

# Matthias Opel

## List of Publications by Citations

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102  
papers

4,283  
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35  
h-index

64  
g-index

113  
ext. papers

4,767  
ext. citations

3.8  
avg, IF

4.97  
L-index

#	Paper	IF	Citations
102	Spin Hall magnetoresistance induced by a nonequilibrium proximity effect. <i>Physical Review Letters</i> , <b>2013</b> , 110, 206601	7.4	677
101	Quantitative study of the spin Hall magnetoresistance in ferromagnetic insulator/normal metal hybrids. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	346
100	Local charge and spin currents in magnetothermal landscapes. <i>Physical Review Letters</i> , <b>2012</b> , 108, 106602.	7.4	197
99	Electric field controlled manipulation of the magnetization in Ni/BaTiO <sub>3</sub> hybrid structures. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 142509	3.4	147
98	Voltage controlled inversion of magnetic anisotropy in a ferromagnetic thin film at room temperature. <i>New Journal of Physics</i> , <b>2009</b> , 11, 013021	2.9	132
97	Pseudogap and Superconducting Gap in the Electronic Raman Spectra of Underdoped Cuprates. <i>Physical Review Letters</i> , <b>1997</b> , 78, 4837-4840	7.4	124
96	Epitaxial Zn <sub>x</sub> Fe <sub>3-x</sub> O <sub>4</sub> thin films: A spintronic material with tunable electrical and magnetic properties. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	122
95	Carrier relaxation, pseudogap, and superconducting gap in high-T <sub>c</sub> cuprates: A Raman scattering study. <i>Physical Review B</i> , <b>2000</b> , 61, 9752-9774	3.3	110
94	Investigation of induced Pt magnetic polarization in Pt/Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> bilayers. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 262407	3.4	102
93	Spintronic oxides grown by laser-MBE. <i>Journal Physics D: Applied Physics</i> , <b>2012</b> , 45, 033001	3	97
92	In situ manipulation of magnetic anisotropy in magnetite thin films. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	93
91	Spin Hall magnetoresistance in antiferromagnet/heavy-metal heterostructures. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	85
90	Advanced spectroscopic synchrotron techniques to unravel the intrinsic properties of dilute magnetic oxides: the case of Co:ZnO. <i>New Journal of Physics</i> , <b>2010</b> , 12, 013020	2.9	82
89	Magnetic and structural properties of Ge <sub>x</sub> Mn <sub>1-x</sub> films: Precipitation of intermetallic nanomagnets. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	77
88	Spin-glass-like behavior of Ge:Mn. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	74
87	Temperature dependent spin transport properties of platinum inferred from spin Hall magnetoresistance measurements. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 242411	3.4	69
86	Hydrogen control of ferromagnetism in a dilute magnetic semiconductor. <i>Physical Review Letters</i> , <b>2004</b> , 92, 227202	7.4	69

