Matthias Opel

List of Publications by Year
in descending order

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109	5,120	94269	88477
papers	citations	37 h-index	70 g-index

113	113	113	5215
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spin Hall Magnetoresistance Induced by a Nonequilibrium Proximity Effect. Physical Review Letters, 2013, 110, 206601.	2.9	867
2	Quantitative study of the spin Hall magnetoresistance in ferromagnetic insulator/normal metal hybrids. Physical Review B, 2013, 87, .	1.1	422
3	Local Charge and Spin Currents in Magnetothermal Landscapes. Physical Review Letters, 2012, 108, 106602.	2.9	225
4	Electric field controlled manipulation of the magnetization in Ni/BaTiO3 hybrid structures. Applied Physics Letters, 2010, 96, .	1.5	158
5	Voltage controlled inversion of magnetic anisotropy in a ferromagnetic thin film at room temperature. New Journal of Physics, 2009, 11, 013021.	1.2	145
6	Spin Hall magnetoresistance in antiferromagnet/heavy-metal heterostructures. Physical Review B, 2018, 97, .	1.1	140
7	Epitaxial<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Zn</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> films: A spintronic material with tunable electrical and magnetic properties. Physical Review B, 2009, 79, .	1.1	134
8	Pseudogap and Superconducting Gap in the Electronic Raman Spectra of Underdoped Cuprates. Physical Review Letters, 1997, 78, 4837-4840.	2.9	133
9	Carrier relaxation, pseudogap, and superconducting gap in high-Tccuprates: A Raman scattering study. Physical Review B, 2000, 61, 9752-9774.	1.1	121
10	Investigation of induced Pt magnetic polarization in Pt/Y3Fe5O12 bilayers. Applied Physics Letters, 2012, 101, .	1.5	113
11	Spintronic oxides grown by laser-MBE. Journal Physics D: Applied Physics, 2012, 45, 033001.	1.3	110
12	In situmanipulation of magnetic anisotropy in magnetite thin films. Physical Review B, 2008, 77, .	1.1	96
13	Advanced spectroscopic synchrotron techniques to unravel the intrinsic properties of dilute magnetic oxides: the case of Co:ZnO. New Journal of Physics, 2010, 12, 013020.	1.2	89
14	Temperature dependent spin transport properties of platinum inferred from spin Hall magnetoresistance measurements. Applied Physics Letters, 2014, 104, .	1.5	84
15	Magnetic and structural properties ofGexMn1â^'xfilms: Precipitation of intermetallic nanomagnets. Physical Review B, 2006, 74, .	1.1	81
16	Spin-glass-like behavior of Ge:Mn. Physical Review B, 2006, 74, .	1.1	78
17	Hall effect, magnetization, and conductivity of Fe3O4 epitaxial thin films. Applied Physics Letters, 2004, 85, 4980-4982.	1.5	74
18	Spin Hall magnetoresistance in a canted ferrimagnet. Physical Review B, 2016, 94, .	1.1	73

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19	Hydrogen Control of Ferromagnetism in a Dilute Magnetic Semiconductor. Physical Review Letters, 2004, 92, 227202.	2.9	72
20	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ga</mml:mtext></mml:mrow><mml:mrow><mml:mn>1</mml:mn> actuator hybrids: A model system for magnetoelastic magnetization manipulation. Physical Review B, 2008, 78, .	1.1	72
21	X-ray magnetic circular dichroism study of Re 5d magnetism in Sr2CrReO6. Applied Physics Letters, 2005, 87, 202503.	1.5	71
22	Anomalous Hall effect in YIG|Pt bilayers. Applied Physics Letters, 2015, 106, .	1.5	69
23	A-site-disorder-dependent percolative transport and Griffiths phase in doped manganites. Physical Review B, 2004, 70, .	1.1	65
24	Laser molecular beam epitaxy of ZnO thin films and heterostructures. Journal Physics D: Applied Physics, 2014, 47, 034002.	1.3	60
25	Nanosized superparamagnetic precipitates in cobalt-doped ZnO. European Physical Journal B, 2008, 63, 437-444.	0.6	59
26	Observation of an Unconventional Metal-Insulator Transition in OverdopedCuO2Compounds. Physical Review Letters, 2002, 89, 107003.	2.9	56
27	Study of magnetic properties of A2Bâ€²NbO6 (A=Ba,Sr,BaSr; and Bâ€²=Fe and Mn) double perovskites. Journal of Applied Physics, 2004, 95, 7528-7530.	1.1	55
28	Anomalous Hall effect in magnetite: Universal scaling relation between Hall and longitudinal conductivity in low-conductivity ferromagnets. Physical Review B, 2008, 78, .	1.1	50
29	Magnetic interference patterns in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>0</mml:mn><mml:mtext>â^'</mml:mtext><mml:mi>Ï€</mml:mi></mml:mrow></mml:math> Josephson junctions: Effects of asymmetry between 0 and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math> regions. Physical Review B, 2010, 81, .	1.1	50
30	Physical origin of the buckling inCuO2: Electron-phonon coupling and Raman spectra. Physical Review B, 1999, 60, 9836-9844.	1.1	49
31	Novel multifunctional materials based on oxide thin films and artificial heteroepitaxial multilayers. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 232-251.	0.8	47
32	Large Spin Hall Magnetoresistance in Antiferromagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn><mml:mn> mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>Pt</mml:mi></mml:math> Heterostructures. Physical Review Applied, 2020, 13, .	1.5	47
33	Observation of Antiferromagnetic Magnon Pseudospin Dynamics and the Hanle Effect. Physical Review Letters, 2020, 125, 247204.	2.9	46
34	Converse magnetoelectric effects in Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>/BaTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	1.1	42
35	Doping dependence of the electronic Raman spectra in cuprates. Journal of Physics and Chemistry of Solids, 2002, 63, 2345-2348.	1.9	38
36	Piezoâ€voltage control of magnetization orientation in a ferromagnetic semiconductor. Physica Status Solidi - Rapid Research Letters, 2008, 2, 96-98.	1.2	38

