC inclusions in the AlN-SiC composite structure on its electrophysical properties. Journal of Superhard Materials, 2016, 38, 241-250.	1.2	8
60	Properties of AlN-TiN composite ceramics. Advances in Applied Ceramics, 2000, 99, 278-279.	0.4	7
61	Formation of magnesium diboride-based materials with high critical currents and mechanical characteristics by highpressure synthesis. Journal of Physics: Conference Series, 2006, 43, 496-499.	0.4	7
62	Improved magnetic trapped field in thin-wall YBCO single-domain samples by high-pressure oxygen annealing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 151, 53-59.	3.5	7
63	Pinning in MgB ₂ - and YBaCuO-Based Superconductors: Effect of Manufacturing Pressure and Temperature. IEEE Transactions on Applied Superconductivity, 2013, 23, 8001605-8001605.	1.7	7
64	Structure and Functional Properties of Bulk MgB ₂ Superconductors Synthesized and Sintered under Pressure. Materials Science Forum, 0, 792, 21-26.	0.3	7
65	Effect of Nanostructural Inhomogeneities on the Superconducting Characteristics of MgB ₂ With Enhanced Grain Connectivity. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	7
66	Aluminium borides and carboborides. AIP Conference Proceedings, 1991, , .	0.4	6
67	Simple technique for quality estimation of superconducting joints in bulk melt-processed high temperature superconductors. Superconductor Science and Technology, 2001, 14, L41-L43.	3.5	6
68	Formation of superconducting junctions in MT-YBCO. Superconductor Science and Technology, 2005, 18, S153-S157.	3.5	6
69	High-Pressure High-Temperature Synthesis of Nanostructural Magnesium Diboride for Electromotors and Devices Working at Liquid Hydrogen Temperatures. Advances in Science and Technology, 2006, 47, 25.	0.2	6
70	High-pressure high-temperature synthesis of magnesium diboride with different additions. Physica C: Superconductivity and Its Applications, 2007, 460-462, 595-597.	1.2	6
71	High-Pressure Synthesized Nanostructural MgB ₂ Materials With High Performance of Superconductivity, Suitable for Fault Current Limitation and Other Applications. IEEE Transactions on Applied Superconductivity, 2011, 21, 2694-2697.	1.7	6
72	Iron oxide nanopowder synthesized by electroerosion dispersion (EED) Properties and potential for microwave applications. Current Applied Physics, 2018, 18, 1410-1414.	2.4	6

#	ARTICLE	IF	CITATIONS
73	High-Pressure Synthesis of MgB ₂ -Based Material with High Critical Currents. , 2005, , 81-90.		6
74	High-pressure-induced high-temperature-induced variations in Y123-structural type superconductors. Physica C: Superconductivity and Its Applications, 2001, 354, 415-419.	1.2	5
75	High-pressure synthesized nanostructural magnesium diboride-based materials for superconductive electromotors, generators and pumps. Journal of Materials Processing Technology, 2007, 181, 71-75.	6.3	5
76	Improvement of superconductive and mechanical properties of bulk and thin-wall MT-YBCO ceramics in oxygenation. Journal of Superhard Materials, 2008, 30, 215-232.	1.2	5
77	Phase diagram of the Mg-B system at 2 GPa and peculiarities of high-pressure manufacture of MgB ₂ -based blocks with high critical currents. High Pressure Research, 2009, 29, 87-92.	1.2	5
78	Influence of Oxygen and Boron Distribution on the Superconducting Characteristics of Nanostructural Mg-B-O Ceramics. Solid State Phenomena, 2013, 200, 137-143.	0.3	5
79	Influence of Nanostructural Inhomogeneities on Superconducting Characteristics of MgB ₂ . Journal of Superconductivity and Novel Magnetism, 2015, 28, 525-530.	1.8	5
80	Electroerosion dispersion-prepared nano- and submicrometre-sized aluminium and alumina powders as power-accumulating substances. Nanotechnology Perceptions, 2008, 4, 179-187.	0.2	5