85	Hall effect, magnetization, and conductivity of Fe <sub>3</sub> O <sub>4</sub> epitaxial thin films. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 4980-4982	3-4	69
84	Ga <sub>1-x</sub> Mn <sub>x</sub> As/piezoelectric actuator hybrids: A model system for magnetoelastic magnetization manipulation. <i>Physical Review B</i> , <b>2008</b> , 78,	3-3	68
83	A-site-disorder-dependent percolative transport and Griffiths phase in doped manganites. <i>Physical Review B</i> , <b>2004</b> , 70,	3-3	56
82	Spin Hall magnetoresistance in a canted ferrimagnet. <i>Physical Review B</i> , <b>2016</b> , 94,	3-3	55
81	Nanosized superparamagnetic precipitates in cobalt-doped ZnO. <i>European Physical Journal B</i> , <b>2008</b> , 63, 437-444	1-2	55
80	Observation of an unconventional metal-insulator transition in overdoped CuO <sub>2</sub> compounds. <i>Physical Review Letters</i> , <b>2002</b> , 89, 107003	7-4	54
79	Anomalous Hall effect in YIG/Pt bilayers. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 132402	3-4	53
78	X-ray magnetic circular dichroism study of Re 5d magnetism in Sr <sub>2</sub> CrReO <sub>6</sub> . <i>Applied Physics Letters</i> , <b>2005</b> , 87, 202503	3-4	52
77	Study of magnetic properties of A <sub>2</sub> B <sub>2</sub> NbO <sub>6</sub> (A=Ba,Sr,BaSr; and B <sub>2</sub> =Fe and Mn) double perovskites. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 7528-7530	2-5	47
76	Physical origin of the buckling in CuO <sub>2</sub> : Electron-phonon coupling and Raman spectra. <i>Physical Review B</i> , <b>1999</b> , 60, 9836-9844	3-3	47
75	Laser molecular beam epitaxy of ZnO thin films and heterostructures. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 034002	3	46
74	Anomalous Hall effect in magnetite: Universal scaling relation between Hall and longitudinal conductivity in low-conductivity ferromagnets. <i>Physical Review B</i> , <b>2008</b> , 78,	3-3	46
73	Novel multifunctional materials based on oxide thin films and artificial heteroepitaxial multilayers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2011</b> , 208, 232-251	1-6	41
72	Magnetic interference patterns in 0 $\pi$ superconductor/insulator/ferromagnet/superconductor Josephson junctions: Effects of asymmetry between 0 and $\pi$ regions. <i>Physical Review B</i> , <b>2010</b> , 81,	3-3	41
71	Converse magnetoelectric effects in Fe <sub>3</sub> O <sub>4</sub> /BaTiO <sub>3</sub> multiferroic hybrids. <i>Physical Review B</i> , <b>2013</b> , 88,	3-3	38
70	Piezo-voltage control of magnetization orientation in a ferromagnetic semiconductor. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2008</b> , 2, 96-98	2-5	35
69	Doping dependence of the electronic Raman spectra in cuprates. <i>Journal of Physics and Chemistry of Solids</i> , <b>2002</b> , 63, 2345-2348	3-9	35
68	Low Temperature Properties and Superconductivity of LuB <sub>12</sub> . <i>Journal of Low Temperature Physics</i> , <b>2005</b> , 140, 339-353	1-3	35

67	Epitaxy of Fe <sub>3</sub> O <sub>4</sub> on Si(001) by pulsed laser deposition using a TiN/MgO buffer layer. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 1857-1863	2.5	32
66	Magnetic moments of W 5d in Ca <sub>2</sub> CrWO <sub>6</sub> and Sr <sub>2</sub> CrWO <sub>6</sub> double perovskites. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	31
65	Nano- and microstructures of magnetic field-guided maghemite nanoparticles in diblock copolymer films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 5244-54	9.5	29
64	Giant magnetic anisotropy changes in Sr <sub>2</sub> CrReO <sub>6</sub> thin films on BaTiO <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2009</b> , 95, 062508	3.4	28
63	All oxide ferromagnet/semiconductor epitaxial heterostructures. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 162510	3.4	28
62	Zinc oxide from dilute magnetic doping to spin transport. <i>Physica Status Solidi (B): Basic Research</i> , <b>2014</b> , 251, 1700-1709	1.3	26
61	Electrically detected ferromagnetic resonance. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 162507	3.4	26
60	Epitaxial growth and transport properties of Sr <sub>2</sub> CrWO <sub>6</sub> thin films. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 6853-6855	2.5	26
59	Arrangement of Maghemite Nanoparticles via Wet Chemical Self-Assembly in PS-b-PNIPAM Diblock Copolymer Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 13080-91	9.5	25
58	Spin transport and spin dephasing in zinc oxide. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 082404	3.4	24
57	wave superconductivity: Analysis of the electronic Raman data of and other cuprates. <i>European Physical Journal B</i> , <b>1998</b> , 5, 495-503	1.2	23
56	Multiferroic materials based on artificial thin film heterostructures. <i>Philosophical Magazine Letters</i> , <b>2007</b> , 87, 141-154	1	23
55	Electronic Raman scattering in CuO <sub>2</sub> superconductors. <i>Journal of Low Temperature Physics</i> , <b>1996</b> , 105, 733-742	1.3	22
54	Enhanced electron-phonon coupling and its irrelevance to high T superconductivity. <i>Solid State Communications</i> , <b>1998</b> , 108, 407-411	1.6	21
53	Large Spin Hall Magnetoresistance in Antiferromagnetic He <sub>2</sub> O <sub>3</sub> /Pt Heterostructures. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	20
52	Orbital order and anisotropic transport properties in doped manganites induced by epitaxial coherency strain. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 7373-7375	2.5	20
51	Ferromagnetism in Mn-doped ZnO due to impurity bands. <i>Superlattices and Microstructures</i> , <b>2005</b> , 37, 327-332	2.8	20
50	Ferromagnetism in epitaxial Zn <sub>0.95</sub> Co <sub>0.05</sub> O films grown on ZnO and Al <sub>2</sub> O <sub>3</sub> . <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2006</b> , 203, 3581-3596	1.6	19

