

# Makariy A Tanatar

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8200646/publications.pdf>

Version: 2024-02-01

163  
papers

7,261  
citations

41344

49  
h-index

62596

80  
g-index

163  
all docs

163  
docs citations

163  
times ranked

4187  
citing authors

#	ARTICLE	IF	CITATIONS
1	Field-Induced Quantum Critical Point in CeCoIn <sub>5</sub> . Physical Review Letters, 2003, 91, 246405.	7.8	314
2	A Sharp Peak of the Zero-Temperature Penetration Depth at Optimal Composition in BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Science, 2012, 336, 1554-1557.	12.6	273
3	Direct mechanical determination of the magnetic penetration depth of the iron pnictide superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review B, 2010, 81, 020501.	3.2	255
4	Vortex phase diagram of the iron pnictide superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review B, 2008, 78, 020501.	3.2	237
5	Heat Conduction in the Vortex State of NbSe <sub>2</sub> : Evidence for Multiband Superconductivity. Physical Review Letters, 2003, 90, 117003.	7.8	210
6	Anisotropy of the iron pnictide superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review B, 2009, 79, 020501.	3.2	168
7	Evidence of a d-wave superconducting state in the iron arsenide superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review Letters, 2012, 109, 027001.	7.8	155
8	Unconventional London Penetration Depth in Single-Crystal FeAs <sub>1-x</sub> P <sub>x</sub> . Physical Review Letters, 2009, 102, 127004.	3.2	150
9	Nodes in the gap structure of the iron arsenide superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review B, 2010, 82, 020501.	3.2	143
10	A ferromagnetic insulating substrate for the epitaxial growth of topological insulators. Journal of Applied Physics, 2013, 114, 114907.	2.5	138
11	Doping Dependence of Heat Transport in the Iron-Arsenide Superconductor BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review Letters, 2010, 104, 067002.	3.2	137
12	Magnetic field-temperature phase diagram of the quasi-two-dimensional organic superconductor (BETS) <sub>2</sub> GaCl <sub>4</sub> studied via thermal conductivity. Physical Review B, 2002, 66, 020501.	3.2	131
13	Direct imaging of the structural domains in the iron pnictides BaFe <sub>2</sub> (As <sub>1-x</sub> P <sub>x</sub> ) <sub>2</sub> . Physical Review Letters, 2010, 104, 067002.	3.2	131

#	ARTICLE	IF	CITATIONS
19	Quasiparticle heat transport in single-crystalline $\text{BaFeAsO}_{1-x}$ . Physical Review B, 2009, 80, .	3.2	104
20	Sign-reversal of the in-plane resistivity anisotropy in hole-doped iron pnictides. Nature Communications, 2013, 4, 1914.	12.8	100
21	Anisotropy of Magnetothermal Conductivity in $\text{Sr}_2\text{RuO}_4$ . Physical Review Letters, 2001, 86, 2649-2652.	7.8	98
22	Unpaired Electrons in the Heavy-Fermion Superconductor $\text{CeCoIn}_5$ . Physical Review Letters, 2005, 95, 067002.	7.8	94
23	Origin of the Resistivity Anisotropy in the Nematic Phase of FeSe. Physical Review Letters, 2016, 117, 127001.	7.8	93
24	Nonexponential London Penetration Depth of FeAs-Based Superconducting $\text{FeAsO}_{0.9}$ . Physical Review B, 2009, 79, 040501.	3.2	92
25	London penetration depth in single crystals of $\text{BaFeAsO}_{1-x}$ . Physical Review B, 2009, 79, 040501.	3.2	92
26	Resistivity anisotropy of $\text{BaFeAsO}_{1-x}$ . Physical Review B, 2009, 79, 040501.	3.2	87
27	Nonvanishing Energy Scales at the Quantum Critical Point of $\text{CeCoIn}_5$ . Physical Review Letters, 2006, 97, 106606.	7.8	86
28	Universal Heat Transport in $\text{Sr}_2\text{RuO}_4$ . Physical Review Letters, 2002, 88, 227004.	7.8	85
29	Nodeless two-gap superconducting state in single crystals of the stoichiometric iron pnictide $\text{LiFeAs}$ . Physical Review B, 2011, 83, .	3.2	82
30	Using controlled disorder to probe the interplay between charge order and superconductivity in $\text{NbSe}_2$ . Nature Communications, 2018, 9, 2796.	12.8	81
31	Doping evolution of the absolute value of the London penetration depth and superfluid density in single crystals of $\text{BaFeAsO}_{1-x}$ .		

