

Thomas Prokscha

List of Publications by Year in descending order

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131
papers

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citations

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134
all docs

134
docs citations

134
times ranked

4431
citing authors

#	ARTICLE	IF	CITATIONS
1	Precision Measurement of the Lamb Shift in Muonium. <i>Physical Review Letters</i> , 2022, 128, 011802.	7.8	16
2	Muon spin spectroscopy. <i>Nature Reviews Methods Primers</i> , 2022, 2, .	21.2	42
3	Characterization of a Continuous Muon Source for the Non-Destructive and Depth-Selective Elemental Composition Analysis by Muon Induced X- and Gamma-rays. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2541.	2.5	9
4	Simulation studies for upgrading a high-intensity surface muon beamline at Paul Scherrer Institute. <i>Physical Review Accelerators and Beams</i> , 2022, 25, .	1.6	3
5	Strain tuning of interorbital correlations in LaVO_3 thin films. <i>Physical Review B</i> , 2021, 103, .	3.2	9
6	Spin-singlet to triplet Cooper pair converter interface. <i>Communications Physics</i> , 2021, 4, .	5.3	7
7	Sulfur-induced magnetism in $\text{FeSe}_{1-x}\text{S}_x$ thin films on LaAlO_3 revealed by muon spin rotation/relaxation. <i>Physical Review B</i> , 2021, 103, .	3.2	4
8	Magnetic order of tetragonal CuO ultrathin films. <i>Physical Review B</i> , 2021, 103, .	3.2	2
9	Structural properties and anion dynamics of yttrium dihydride and photochromic oxyhydride thin films examined by <i>in situ</i> μSR . <i>Physical Review B</i> , 2021, 103, .	3.2	9
10	Observation of a molecular muonium polaron and its application to probing magnetic and electronic states. <i>Physical Review B</i> , 2021, 104, .	3.2	0
11	Meissner screening as a probe for inverse superconductor-ferromagnet proximity effects. <i>Physical Review B</i> , 2021, 104, .	3.2	5
12	Unveiling unconventional magnetism at the surface of Sr_2RuO_4 . <i>Nature Communications</i> , 2021, 12, 5792.	12.8	11
13	Unconventional Meissner screening induced by chiral molecules in a conventional superconductor. <i>Physical Review Materials</i> , 2021, 5, .	2.4	11
14	Front passivation of $\text{Cu}(\text{In,Ga})\text{Se}_2$ solar cells using Al_2O_3 : Culprits and benefits. <i>Applied Materials Today</i> , 2020, 21, 100867.	4.3	28
15	Direct Observation of Hole Carrier-Density Profiles and Their Light-Induced Manipulation at the Surface of Ge . <i>Physical Review Applied</i> , 2020, 14, .	3.8	6
16	Experimental Study of the Magnetic Field Distribution and Shape of Domains Near the Surface of a Type-I Superconductor in the Intermediate State. <i>Journal of Superconductivity and Novel Magnetism</i> , 2020, 33, 3361-3376.	1.8	4
17	Kubo spins in nanoscale aluminum grains: A muon spin relaxation study. <i>Physical Review B</i> , 2020, 101, .	3.2	3
18	Muon Interaction with Negative- U and High-Spin-State Defects: Differentiating Between C and Si . <i>Physical Review B</i> , 2020, 101, .	3.8	7