49	Observation of Antiferromagnetic Magnon Pseudospin Dynamics and the Hanle Effect. <i>Physical Review Letters</i> , <b>2020</b> , 125, 247204	7.4	17
48	Printed Thin Magnetic Films Based on Diblock Copolymer and Magnetic Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 2982-2991	9.5	17
47	Self-assembly of diblock copolymer-maghemite nanoparticle hybrid thin films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 18152-62	9.5	17
46	Epitaxial growth and magnetic properties of Sr <sub>2</sub> CrReO <sub>6</sub> thin films. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2009</b> , 321, 2001-2004	2.8	17
45	Magnetocrystalline anisotropy and magnetization reversal in Ga <sub>1-x</sub> MnxP synthesized by ion implantation and pulsed-laser melting. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	17
44	Ferroelectric and magnetic properties of Ho <sub>2</sub> CuTiO <sub>6</sub> double perovskite. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2006</b> , 303, e332-e334	2.8	15
43	Electronic Raman scattering in copper-oxide superconductors and related compounds <b>1996</b> ,		15
42	Phonon anomalies in FeS. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	13
41	Magnetoresistance and Magnetic Properties of the Double Perovskites. <i>Acta Physica Polonica A</i> , <b>2004</b> , 105, 7-26	0.6	13
40	Structural and magnetic properties of cobalt iron disulfide (CoFeS) nanocrystals. <i>Scientific Reports</i> , <b>2018</b> , 8, 4835	4.9	12
39	Giant magnetoelastic effects in BaTiO <sub>3</sub> -based extrinsic multiferroic hybrids. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	12
38	Superconductivity of C <sub>60</sub> fullerite intercalated with Ca by means of shock-wave pressure technique. <i>Chemical Physics Letters</i> , <b>2008</b> , 457, 74-77	2.5	12
37	Unambiguous determination of spin dephasing times in ZnO by time-resolved magneto-optical pump-probe experiments. <i>Physica Status Solidi (B): Basic Research</i> , <b>2014</b> , 251, 1861-1871	1.3	11
36	Spray-Coating Magnetic Thin Hybrid Films of PS-b-PNIPAM and Magnetite Nanoparticles. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808427	15.6	11
35	Spin Hall magnetoresistance in antiferromagnetic insulators. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 2439025	10.5	10
34	Production and characterization of long-term stable superparamagnetic iron oxide-shell silica-core nanocomposites. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2017</b> , 442, 497-503	2.8	10
33	Pseudogap and superconducting gap in the electronic Raman spectra of underdoped cuprates. <i>Journal of Physics and Chemistry of Solids</i> , <b>1998</b> , 59, 1942-1946	3.9	10
32	Epitaxial growth of electron doped double perovskites LaxA <sub>2-x</sub> CrWO <sub>6</sub> with A=Sr and Ca. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2005</b> , 290-291, 1154-1157	2.8	10