#	ARTICLE	IF	CITATIONS
37	Pseudogap and its critical point in the heavily doped $Ba_{1-x}As_x$ Physical Review B, 2010, 82, .	3.2	66
38	Infrared Measurement of the Pseudogap of P-Doped and Co-Doped High-Temperature $BaFe_2As_2$ Physical Review Letters, 2012, 109, 027006.	7.8	64
39	Magnetic-field-tuned quantum criticality of the heavy-fermion system YbPtBi. Physical Review B, 2013, 87, .	3.2	59
40	Superconducting and normal-state properties of $Ba_{1-x}Pd_xAs_2$ Physical Review B, 2010, 81, .	3.2	59
41	London penetration depth and strong pair breaking in iron-based superconductors. Physical Review B, 2010, 81, .	3.2	58
42	Nonmetal to metal crossover and ethylene ordering in the organic superconductor $(BEDT)Tf_2Cu[N(CN)_2]Br$ . Physical Review B, 1999, 59, 3841-3844.	3.2	57
43	Field-dependent transport critical current in single crystals of $Ba(Fe_{1-x}Tj_x)ETQq1$ 1 0.784314 rgBT /Overlock 10 Tf 50 507 Td ( $\hat{a}^*$ ) Physical Review B, 2010, 82, .	3.5	54
44	Pressure-induced Fermi surface reconstruction in the Fe-based superconductor $Ba_{1-x}K_xFe_2As_2$ Physical Review B, 2010, 82, .	3.2	54
45	Energy gap evolution across the superconductivity dome in single crystals of $(Ba_{1-x}Tj_x)ETQq1$ 1 0.784314 rgBT /Overlock 10 Tf 50 397 Td Physical Review B, 2010, 82, .	10.3	54
46	Comprehensive scenario for single-crystal growth and doping dependence of resistivity and anisotropic upper critical fields in $(Ba_{1-x}Tj_x)ETQq0$ 0 0 rgBT /Overlock 10 Tf 50 397 Td (Physical Review B, 2010, 82, .)	3.2	52
47	Evidence from anisotropic penetration depth for a three-dimensional nodal superconducting gap in single-crystalline $Ba_{1-x}Tj_xFe_2As_2$ Physical Review B, 2010, 82, .		

#	ARTICLE	IF	CITATIONS
55	Heat Transport as a Probe of Electron Scattering by Spin Fluctuations: The Case of Antiferromagnetic CeRhIn5. Physical Review Letters, 2005, 94, 216602.	7.8	43
56	Upper critical field of $KFe_2As_2$ to pressure: A test for the change in the superconducting gap structure. Physical Review B, 2014, 89, .	7.8	43
57	Superconducting Order Parameter in Proton Irradiated $KFe_2As_2$ . Physical Review Letters, 2018, 121, 107001.	7.8	42
58	Uniaxial strain control of spin-polarization in multicomponent nematic order of BaFe2As2. Nature Communications, 2018, 9, 1058.	12.8	41
59	Interlayer Coherence and Superconducting Condensate in the c-Axis Response of Optimally Doped Ba(Fe1-xCox)2As2 High-Tc Superconductor Using Infrared Spectroscopy. Physical Review Letters, 2013, 110, 097003.	7.8	39
60	Doping dependence of the superconducting gap in Tl2Ba2CuO6+δ from heat transport. Physical Review B, 2007, 75, .	3.2	38
61	Nodeless superconductivity in the type-II Dirac semimetal PdTe2: London penetration depth and pairing-symmetry analysis. Physical Review B, 2018, 98, .	3.2	38
62	Anisotropy of the Upper Critical Field of the Organic Superconductor $\kappa$ -(BETS)2GaCl4. Journal of Superconductivity and Novel Magnetism, 1999, 12, 511-514.	0.5	36
63	Isotropic three-dimensional gap in the iron arsenide superconductor LiFeAs from directional heat transport measurements. Physical Review B, 2011, 84, . Doping-dependent superconducting gap anisotropy in the two-dimensional pnictide Ca	3.2	35
64			