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37	Low Temperature Properties and Superconductivity of LuB12. Journal of Low Temperature Physics, 2005, 140, 339-353.	0.6	37
38	Zinc oxide â€“From dilute magnetic doping to spin transport. Physica Status Solidi (B): Basic Research, 2014, 251, 1700-1709.	0.7	37
39	Epitaxy of Fe3O4 on Si(001) by pulsed laser deposition using a TiN/MgO buffer layer. Journal of Applied Physics, 2003, 94, 1857-1863.	1.1	36
40	Magnetic moments of W5dinCa2CrWO6andSr2CrWO6double perovskites. Physical Review B, 2005, 72, .	1.1	35
41	Epitaxial growth and transport properties of Sr2CrWO6 thin films. Journal of Applied Physics, 2003, 93, 6853-6855.	1.1	31
42	Giant magnetic anisotropy changes in Sr2CrReO6 thin films on BaTiO3. Applied Physics Letters, 2009, 95, 062508.	1.5	30
43	Nano- and Microstructures of Magnetic Field-Guided Maghemite Nanoparticles in Diblock Copolymer Films. ACS Applied Materials & Interfaces, 2014, 6, 5244-5254.	4.0	30
44	All oxide ferromagnet/semiconductor epitaxial heterostructures. Applied Physics Letters, 2008, 93, 162510.	1.5	29
45	Spin Hall magnetoresistance in antiferromagnetic insulators. Journal of Applied Physics, 2020, 127, .	1.1	27
46	Electrically detected ferromagnetic resonance. Applied Physics Letters, 2007, 90, 162507.	1.5	26
47	Spin transport and spin dephasing in zinc oxide. Applied Physics Letters, 2012, 101, 082404.	1.5	26
48	Arrangement of Maghemite Nanoparticles via Wet Chemical Self-Assembly in PS-<i>b</i>-PNIPAM Diblock Copolymer Films. ACS Applied Materials & Interfaces, 2015, 7, 13080-13091.	4.0	26
49	Epitaxial growth and magnetic properties of thin films. Journal of Magnetism and Magnetic Materials, 2009, 321, 2001-2004.	1.0	25
50	wave superconductivity: Analysis of the electronic Raman data of and other cuprates. European Physical Journal B, 1998, 5, 495-503.	0.6	24
51	Multiferroic materials based on artificial thin film heterostructures. Philosophical Magazine Letters, 2007, 87, 141-154.	0.5	24
52	Phonon anomalies in FeS. Physical Review B, 2018, 97, .	1.1	24
53	Electronic Raman scattering in CuO2 superconductors. Journal of Low Temperature Physics, 1996, 105, 733-742.	0.6	23
54	Enhanced electronâ€“phonon coupling and its irrelevence to high T superconductivity. Solid State Communications, 1998, 108, 407-411.	0.9	21