31	Magnetic nanoparticle-containing soft-hard diblock copolymer films with high order. <i>Nanoscale</i> , <b>2018</b> , 10, 11930-11941	7.7	9
30	Role of interface quality for the spin Hall magnetoresistance in nickel ferrite thin films with bulk-like magnetic properties. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 092403	3.4	8
29	Magnetic excitations and amplitude fluctuations in insulating cuprates. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	8
28	Suppression of hole-mediated ferromagnetism in Ga <sub>1-x</sub> MnxP by hydrogen. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 013908	2.5	8
27	Printed Thin Diblock Copolymer Films with Dense Magnetic Nanostructure. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 21935-21945	9.5	7
26	Pseudogap and Superconducting Gap in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6+x</sub> : A Raman Study. <i>Journal of Low Temperature Physics</i> , <b>1999</b> , 117, 347-351	1.3	7
25	Lamellar Diblock Copolymer Films with Embedded Maghemite Nanoparticles. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1500712	4.6	7
24	Untangling the contributions of cerium and iron to the magnetism of Ce-doped yttrium iron garnet. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 102407	3.4	7
23	Self-Assembly of Large Magnetic Nanoparticles in Ultrahigh Molecular Weight Linear Diblock Copolymer Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 7557-7564	9.5	6
22	Separation of semiconducting and ferromagnetic FeSi <sub>2</sub> -nanoparticles by magnetic filtering. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 134308	2.5	5
21	Effect of substrate on the electrical transport property of Ba <sub>2</sub> FeNbO <sub>6</sub> double perovskite thin films. <i>Journal Physics D: Applied Physics</i> , <b>2007</b> , 40, 1430-1434	3	5
20	Static magnetic proximity effects and spin Hall magnetoresistance in Pt/Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> and inverted Y <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> /Pt bilayers. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	5
19	Influence of disorder on the low and high temperature magnetization and magnetoresistance in Pr <sub>0.6</sub> R <sub>0.1</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> (R = Tb, Y, Ho and Er) manganite. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 443, 7-10	5.7	4
18	A-site dependent percolative thermopower and Griffiths phase in Pr(0.7-x)Ho <sub>x</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> (x=0.0, 0.04, 0.08, and 0.1). <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 10H713	2.5	4
17	Spray-Deposited Anisotropic Ferromagnetic Hybrid Polymer Films of PS-PMMA and Strontium Hexaferrite Magnetic Nanoplatelets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 1592-1602	9.5	4
16	Effect of interfacial oxidation layer in spin pumping experiments on Ni <sub>80</sub> Fe <sub>20</sub> /SrIrO <sub>3</sub> heterostructures. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 083903	2.5	4
15	Quantifying the spin mixing conductance of EuO/W heterostructures by spin Hall magnetoresistance experiments. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 192401	3.4	4
14	Improving the modelling of susceptibility-induced spatial distortions in MRI-guided extra-cranial radiotherapy. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 205006	3.8	3

13	Raman Spectroscopy in $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ and $\text{Bi}_2\text{Sr}_2(\text{Ca}_x\text{Y}_{1-x})\text{Cu}_2\text{O}_8$ Pseudogap and Superconducting Gap. <i>Physica Status Solidi (B): Basic Research</i> , <b>1999</b> , 215, 471-476	1.3	3
12	Study of k-dependent electronic properties in cuprate superconductors using Raman spectroscopy. <i>Journal of Physics and Chemistry of Solids</i> , <b>1995</b> , 56, 1841-1842	3.9	3
11	Controlling Domain-Wall Nucleation in Ta/Co-Fe-B/MgO Nanomagnets via Local Ga <sup>+</sup> Ion Irradiation. <i>Physical Review Applied</i> , <b>2021</b> , 16,	4.3	3
10	Pure spin current transport in gallium doped zinc oxide. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 052403	3.4	2
9	Surface distortion of Fe dot-decorated TiO nanotubular templates using time-of-flight grazing incidence small angle scattering. <i>Scientific Reports</i> , <b>2020</b> , 10, 4038	4.9	2
8	Superconductivity of Calcium C60 Intercalation Compound Synthesized by Shock-Wave Pressure. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , <b>2010</b> , 18, 376-380	1.8	2
7	Structural, magnetic and electric behavior of the new $\text{Ba}_2\text{TiMoO}_6$ material. <i>Physica B: Condensed Matter</i> , <b>2012</b> , 407, 3074-3077	2.8	1
6	In Situ Study of FePt Nanoparticles-Induced Morphology Development during Printing of Magnetic Hybrid Diblock Copolymer Films. <i>Advanced Functional Materials</i> , 2107667	15.6	0
5	Nanosession: Multiferroic Thin Films and Heterostructures <b>2013</b> , 323-334		
4	A light-scattering study of dynamical carrier properties in cuprate systems. <i>Ferroelectrics</i> , <b>2001</b> , 249, 155-164	0.6	
3	A study of critical and thermal pair breaking in differently doped $\text{CuO}$ superconductors by electronic Raman scattering. <i>European Physical Journal D</i> , <b>1996</b> , 46, 1107-1108		
2	TEM studies of cobalt-doped zinc oxide films 623-624		
1	Nanosession: Spin Dynamics 291-300		