#	ARTICLE	IF	CITATIONS
73	Upper critical field of high-quality single crystals of $KFe_2As_2$ . Environmental stability and anisotropic resistivity of Co-doped $NaxFe_{1-x}Co_xAs_2$ . Physical Review B, 2012, 86, .	3.2	30
74	Hybrid Gap Structure of the Heavy-Fermion Superconductor $CeIrIn_5$ . Physical Review Letters, 2007, 99, 187004.	3.2	28
75	Spatially-resolved study of the Meissner effect in superconductors using NV-centers-in-diamond optical magnetometry. New Journal of Physics, 2018, 20, 043010.	7.8	27
76	Tuning the Intrinsic Anisotropy with Disorder in the $CaK_4Fe_4As_8$ Superconductor. Physical Review Applied, 2020, 13, .	2.9	26
77	Pressure-temperature phase diagram of the organic superconductor $(BEDT-TTF)_2Cu[N(CN)_2]I$ . Physical Review B, 2002, 65, .	3.8	26
78	Millimeter-wave surface impedance of optimally-doped $Ba(Fe_{1-x}Tl_x)_{2}As_2$ . Physical Review B, 2019, 100, .	3.2	25
79	Transport and thermodynamic properties of $(Ca_{1-x}Tl_x)_{2}As_2$ . Physical Review B, 2019, 100, .	3.2	25
80	Electron irradiation effects on superconductivity in $PdTe_{1-x}S_x$ . An application of a generalized Anderson theorem. Physical Review Research, 2020, 2, .	3.2	25
81	Competition between superconductivity and magnetic/nematic order as a source of anisotropic superconducting gap in underdoped $Ba_{1-x}K_xFe_2As_2$ . Physical Review B, 2019, 100, .	3.6	25
82	Analysis of the London penetration depth in Ni-doped $KCaFe_4As_8$ . Physical Review B, 2019, 100, .	3.2	24
83	Electronic transport properties and structural transformations of $(BEDT-TTF)_2Cu[N(CN)_2]I$ . Physical Review B, 2000, 62, 15561-15568.	3.2	22
84	Interplane resistivity of underdoped single crystals $(Ba_{1-x}Tl_x)_{2}As_2$ . Physical Review B, 2019, 100, .	3.2	22
85	Anisotropy of the coherence length from critical currents in the stoichiometric superconductor $LiFeAs$ . Physical Review B, 2011, 84, .	3.2	21
86	Systematics of the temperature-dependent interplane resistivity in $Ba(Fe_{1-x}Tl_x)_{2}As_2$ . Physical Review B, 2019, 100, .	3.2	21
87	Absolute value and temperature dependence of the magnetic penetration depth in $Ba(Co_{1-x}Fe_x)_{2}As_2$ . Physical Review B, 2014, 90, .	3.2	21
88	Infrared pseudogap in cuprate and pnictide high-temperature superconductors. Physical Review B, 2014, 90, .	3.2	21
89	Ambient-pressure bulk superconductivity deep in the magnetic state of $CeRhIn_5$ . Physical Review B, 2008, 77, .	3.2	20
90			