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55	Ferromagnetism in Mn-doped ZnO due to impurity bands. Superlattices and Microstructures, 2005, 37, 327-332.	1.4	21
56	Printed Thin Magnetic Films Based on Diblock Copolymer and Magnetic Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 2982-2991.	4.0	21
57	Orbital order and anisotropic transport properties in doped manganites induced by epitaxial coherency strain. Journal of Applied Physics, 2003, 93, 7373-7375.	1.1	20
58	Ferromagnetism in epitaxial Zn0.95Co0.05O films grown on ZnO and Al2O3. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3581-3596.	0.8	20
59	Magnetocrystalline anisotropy and magnetization reversal inGa1â^'xMnxPsynthesized by ion implantation and pulsed-laser melting. Physical Review B, 2007, 75, .	1.1	20
60	Ferroelectric and magnetic properties of Ho2CuTiO6 double perovskite. Journal of Magnetism and Magnetic Materials, 2006, 303, e332-e334.	1.0	18
61	Structural and magnetic properties of cobalt iron disulfide (CoxFe1â^'xS2) nanocrystals. Scientific Reports, 2018, 8, 4835.	1.6	18
62	Self-Assembly of Diblock Copolymerâ€“Maghemite Nanoparticle Hybrid Thin Films. ACS Applied Materials & Interfaces, 2014, 6, 18152-18162.	4.0	17
63	Sprayâ€Coating Magnetic Thin Hybrid Films of PSâ€‹bâ€PNIPAM and Magnetite Nanoparticles. Advanced Functional Materials, 2019, 29, 1808427.	7.8	17
64	Role of interface quality for the spin Hall magnetoresistance in nickel ferrite thin films with bulk-like magnetic properties. Applied Physics Letters, 2019, 115, .	1.5	16
65	<title>Electronic Raman scattering in copper-oxide superconductors and related compounds</title>. , 1996, , .		15
66	Magnetoresistance and Magnetic Properties of the Double Perovskites. Acta Physica Polonica A, 2004, 105, 7-26.	0.2	15
67	Giant magnetoelastic effects in BaTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>-based extrinsic multiferroic hybrids. Physical Review B, 2012, 86, .	1.1	14
68	Unambiguous determination of spin dephasing times in ZnO by timeâ€resolved magnetoâ€optical pumpâ€probe experiments. Physica Status Solidi (B): Basic Research, 2014, 251, 1861-1871.	0.7	13
69	Production and characterization of long-term stable superparamagnetic iron oxide-shell silica-core nanocomposites. Journal of Magnetism and Magnetic Materials, 2017, 442, 497-503.	1.0	13
70	Magnetic nanoparticle-containing softâ€“hard diblock copolymer films with high order. Nanoscale, 2018, 10, 11930-11941.	2.8	13
71	Quantifying the spin mixing conductance of EuO/W heterostructures by spin Hall magnetoresistance experiments. Applied Physics Letters, 2021, 118, .	1.5	13
72	Pseudogap and superconducting gap in the electronic Raman spectra of underdoped cuprates. Journal of Physics and Chemistry of Solids, 1998, 59, 1942-1946.	1.9	12

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73	Superconductivity of C60 fullerite intercalated with Ca by means of shock-wave pressure technique. Chemical Physics Letters, 2008, 457, 74-77.	1.2	12
74	Epitaxial growth of electron doped double perovskites with and Ca. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1154-1157.	1.0	10
75	Magnetic excitations and amplitude fluctuations in insulating cuprates. Physical Review B, 2018, 97, .	1.1	10
76	Self-Assembly of Large Magnetic Nanoparticles in Ultrahigh Molecular Weight Linear Diblock Copolymer Films. ACS Applied Materials & Interfaces, 2020, 12, 7557-7564.	4.0	10
77	Suppression of hole-mediated ferromagnetism in Ga1âˆ'xMnxP by hydrogen. Journal of Applied Physics, 2008, 104, 013908.	1.1	9
78	Effect of interfacial oxidation layer in spin pumping experiments on Ni80Fe20/SrIrO3 heterostructures. Journal of Applied Physics, 2020, 128, .	1.1	9
79	Pseudogap and Superconducting Gap in YBa2Cu3o6+x: A Raman Study. Journal of Low Temperature Physics, 1999, 117, 347-351.	0.6	8
80	Untangling the contributions of cerium and iron to the magnetism of Ce-doped yttrium iron garnet. Applied Physics Letters, 2016, 108, .	1.5	8
81	Printed Thin Diblock Copolymer Films with Dense Magnetic Nanostructure. ACS Applied Materials & Interfaces, 2019, 11, 21935-21945.	4.0	8
82	Controlling Domain-Wall Nucleation in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Ta</mml:mi></mml:math> / <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Co</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Fe</	1.5	8
83	Static magnetic proximity effects and spin Hall magnetoresistance in Pt/Y3Fe5O12 and inverted Y3Fe5O12/Pt bilayers. Physical Review B, 2020, 102, .	1.1	8
84	Spray-Deposited Anisotropic Ferromagnetic Hybrid Polymer Films of PS-b-PMMA and Strontium Hexaferrite Magnetic Nanoplatelets. ACS Applied Materials & Interfaces, 2021, 13, 1592-1602.	4.0	8
85	Separation of semiconducting and ferromagnetic FeSi2-nanoparticles by magnetic filtering. Journal of Applied Physics, 2013, 114, .	1.1	7
86	Lamellar Diblock Copolymer Films with Embedded Maghemite Nanoparticles. Advanced Materials Interfaces, 2016, 3, 1500712.	1.9	7
87	Influence of low-energy magnons on magnon Hanle experiments in easy-plane antiferromagnets. Physical Review B, 2022, 105, .	1.1	6
88	Effect of substrate on the electrical transport property of Ba2FeNbO6double perovskite thin films. Journal Physics D: Applied Physics, 2007, 40, 1430-1434.	1.3	5
89	Direct evidence for anisotropic three-dimensional magnetic excitations in a hole-doped antiferromagnet. Physical Review B, 2020, 102, .	1.1	5
90	Study of k-dependent electronic properties in cuprate superconductors using Raman spectroscopY. Journal of Physics and Chemistry of Solids, 1995, 56, 1841-1842.	1.9	4