81	High pressure-high temperature effect on the HTSC ceramics structure and properties. Journal of Electronic Materials, 1995, 24, 1971-1975.	2.2	4
82	High-pressure-high-temperature effect on the structure of YBaCuO- and NdBaCuO-based superconductive ceramics. Superconductor Science and Technology, 1998, 11, 1123-1128.	3.5	4
83	High pressure synthesis and sintering of MgB ₂ . IEEE Transactions on Applied Superconductivity, 2003, 13, 3506-3509.	1.7	4
84	Superconductivity in Multi-Phase Mg-B-O Compounds. Physics Procedia, 2012, 36, 475-478.	1.2	4
85	Structure and properties of hot-pressed materials based on AlB ₂ C ₂ . Journal of Superhard Materials, 2017, 39, 216-219.	1.2	4
86	Structure and Properties of MgB ₂ : Effect of Ti-O and TiC Additions. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	4
87	Synthesis Peculiarities of CNT Forest Under Conditions of Adding a Regulated Plasma Component of the Working Gas. Journal of Superhard Materials, 2018, 40, 267-273.	1.2	4
88	Thermal and crack resistance of ceramics based on the MAX phase Ti ₃ AlC ₂ . Functional Materials, 2018, 25, 708-712.	0.1	4
89	Electroerosion dispersion, sorption and coagulation for complex water purification: Electroerosion waste recycling and manufacturing of metal, oxide and alloy nanopowders. Nanotechnology Perceptions, 2019, 15, 48-57.	0.2	4
90	Superconducting joining of MT-YBCO. Physica C: Superconductivity and Its Applications, 2003, 392-396, 432-436.	1.2	3

#	ARTICLE	IF	CITATIONS
91	Dislocation configurations in twin-free melt-textured YBa ₂ Cu ₃ O ₇ processed at high pressure and temperature. Philosophical Magazine Letters, 2005, 85, 405-414.	1.2	3
92	Peculiarities of High-Pressure Oxygenation of MT-YBCO. IEEE Transactions on Applied Superconductivity, 2007, 17, 2992-2995.	1.7	3
93	Oxygenation of bulk and thin-walled MT-YBCO under controllable oxygen pressure. Journal of Physics: Conference Series, 2008, 97, 012023.	0.4	3
94	MgB ₂ Wires and Bulks With High Superconducting Performance. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	3
95	Correlations between the structure and superconducting properties of MT-YBaCuO. Journal of Physics: Conference Series, 2020, 1559, 012048.	0.4	3
96	Critical Current Density, Pinning and Nanostructure of MT-YBCO and MgB ₂ -based Materials. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	3
97	A novel route to superhard nanocrystalline cubic boron nitride: Emulsion detonation and high-pressure high-temperature transformation-assisted consolidation. Journal of the European Ceramic Society, 2021, 41, 5505-5511.	5.7	3
98	The effect of strain on structural transformations in materials of the AlN-TiN systems when loaded in diamond anvils. Journal of Superhard Materials, 2009, 31, 281-283.	1.2	2
99	High Pressure Synthesized Magnesium Diboride- and Dodecaboride-Based Superconductors: Structure and Properties. Materials Science Forum, 0, 670, 21-27.	0.3	2
100	Processing and oxygenation of YBaCuO melted textured ceramics at high and enhanced pressures and temperatures. Journal of Superhard Materials, 2012, 34, 283-298.	1.2	2
101	Formation regularities of structures of AlN-SiC-based ceramic materials. Journal of Superhard Materials, 2015, 37, 293-299.	1.2	2
102	Influence of Technological Media on the Mechanical and Physical Properties of Materials for Fuel Cells. Materials Science, 2015, 51, 149-157.	0.9	2
103	MgB ₂ -based superconductors for fault current limiters. IOP Conference Series: Materials Science and Engineering, 2017, 171, 012144.	0.6	2