#	ARTICLE	dependent upper critical field of overdoped Ba(Fe<math>Tj</math> ETQq1 1 0.784314 rgBT /Overlock 10 TF IF 767 Td	CITATIONS
91	Evolution of London penetration depth with scattering in single crystals of <math>K</math>		3.2 20
92	Evolution of London penetration depth with scattering in single crystals of <math>K</math>		3.2 20
93	Magnetic field and temperature phase diagram of the pressurized organic superconductor <math>(BEDT\hat{a}^{\sim}TTF)2Cu[N(CN)2]</math> in the field parallel to the conducting plane. Physical Review B, 2002, 65, .		3.2 19
94	Expansion of the tetragonal magnetic phase with pressure in the iron arsenide superconductor <math>Ba1\hat{a}^{\sim}xKxFe2As2</math>. Physical Review B, 2016, 93, .		3.2 19
95	Non-Fermi-liquid types of behavior associated with a magnetic quantum critical point in <math>Sr</math> Physical Review B, 2019, 100, .		3.2 10
96	Doping-dependent anisotropic superconducting gap in Na<math>K</math>		

#	ARTICLE	IF	CITATIONS
109	Interplay between superconductivity and itinerant magnetism in underdoped $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ ( $x \approx 0.2$ ) probed by the response to controlled point-like disorder. <i>Npj Quantum Materials</i> , 2019, 4, .	5.2	15
110	NMR study of nematic spin fluctuations in a detwinned single crystal of underdoped $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ . <i>Physical Review B</i> , 2016, 94, .	3.2	14
111	Effect of heavy-ion irradiation on London penetration depth in overdoped $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ . <i>Physical Review B</i> , 2013, 88, .	3.2	13
112	Local nematic susceptibility in stressed $\text{BaFe}_{1-x}\text{Co}_x\text{As}_2$ from NMR electric field gradient measurements. <i>Physical Review B</i> , 2017, 96, .	3.2	13
113	Quantum phase transition inside the superconducting dome of $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ from diamond-based optical magnetometry. <i>New Journal of Physics</i> , 2020, 22, 053037.	2.9	13
114	Magnetic Properties of RB66 (R = Gd, Tb, Ho, Er, and Lu). <i>Journal of Superconductivity and Novel Magnetism</i> , 2012, 25, 2371-2375.	1.8	12
115	Antiferromagnetic spin correlations and pseudogaplike behavior in $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ studied by $^{75}\text{As}$ nuclear magnetic resonance and anisotropic resistivity. <i>Physical Review B</i> , 2015, 92, .	3.2	12
116	Universal heat conduction and nodal gap structure of the heavy-fermion superconductor $\text{CeIrIn}_5$ . <i>Physical Review B</i> , 2010, 82, .	3.2	11
117	Magnetic-field-dependent pinning potential in $\text{LiFeAs}$ superconductor from its Campbell penetration depth. <i>Physical Review B</i> , 2011, 84, . Upper critical field of isoelectron substituted $\text{SrFe}_{1-x}\text{Co}_x\text{As}_2$ .	3.2	11
118			