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19	Proximity-Induced Odd-Frequency Superconductivity in a Topological Insulator. Physical Review Letters, 2020, 125, 026802.	7.8	34
20	Muon implantation experiments in films: Obtaining depth-resolved information. Review of Scientific Instruments, 2020, 91, 023906.	1.3	13
21	Reversible spin storage in metal oxide/fullerene heterojunctions. Science Advances, 2020, 6, eaax1085.	10.3	10
22	Intense beam of metastable Muonium. European Physical Journal C, 2020, 80, 804.	3.9	9
23	Controlling the electromagnetic proximity effect by tuning the mixing between superconducting and ferromagnetic order. Physical Review B, 2019, 100, .	3.2	15
24	Manifestation of the electromagnetic proximity effect in superconductor-ferromagnet thin film structures. Applied Physics Letters, 2019, 115, .	3.3	18
25	Interaction of low-energy muons with defect profiles in proton-irradiated Si and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mn}>4\langle / \text{mml:mn}> \langle \text{mml:mi}>H\langle / \text{mml:mi}> \langle / \text{mml:math}>$ -SiC. Physical Review B, 2019, 100, .	3.2	15
26	Phase transition in the cuprates from a magnetic-field-free stiffness meter viewpoint. Nature Communications, 2019, 10, 2463.	12.8	9
27	Engineering the magnetic order in epitaxially strained $\text{Sr}1\hat{x}\text{BaxMnO}_3$ perovskite thin films. APL Materials, 2019, 7, .	5.1	10
28	Evidence for the homogeneous ferromagnetic phase in (Ga,Mn)(Bi,As) epitaxial layers from muon spin relaxation spectroscopy. Scientific Reports, 2019, 9, 3394.	3.3	8
29	Do topology and ferromagnetism cooperate at the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mrow}> \langle \text{mml:mi}>EuS\langle / \text{mml:mi}> \langle \text{mml:mo}>/\langle / \text{mml:mo}> \langle \text{mml:mrow}> \langle \text{mml:mi}>Bi\langle / \text{mml:mi}> \langle \text{mml:mo}>/\langle / \text{mml:mo}> \langle \text{mml:mrow}> \langle \text{mml:mi}>As\langle / \text{mml:mi}> \langle / \text{mml:mrow}> \langle / \text{mml:math}>$ interface?. Physical Review B, 2019, 99, .	3.2	14
30	Intertwined magnetic, structural, and electronic transitions in V_2O_3 . Physical Review B, 2019, 100, .	3.2	14
31	Search for the Magnetic Monopole at a Magnetoelectric Surface. Physical Review X, 2019, 9, .	8.9	15
32	Quasistatic antiferromagnetism in the quantum wells of $\text{SmTiO}_3/\text{SrTiO}_3$ heterostructures. Npj Quantum Materials, 2018, 3, .	5.2	8
33	LE-(μ^+)SR Study of Superconductivity in the Thin Film Battery Material LiTi_2O_4 . , 2018, , .		1
34	Superconductivity drives magnetism in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi}>\hat{\Gamma}\langle / \text{mml:mi}> \langle / \text{mml:math}>$ -doped $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mrow}> \langle \text{mml:mrow}> \langle \text{mml:mi}>La\langle / \text{mml:mi}> \langle \text{mml:mn}>2\langle / \text{mml:mn}> \langle / \text{mml:mrow}> \langle / \text{mml:mrow}> \langle / \text{mml:math}>$ Physical Review B, 2018, 97, .	3.2	18
35	Unexpected effects of thickness and strain on superconductivity and magnetism in optimally doped $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mrow}> \langle \text{mml:mrow}> \langle \text{mml:mi}>La\langle / \text{mml:mi}> \langle \text{mml:mrow}> \langle \text{mml:mn}>1.84\langle / \text{mml:mn}> \langle / \text{mml:mrow}> \langle / \text{mml:mrow}> \langle / \text{mml:math}>$ thin films. Physical Review B, 2018, 97, .	3.2	6
36	Investigation of Hydrogen-Like Muonium States in Nb-Doped SnO_2 Films. , 2018, , .		1