104	Structure and Properties of Magnesium Diboride and the Effect of Additions. Materials Science Forum, 0, 915, 65-70.	0.3	2
105	Structure and properties of MgB ₂ bulks: <i>ab-initio</i> simulations compared to experiment. IOP Conference Series: Materials Science and Engineering, 0, 756, 012020.	0.6	2
106	Morphology characteristics and mechanical properties of hot-pressed micron/sub-micron boron carbide ceramics. Materials Today Communications, 2021, 29, 102751.	1.9	2
107	Structure and properties of superstoichiometric YBa ₂ Cu ₃ O _{7+x} compounds. Physica C: Superconductivity and Its Applications, 1989, 162-164, 941-942.	1.2	1
108	Influence of high pressures and temperatures on the behaviour of Bismuth-based superconductors. Journal of the European Ceramic Society, 1994, 14, 221-225.	5.7	1

#	ARTICLE	IF	CITATIONS
109	Study of the effect of the injection molding parameters on physico-mechanical properties of aluminum nitride-based ceramics. Journal of Superhard Materials, 2008, 30, 255-260.	1.2	1
110	The Effect of Oxygen Distribution Inhomogeneity and Presence of Higher Borides on the Critical Current Density Improvement of Nanostructural MgB ₂ . Advances in Science and Technology, 2010, 75, 161-166.	0.2	1
111	Pinning and trapped field in MgB ₂ - and MT-YBaCuO bulk superconductors manufactured under pressure. Journal of Physics: Conference Series, 2016, 695, 012001.	0.4	1
112	Structure and superconducting characteristics of magnesium diboride, substitution of boron atoms by oxygen and carbon. IOP Conference Series: Materials Science and Engineering, 2017, 279, 012023.	0.6	1
113	Improved design josephson junctions with hybrid nanostructured barriers. , 2017, , .		1
114	Preparation and Properties of MgB ₂ Thin Films. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-7.	1.7	1
115	Manufacturing, Structure, Properties of MgB ₂ -Based Materials. Journal of Superconductivity and Novel Magnetism, 2019, 32, 3115-3120.	1.8	1
116	Correlations Between Superconducting Characteristics and Structure of MgB ₂ -Based Materials, <i>ab-initio</i> Modeling. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.7	1
117	Creep and Viscoelasticity of the Ti ₃ AlC ₂ MAX Phase at Room Temperature. Journal of Superhard Materials, 2020, 42, 294-301.	1.2	1
118	Influence of Oxygen Concentration and Distribution on Microstructure and Superconducting Characteristics of MgB ₂ -Based Materials and Melt-Textured YBCO. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-6.	1.7	1
119	Phase Formation and Physicomechanical Properties of WC-Co-CrB ₂ Composites Sintered by Vacuum Hot Pressing for Drill Tools. Journal of Superhard Materials, 2022, 44, 1-11.	1.2	1
120	Parameters of the Unit Cell of the Ti ₃ AlC ₂ MAX-Phase with the Hydrogen. Physica Status Solidi (B): Basic Research, 0, , .	1.5	1
121	High pressure/high temperature treatment of melt textured YBCO high temperature superconductors. European Physical Journal D, 1996, 46, 1405-1406.	0.4	0
122	Thermobaric effect on melt-textured MBa ₂ Cu ₃ O _{7-x} (M=Y, Nd). Physica B: Condensed Matter, 2000, 284-288, 2097-2098.	2.7	0
123	HIGH-PRESSURE OXYGENATION OF MT-YBCO: THE WAY TO REDUCE THE OXYGENATION TIME, TO PREVENT MACROCRACKING, AND TO OBTAIN MATERIALS WITH HIGH CRITICAL CURRENTS.. AIP Conference Proceedings, 2008, , .	0.4	0
124	Measuring AC Losses and Critical Current of High Pressure Synthesized MgB ₂ Bulk Rings by the Transformer Method. Materials Science Forum, 2012, 721, 27-32.	0.3	0
125	Influence of oxygen and boron distribution on superconducting characteristics of nanostructural Mg-B-O ceramics. , 2012, , .		0
126	Mechanical characteristics and high temperature stability of oxidized Ti ₃ AlC ₂ nanolaminat. , 2014, , .		0

