

# Daniel Spemann

## List of Publications by Year in descending order

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85  
papers

5,881  
citations

136740

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h-index

71532

76  
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86  
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86  
docs citations

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times ranked

6830  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deterministic Shallow Dopant Implantation in Silicon with Detection Confidence Upper Bound to 99.85% by Ion-Solid Interactions. <i>Advanced Materials</i> , 2022, 34, e2103235.	11.1	16
2	Deterministic Shallow Dopant Implantation in Silicon with Detection Confidence Upper Bound to 99.85% by Ion-Solid Interactions (Adv. Mater. 3/2022). <i>Advanced Materials</i> , 2022, 34, .	11.1	1
3	Properties of gallium oxide thin films grown by ion beam sputter deposition at room temperature. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, .	0.9	2
4	Image charge detection of ion bunches using a segmented, cryogenic detector. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	4
5	Vacancy diffusion and nitrogen-vacancy center formation near the diamond surface. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	9
6	Characterization of an RF excited broad beam ion source operating with inert gases. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	5
7	Toward a systematic discovery of artificial functional magnetic materials. <i>Physical Review B</i> , 2021, 104, .	1.1	5
8	Defect-Induced Magnetism in Nonmagnetic Oxides: Basic Principles, Experimental Evidence, and Possible Devices with ZnO and TiO <sub>2</sub> . <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900623.	0.7	26
9	Titanium 3d ferromagnetism with perpendicular anisotropy in defective anatase. <i>Physical Review B</i> , 2020, 101, .	1.1	10
10	Nanoscale ion implantation using focussed highly charged ions. <i>New Journal of Physics</i> , 2020, 22, 083028.	1.2	10
11	Image charge detection statistics relevant for deterministic ion implantation. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 305103.	1.3	11
12	Ion beam sputter deposition of TiO <sub>2</sub> films using oxygen ions. <i>European Physical Journal B</i> , 2018, 91, 1.	0.6	10
13	Detection of small bunches of ions using image charges. <i>Scientific Reports</i> , 2018, 8, 9781.	1.6	26
14	Graphene on silicon dioxide via carbon ion implantation in copper with PMMA-free transfer. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	4
15	Advanced Electric Propulsion Diagnostic Tools at IOM. <i>Procedia Engineering</i> , 2017, 185, 1-8.	1.2	3
16	Modelling of a radio frequency plasma bridge neutralizer (RFPBN). <i>Procedia Engineering</i> , 2017, 185, 9-16.	1.2	6
17	Systematic investigation of the properties of TiO <sub>2</sub> films grown by reactive ion beam sputter deposition. <i>Applied Surface Science</i> , 2017, 421, 331-340.	3.1	37
18	Strong out-of-plane magnetic anisotropy in ion irradiated anatase TiO <sub>2</sub> thin films. <i>AIP Advances</i> , 2016, 6, 125009.	0.6	16