#	ARTICLE	IF	CITATIONS
127	Origin of the second magnetization peak and magnetic relaxation in $\text{CeTe}$ . <i>Physical Review B</i> , 2018, 97, .	3.2	9
128	Self-Consistent Two-Gap Description of $\text{MgB}_2$ Superconductor. <i>Symmetry</i> , 2019, 11, 1012.	2.2	9
129	Clathrate $\text{BaNi}_2\text{P}_4$ : An Interplay of Heat and Charge Transport Due to Strong Host-Guest Interactions. <i>Chemistry of Materials</i> , 2020, 32, 7932-7940.	6.7	9
130	Unusual dynamic susceptibility arising from soft ferromagnetic domains in $\text{MnBi}_8\text{Te}_{13}$ and Sb-doped $\text{MnBi}_{2n}\text{Te}_{3n+1}$ ( $n=2, 3$ ). <i>Journal Physics D: Applied Physics</i> , 2022, 55, 054003.	2.8	9
131	Multiband superconductivity in $\text{V}_3\text{Si}$ determined from studying the response to controlled disorder. <i>Physical Review B</i> , 2022, 105, .	3.2	9
132	Thermal conductivity of the antiferromagnetic organic superconductor $\hat{\Gamma}^2\text{(BETS)}_2\text{FeBr}_4$ in the low-field and field-induced superconducting states. <i>Physica C: Superconductivity and Its Applications</i> , 2003, 388-389, 613-614.	1.2	8
133	Dependence of the absolute value of the penetration depth in $\text{Ba}(\text{Fe}_{1-x}\text{Ru}_x)_2\text{As}_2$ . <i>Physical Review B</i> , 2018, 98, .	3.2	8
134	Superconducting State of the Layered Conductor $\hat{\Gamma}^{\pm}\text{(BEDT-TTF)}_2\text{NH}_4\text{Hg(SCN)}_4$ in Magnetic Fields Parallel to the Layer Plane. <i>Journal of the Physical Society of Japan</i> , 2002, 71, 2240-2246.	1.6	7
135	Thermal conductivity of layered organic superconductor $\hat{\Gamma}^2\text{(BDA}^{\sim}\text{TTP)}_2\text{SbF}_6$ in a parallel magnetic field: Anomalous effect of coreless vortices. <i>Physical Review B</i> , 2005, 71, .	3.2	7
136	Millimeter-wave study of London penetration depth temperature dependence in $\text{Ba}(\text{Fe}_{0.926}\text{Co}_{0.074})_2\text{As}_2$ single crystal. <i>Low Temperature Physics</i> , 2011, 37, 725-728.	0.6	7
137	Quantum Critical Quasiparticle Scattering within the Superconducting State of $\text{CeCoIn}_5$ . <i>Physical Review Letters</i> , 2016, 117, 016601.	7.8	7
138	Tunnel diode resonator for precision magnetic susceptibility measurements in a mK temperature range and large DC magnetic fields. <i>Review of Scientific Instruments</i> , 2018, 89, 094704.	1.3	7
139	Multi-band effects in in-plane resistivity anisotropy of strain-detwinned disordered $\text{Ba}(\text{Fe}_{1-x}\text{Ru}_x)_2\text{As}_2$ . <i>Journal of Physics Condensed Matter</i> , 2018, 30, 315601.	1.8	7
140	Competition between orthorhombic and re-entrant tetragonal phases in underdoped $\text{BaKFe}_2\text{As}_2$ probed by the response to contr. <i>Physical Review B</i> , 2019, 99, .	3.2	6
141	Possible unconventional pairing in $\text{Ca}(\text{Fe}_{1-x}\text{Ru}_x)_2\text{As}_2$ superconductors reveal. <i>Physical Review B</i> , 2022, 105, .	3.2	6
142	Dome-like variation of the superconducting gap anisotropy in Fe-based superconductors. <i>Journal of Physics: Conference Series</i> , 2013, 449, 012020.	0.4	5
143	Heat transport study of field-tuned quantum criticality in $\text{CeIrIn}_5$ . <i>Physical Review B</i> , 2016, 93, .	3.2	4
144	Modular portable unit for thermal conductivity measurements in multiple cryogenic/magnetic field environments. <i>Review of Scientific Instruments</i> , 2018, 89, 013903.	1.3	4