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91	A-site dependent percolative thermopower and Griffiths phase in Pr(0.7â˜x)HoxSr0.3MnO3 (x=0.0, 0.04,) Tj ETQq1 1 0.784314 rgBT	1.1	4
92	Influence of disorder on the low and high temperature magnetization and magnetoresistance in Pr0.6 R0.1 Sr0.3 MnO3 (Râ€‰=â€‰Tb, Y, Ho and Er) manganite. Journal of Alloys and Compounds, 2007, 443, 7-10.	2.8	4
93	Structural, magnetic and electric behavior of the new Ba2TiMoO6 material. Physica B: Condensed Matter, 2012, 407, 3074-3077.	1.3	4
94	Surface distortion of Fe dot-decorated TiO2 nanotubular templates using time-of-flight grazing incidence small angle scattering. Scientific Reports, 2020, 10, 4038.	1.6	4
95	Precise control of Jeff=12 magnetic properties in Sr2IrO4 epitaxial thin films by variation of strain and thin film thickness. Physical Review B, 2020, 102, .	1.1	4
96	Raman Spectroscopy in YBa2Cu3O6+x and Bi2Sr2(CaxY1?x)Cu2O8+?: Pseudogap and Superconducting Gap. Physica Status Solidi (B): Basic Research, 1999, 215, 471-476.	0.7	3
97	Superconductivity of Calcium C60 Intercalation Compound Synthesized by Shock-Wave Pressure. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 376-380.	1.0	3
98	Improving the modelling of susceptibility-induced spatial distortions in MRI-guided extra-cranial radiotherapy. Physics in Medicine and Biology, 2019, 64, 205006.	1.6	3
99	Hydrogen and Magnetism in $Ga_{1-x}Mn_{x}As$. Advances in Solid State Physics, 2004, , 453-466.	0.8	3
100	In Situ Study of FePt Nanoparticlesâ€Induced Morphology Development during Printing of Magnetic Hybrid Diblock Copolymer Films. Advanced Functional Materials, 2022, 32, 2107667.	7.8	3
101	Pure spin current transport in gallium doped zinc oxide. Applied Physics Letters, 2017, 110, 052403.	1.5	2
102	Low-temperature suppression of the spin Nernst angle in Pt. Physical Review B, 2021, 104, .	1.1	2
103	Superconducting gap and pseudogap in Bi-2212. Physica B: Condensed Matter, 2000, 284-288, 669-670.	1.3	1
104	PO-1004 Simulation of tissue dependent magnetic field susceptibility effects in MRI guided radiotherapy. Radiotherapy and Oncology, 2019, 133, S554-S555.	0.3	1
105	Revealing the effect of interstitial oxygen on the low-energy crystal electric field excitations of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Pr</mml:mi></mml:mrow><mml:mrow><mml:mn mathvariant="italic">3</mml:mn></mml:mrow></mml:msup></mml:math> in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn mathvariant="italic">214</mml:mn></mml:math> nickelates. Physical Review B, 2022, 105, .	1.1	1
106	A study of critical and thermal pair breaking in differently doped Cuâ˜O superconductors by electronic Raman scattering. European Physical Journal D, 1996, 46, 1107-1108.	0.4	0
107	A light-scattering study of dynamical carrier properties in cuprate systems. Ferroelectrics, 2001, 249, 155-164.	0.3	0
108	Hydrogen and Magnetism in Ga1-xMnxAs. ChemInform, 2006, 37, no.	0.1	0

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109	TEM studies of cobalt-doped zinc oxide films. , 0, , 623-624.		0