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37	Superconducting Properties of Cu Intercalated Bi ₂ Se ₃ Studied by Muon Spin Spectroscopy. , 2018, , .		7
38	Microscopic effects of Dy doping in the topological insulator Bi_2Te_3 . Physical Review B, 2018, 97, .	2.2	12
39	Collective magnetism in an artificial 2D XY spin system. Nature Communications, 2018, 9, 2850.	12.8	37
40	Direct evidence of superconductivity and determination of the superfluid density in buried ultrathin FeSe grown on SrTiO ₃ . Physical Review B, 2018, 97, .	3.2	14
41	Spin-phonon coupling in epitaxial CuNb_2S_7 thin films. Physical Review Letters, 2018, 120, 247001.	7.8	34
42	Intrinsic or Interface Clustering-Induced Ferromagnetism in Fe-Doped In ₂ O ₃ -Diluted Magnetic Semiconductors. ACS Applied Materials & Interfaces, 2018, 10, 22372-22380.	8.0	23
43	Slow-muon study of quaternary solar-cell materials: Single layers and junctions. Physical Review Materials, 2018, 2, .	2.4	2
44	Strain-induced competition between ferromagnetism and emergent antiferromagnetism in (Eu,Sr)MnO ₃ . Physical Review Materials, 2018, 2, .	2.4	2
45	Li-Diffusion in Spinel Li[Ni _{1/2} Mn _{3/2}]O ₄ Powder and Film Studied with ⁶ Li-SR. , 2018, , .		0
46	Controlling the Electrical and Magnetoelectric Properties of Epitaxially Strained Sr _{1-x} Ba _x MnO ₃ Thin Films. Advanced Materials Interfaces, 2017, 4, 1601040.	3.7	14
47	Probing current-induced magnetic fields in Au YIG heterostructures with low-energy muon spin spectroscopy. Applied Physics Letters, 2017, 110, 062409.	3.3	1
48	A segmented conical electric lens for optimization of the beam spot of the low-energy muon facility at PSI: a Geant4 simulation analysis. Nuclear Science and Techniques/Hewuli, 2017, 28, 1.	3.4	7
49	Emergent magnetism at transition-metal/nanocarbon interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5583-5588.	7.1	20
50	Room-temperature helimagnetism in FeGe thin films. Scientific Reports, 2017, 7, 123.	3.3	44
51	Suppression of magnetic excitations near the surface of the topological Kondo insulator SmB_6 . Physical Review B, 2017, 95, .		
52	Spectroscopic perspective on the interplay between electronic and magnetic properties of magnetically doped topological insulators. Physical Review B, 2017, 96, .	3.2	32
53	Spin-phonon coupling in epitaxial Sr_2RuO_4 thin films. Physical Review B, 2017, 96, .	3.2	12
54	Intrinsic and spatially nonuniform ferromagnetism in Co-doped ZnO films. Physical Review B, 2017, 96, .	3.2	25