#	ARTICLE	IF	CITATIONS
145	Effect of Controlled Artificial Disorder on the Magnetic Properties of $\text{EuFe}_2(\text{As}_{1-x}\text{Px})_2$ Ferromagnetic Superconductor. <i>Materials</i> , 2021, 14, 3267.	2.9	4
146	Polarized Light Microscopy Study on the Reentrant Phase Transition in a $(\text{Ba}_{1-x}\text{K}_x)\text{Fe}_2\text{As}_2$ Single Crystal with $x = 0.24$ . <i>Crystals</i> , 2016, 6, 142.	2.2	3
147	Doping evolution of the anisotropic upper critical fields in the iron-based superconductor $(\text{Ba}_{1-x}\text{K}_x)\text{Fe}_2\text{As}_2$ . <i>Physical Review B</i> , 2017, 96, .	3.2	3
148	Campbell penetration depth in low carrier density superconductor $\text{YPtBi}$ . <i>Physical Review B</i> , 2021, 104, .	3.2	3
149	Point Contact Spectroscopy Study of $\text{ZrZn}_2$ . <i>AIP Conference Proceedings</i> , 2006, , .	0.4	2
150	Universal doping evolution of the superconducting gap anisotropy in single crystals of electron-doped $\text{Ba}(\text{Fe}_{1-x}\text{Rh}_x)_2\text{As}_2$ from London penetration depth measurements. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 225602.	1.8	2
151	Mechanical detwinning device for anisotropic resistivity measurements in samples requiring dismantling for particle irradiation. <i>Review of Scientific Instruments</i> , 2020, 91, 073904.	1.3	2
152	Itinerant G-type antiferromagnet $\text{SrCr}_2\text{As}_2$ studied by magnetization, heat capacity, electrical resistivity, and NMR measurements. <i>Physical Review B</i> , 2022, 105, .	3.2	2
153	Zero field magnetic phase transitions and anomalous low temperature upturn in resistivity of single crystalline $\text{ThAlB}_4$ . <i>Journal of Applied Physics</i> , 2010, 107, 09E148.	2.5	1
154	Doping-evolution of the superconducting gap in single crystals of $(\text{Ca}_{1-x}\text{La}_x)_{10}(\text{Pt}_3\text{As}_8)(\text{Fe}_2\text{As}_2)_5$ superconductor from London penetration depth measurements. <i>Superconductor Science and Technology</i> , 2014, 27, 104006.	3.5	1
155	Intermediate scattering potential strength in electron-irradiated $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ from London penetration depth measurements. <i>Physical Review B</i> , 2022, 105, .	3.2	1
156	Li Intercalation in $\text{Tl}_2\text{Ba}_2\text{CuO}_{6+\delta}$ Superconductor and Effective Charge of Migrating Li Ion. <i>Molecular Crystals and Liquid Crystals</i> , 2000, 341, 189-192.	0.3	0
157	Light Interference Study of Superionic Transition in Synthetic Metal-Organic Framework Solid Electrolyte Hybrid $(\text{BEDT-TTF})_3\text{AgxI}_8$ . <i>Molecular Crystals and Liquid Crystals</i> , 2000, 341, 539-542.	0.3	0
158	Effect of controlled pointlike disorder induced by 2.5-MeV electron irradiation on the nematic resistivity anisotropy of hole-doped $(\text{Ba},\text{K})\text{Fe}_2\text{As}_2$ . <i>Physical Review B</i> , 2020, 102, .	3.2	0
159	Universal temperature dependence of the London penetration depth in $\text{FeAs}_2$ superconductors. <i>Physical Review B</i> , 2020, 101, .	3.2	0
160	London penetration depth at zero temperature and near the superconducting transition. <i>Physical Review B</i> , 2020, 101, .	3.2	0
161	Low-temperature high-frequency dynamic magnetic susceptibility of classical spin-ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ . <i>Journal of Physics Condensed Matter</i> , 2021, 33, 455802.	1.8	0
162	Subphases in the superconducting state of $\text{CeIrIn}_5$ revealed by low-temperature $c$ -axis heat transport. <i>Physical Review Research</i> , 2022, 4, .	3.6	0

#	ARTICLE	IF	CITATIONS
163	Nematicity and Glassy Behavior Probed by Nuclear Magnetic Resonance in Iron-Based Superconductors. <i>Frontiers in Physics</i> , 2022, 10, .	2.1	0