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55	Robust Magnetic Properties of a Sublimable Single-Molecule Magnet. ACS Nano, 2016, 10, 5663-5669.	14.6	46
56	Spatial confinement of muonium atoms. Physical Review A, 2016, 94, .	2.5	9
57	Coexisting multiple order parameters in single-layer LuMnO_3 films. Physical Review B, 2016, 94, .	3.2	6
58	Intrinsic Ferromagnetism in the Diluted Magnetic Semiconductor CoTiO_3 . Physical Review Letters, 2016, 117, 227202.	7.8	63
59	Transverse field muon-spin rotation measurement of the topological anomaly in a thin film of MnSi. Physical Review B, 2016, 93, .	3.2	12
60	Remotely induced magnetism in a normal metal using a superconducting spin-valve. Nature Physics, 2016, 12, 57-61.	16.7	55
61	Core-shell nanostructure in a $\text{Ge}_{0.9}\text{Mn}_{0.1}$ observed via structural and magnetic measurements. Physical Review B, 2015, 91, .	3.2	12
62	Li-ion diffusion in $\text{Li}_4\text{Ti}_5\text{O}_{12}$ and $\text{Li}_2\text{Ti}_2\text{O}_7$. Physical Review B, 2015, 92, .	5.5	55
63	Nature of antiferromagnetic order in epitaxially strained multiferroic SrMnO_3 films. Physical Review B, 2015, 92, .	3.2	12
64	Distribution of glass transition temperatures T_g of polystyrene thin films as revealed by low-energy muon spin relaxation: A comparison with neutron reflectivity results. Physical Review E, 2015, 92, 022604.	2.1	13
65	Geant4 simulation of the PSI LEM beam line: energy loss and muonium formation in thin foils and the impact of unmoderated muons on the μSR spectrometer. Journal of Instrumentation, 2015, 10, P10025-P10025.	1.2	11
66	Interfacial dominated ferromagnetism in nanograined ZnO: a μSR and DFT study. Scientific Reports, 2015, 5, 8871.	3.3	97
67	Intrinsic Paramagnetic Meissner Effect Due to s -Wave Odd-Frequency Superconductivity. Physical Review X, 2015, 5, .	8.9	86
68	The phase diagram of electron-doped $\text{La}_{2-x}\text{Ce}_x\text{CuO}_4$. Nature Communications, 2015, 6, 6041.	12.8	49
69	Beating the Stoner criterion using molecular interfaces. Nature, 2015, 524, 69-73.	27.8	151
70	Elevated Curie temperature and half-metallicity in the ferromagnetic semiconductor $\text{La}_x\text{Eu}_{1-x}\text{O}$. Physical Review B, 2015, 92, .	3.2	5
71	Thermodynamic phase transitions in a frustrated magnetic metamaterial. Nature Communications, 2015, 6, 8278.	12.8	109
72	Muonium states in $\text{Cu}_2\text{ZnSnS}_4$ solar cell material. Journal of Physics: Conference Series, 2014, 551, 012045.	0.4	8

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73	<p>Measurements of the Meissner screening profile in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconducting films. <i>Physical Review Letters</i>, 2014, 113, 156801.</p>	3.2	8
74	<p>Direct Spectroscopic Observation of a Shallow Hydrogenlike Donor State in Insulating SrTiO_3. <i>Physical Review Letters</i>, 2014, 113, 156801.</p>	7.8	23
75	<p>Strong Meissner screening change in superconducting radio frequency cavities due to mild baking. <i>Applied Physics Letters</i>, 2014, 104, .</p>	3.3	33
76	<p>Measurement of the spatial extent of inverse proximity in a $\text{Py}/\text{Nb}/\text{Py}$ superconducting trilayer using low-energy muon-spin rotation. <i>Physical Review B</i>, 2014, 89, .</p>	3.2	14
77	<p>Polymer dynamics near the surface and in the bulk of poly(tetrafluoroethylene) probed by zero-field muon-spin-relaxation spectroscopy. <i>Physical Review E</i>, 2014, 89, 022605.</p>	2.1	4
78	<p>Depth dependence of the ionization energy of shallow hydrogen states in ZnO and CdS. <i>Physical Review B</i>, 2014, 90, .</p>	3.2	8
79	<p>Simulation of $\text{TF-}\mu\text{SR}$ histograms in germanium in the presence of cyclic charge state transitions of muonium. <i>Journal of Physics: Conference Series</i>, 2014, 551, 012049.</p>	0.4	2
80	<p>Controlling the near-surface superfluid density in underdoped $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ by photo-illumination. <i>Scientific Reports</i>, 2014, 4, 6250.</p>	3.3	11
81	<p>Low-Energy Muons at PSI: Examples of Investigations of Superconducting Properties in Near-Surface Regions and Heterostructures. , 2014, , .</p>		1
82	<p>Nonlocal effect and dimensions of Cooper pairs measured by low-energy muons and polarized neutrons in type-I superconductors. <i>Physical Review B</i>, 2013, 87, .</p>	3.2	14
83	<p>Photo-induced persistent inversion of germanium in a 200-nm-deep surface region. <i>Scientific Reports</i>, 2013, 3, 2569.</p>	3.3	16
84	<p>Absence of spontaneous magnetism associated with a possible time-reversal symmetry breaking state beneath the surface of (110)-oriented $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconducting films. <i>Physical Review B</i>, 2013, 88, .</p>	3.2	13
85	<p>Magnetic phase diagram of low-doped La_2CuO_4. <i>Physical Review B</i>, 2013, 88, .</p>	3.2	27
86	<p>Spatially Homogeneous Ferromagnetism below the Enhanced Curie Temperature in EuO_{1-x} Thin Films. <i>Physical Review Letters</i>, 2013, 110, 217208.</p>	7.8	17
87	<p>Temperature dependence of the magnetic penetration depth in $\text{Ba}(\text{Co}_{1-x}\text{Fe}_x)\text{Tl}$. <i>Physical Review Letters</i>, 2012, 108, 143401.</p>	3.2	21
88	<p>Muonium Emission into Vacuum from Mesoporous Thin Films at Cryogenic Temperatures. <i>Physical Review Letters</i>, 2012, 108, 143401.</p>	7.8	37
89	<p>Monte-Carlo Simulation of Transitions between Different Muonium States. <i>Physics Procedia</i>, 2012, 30, 50-54.</p>	1.2	5
90	<p>Design and Simulation of a Spin Rotator for Longitudinal Field Measurements in the Low Energy Muons Spectrometer. <i>Physics Procedia</i>, 2012, 30, 55-60.</p>	1.2	14

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91	Zero-field Spin Depolarization of Low-Energy Muons in Ferromagnetic Nickel and Silver Metal. Physics Procedia, 2012, 30, 164-167.	1.2	15
92	Low-energy $\frac{1}{4}$ SR Investigations of Photo-induced Effects on a nm Scale. Physics Procedia, 2012, 30, 219-223.	1.2	3
93	Depth-Dependent Spin Dynamics in Thin Films of TbPc_2 Nanomagnets Explored by Low-Energy Implanted Muons. ACS Nano, 2012, 6, 8390-8396.	14.6	38
94	The Meissner effect in a strongly underdoped cuprate above its critical temperature. Nature Communications, 2011, 2, 272.	12.8	39
95	Engineering spin propagation across a hybrid organic/inorganic interface using a polar layer. Nature Materials, 2011, 10, 39-44.	27.5	152
96	Dimensionality Control of Electronic Phase Transitions in Nickel-Oxide Superlattices. Science, 2011, 332, 937-940.	12.6	331
97	Two-Dimensional Magnetic and Superconducting Phases in Metal-Insulator La_2X_2 Measured by Muon-Spin Rotation. Physical Review Letters, 2011, 106, 237003.	7.8	19
98	Spatially homogeneous ferromagnetism of (Ga, Mn)As. Nature Materials, 2010, 9, 299-303.	27.5	71
99	Direct measurement of the London penetration depth in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ low-energy μ SR. Physical Review B, 2010, 81, ...	27.5	37
100	Direct measurement of the electronic spin diffusion length in a fully functional organic spin valve by low-energy muon spin rotation. Nature Materials, 2009, 8, 109-114.	27.5	251
101	Low energy studies of semiconductor interfaces. Physica B: Condensed Matter, 2009, 404, 873-875.	2.7	1
102	Low-energy muon [LEM] study of Zn-phthalocyanine and ZnO thin films. Physica B: Condensed Matter, 2009, 404, 870-872.	2.7	3
103	Near-surface muonium states in germanium. Physica B: Condensed Matter, 2009, 404, 866-869.	2.7	2
104	A novel VME based SR data acquisition system at PSI. Physica B: Condensed Matter, 2009, 404, 1007-1009.	2.7	8
105	The new beam at PSI: A hybrid-type large acceptance channel for the generation of a high intensity surface-muon beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 595, 317-331.	1.6	176
106	Spatially Resolved Inhomogeneous Ferromagnetism in GaMnAs . Physical Review Letters, 2008, 101, 027202.	7.8	25
107	Microscopic Study by Muon Spin Relaxation. Physical Review Letters, 2008, 101, 027202. Formation of Hydrogen Impurity States in Silicon and Insulators at Low Implantation Energies. Physical Review Letters, 2007, 98, 227401.	7.8	26
108	Nonlocal Meissner screening. Physica B: Condensed Matter, 2006, 374-375, 243-246.	2.7	3

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109	The new high-intensity surface muon beam for the generation of low-energy muons at PSI. Physica B: Condensed Matter, 2006, 374-375, 460-463.	2.7	10
110	Geant4 simulation of low energy experiments at PSI. Physica B: Condensed Matter, 2006, 374-375, 498-501.	2.7	7
111	A scintillating fiber detector for muon beam profile measurements in high magnetic fields. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 550, 212-216.	1.6	18
112	Thin Film, Near-Surface and Multi-Layer Investigations by Low-Energy $\hat{1}/4$ +SR. Hyperfine Interactions, 2005, 159, 227-234.	0.5	2
113	A New High-intensity, Low-momentum Muon Beam for the Generation of Low-energy Muons at PSI. Hyperfine Interactions, 2005, 159, 385-388.	0.5	4
114	Coexistence and Coupling of Superconductivity and Magnetism in Thin Film Structures. Physical Review Letters, 2005, 95, 197201.	7.8	14
115	Observation of nonexponential magnetic penetration profiles in the Meissner state: A manifestation of nonlocal effects in superconductors. Physical Review B, 2005, 72, .	3.2	38
116	Direct Observation of Nonlocal Effects in a Superconductor. Physical Review Letters, 2004, 92, 087001.	7.8	36
117	Direct Observation of the Oxygen Isotope Effect on the In-Plane Magnetic Field Penetration Depth in Optimally Doped $YBa_2Cu_3O_{7-\delta}$. Physical Review Letters, 2004, 92, 057602.	7.8	127
118	Nano-scale thin film investigations with slow polarized muons. Journal of Physics Condensed Matter, 2004, 16, S4583-S4601.	1.8	79
119	Muonium formation at keV energies. Physica B: Condensed Matter, 2003, 326, 51-54.	2.7	6
120	Low energy muons as probes of thin films and near surface regions. Physica B: Condensed Matter, 2003, 326, 196-204.	2.7	28
121	Diffusion of muons in metallic multilayers. Physica B: Condensed Matter, 2003, 326, 545-549.	2.7	6
122	Observation of the Conduction Electron Spin Polarization in the Ag Spacer of aFe/Ag/FeTrilayer. Physical Review Letters, 2003, 91, 017204.	7.8	36
123	Implantation studies of keV positive muons in thin metallic layers. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 254-266.	1.4	118
124	Moderator gratings for the generation of epithermal positive muons. Applied Surface Science, 2001, 172, 235-244.	6.1	32
125	Upgrading the PSI Muon Facility. Hyperfine Interactions, 2001, 138, 483-488.	0.5	8
126	Low-energy $\hat{1}/4$ SR at PSI: present and future. Physica B: Condensed Matter, 2000, 289-290, 653-657.	2.7	68

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127	Superparamagnetic relaxation in iron nanoclusters measured by low energy muon spin rotation. Journal of Physics Condensed Matter, 2000, 12, 1399-1411.	1.8	32
128	Depth-Resolved Profile of the Magnetic Field beneath the Surface of a Superconductor with a Few nm Resolution. Physical Review Letters, 2000, 84, 4958-4961.	7.8	61
129	Low-Energy Muons as a Tool for a Depth-Resolved Analysis of the SiO ₂ /4H-SiC Interface. Materials Science Forum, 0, 1004, 581-586.	0.3	2
130	Depth-Resolved Study of the SiO ₂ - SiC Interface Using Low-Energy Muon Spin Rotation Spectroscopy. Materials Science Forum, 0, 1062, 315-319.	0.3	0
131	Characterization of the Interfacial Defect Layer in Chalcopyrite Solar Cells by Depth-Resolved Muon Spin Spectroscopy. Advanced Materials Interfaces, 0, , 2200374.	3.7	2