#	ARTICLE	IF	CITATIONS
19	Identification of a possible superconducting transition above room temperature in natural graphite crystals. <i>New Journal of Physics</i> , 2016, 18, 113041.	1.2	51
20	Evidence for Magnetic Order in Graphite from Magnetization and Transport Measurements. <i>Springer Series in Materials Science</i> , 2016, , 45-76.	0.4	4
21	Local zincblende coordination in heteroepitaxial wurtzite Zn <sub>1-x</sub> Mg <sub>x</sub> O:Mn thin films with 0.01 ≤ x ≤ 0.04 identified by electron paramagnetic resonance. <i>Journal of Materials Chemistry C</i> , 2015, 3, 11918-11929.	2.7	2
22	Magnetic order and superconductivity observed in bundles of double-wall carbon nanotubes. <i>Carbon</i> , 2015, 88, 16-25.	5.4	24
23	Topological insulator thin films starting from the amorphous phase-Bi <sub>2</sub> Se <sub>3</sub> as example. <i>Journal of Applied Physics</i> , 2015, 117, 075301.	1.1	16
24	Single atom devices by ion implantation. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 154204.	0.7	61
25	Study of the negative magneto-resistance of single proton-implanted lithium-doped ZnO microwires. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 256002.	0.7	8
26	Trace element content and magnetic properties of commercial HOPG samples studied by ion beam microscopy and SQUID magnetometry. <i>AIP Advances</i> , 2014, 4, 107142.	0.6	23
27	Silicide induced ion beam patterning of Si(001). <i>Nanotechnology</i> , 2014, 25, 115303.	1.3	40
28	Myelin and iron concentration in the human brain: A quantitative study of MRI contrast. <i>NeuroImage</i> , 2014, 93, 95-106.	2.1	528
29	A quantitative study of the intracellular concentration of graphene/noble metal nanoparticle composites and their cytotoxicity. <i>Nanoscale</i> , 2014, 6, 8535-8542.	2.8	66
30	Local lattice distortions in oxygen deficient Mn-doped ZnO thin films, probed by electron paramagnetic resonance. <i>Journal of Materials Chemistry C</i> , 2014, 2, 4947.	2.7	30
31	Defect-Induced Magnetism in Solids. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 4668-4674.	1.2	87
32	Defect-induced magnetism in homoepitaxial manganese-stabilized zirconia thin films. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 275002.	1.3	17
33	Comment on "Revealing common artifacts due to ferromagnetic inclusions in highly oriented pyrolytic graphite" by Sepioni M. et al. <i>Europhysics Letters</i> , 2012, 98, 57006.	0.7	12
34	Electrical transport in strained Mg <sub>1-x</sub> Zn <sub>x</sub> O:P thin films grown by pulsed laser deposition on ZnO(0001). <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 82-90.	0.7	4
35	Hydrogen-mediated ferromagnetism in ZnO single crystals. <i>New Journal of Physics</i> , 2011, 13, 063017.	1.2	40
36	Materials analysis and modification at LIPSION " Present state and future developments. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2011, 269, 2175-2179.	0.6	20

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37	Magnetic order in graphite: Experimental evidence, intrinsic and extrinsic difficulties. Journal of Magnetism and Magnetic Materials, 2010, 322, 1156-1161.	1.0	48
38	The role of hydrogen in room-temperature ferromagnetism at graphite surfaces. New Journal of Physics, 2010, 12, 123012.	1.2	101
39	Low-energy and SQUID evidence of magnetism in highly oriented pyrolytic graphite. Journal of Magnetism and Magnetic Materials, 2010, 322, 1228-1231.	1.0	11
40	Magnetic order in proton irradiated graphite: Curie temperatures and magnetoresistance effect. Journal of Nuclear Materials, 2009, 389, 336-340.	1.3	9
41	Defect-induced magnetic order in pure ZnO films. Physical Review B, 2009, 80, .	1.1	274
42	The influence of iron, fluorine and boron implantation on the magnetic properties of graphite. Journal of Magnetism and Magnetic Materials, 2008, 320, 966-977.	1.0	23
43	Creation of GaAs microstructures using the nuclear nanoprobe LIPSION. Semiconductor Science and Technology, 2008, 23, 125028.	1.0	8
44	Experimental evidence for two-dimensional magnetic order in proton bombarded graphite. Physical Review B, 2007, 76, .	1.1	112
45	Ï€-Electron Ferromagnetism in Metal-Free Carbon Probed by Soft X-Ray Dichroism. Physical Review Letters, 2007, 98, 187204.	2.9	258
46	Electrical and magnetic properties of RE-doped ZnO thin films (RE = Gd, Nd). Superlattices and Microstructures, 2007, 42, 231-235.	1.4	71
47	Possible pitfalls in search of magnetic order in thin films deposited on single crystalline sapphire substrates. Journal of Magnetism and Magnetic Materials, 2007, 317, 53-60.	1.0	40
48	Optical and structural properties of MgZnO/ZnO hetero- and double heterostructures grown by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2007, 88, 99-104.	1.1	31
49	Electronic band gap of Zn <sub>2</sub> (CuIn) <sub>1-x</sub> solid solution series (X=S, Se, Te). Journal of Alloys and Compounds, 2006, 414, 26-30.	2.8	42
50	Growth of highly oriented graphite films at room temperature by pulsed laser deposition using carbon-sulfur targets. Carbon, 2006, 44, 3064-3072.	5.4	17
51	Room-temperature ferromagnetic Mn-alloyed ZnO films obtained by pulsed laser deposition. Journal of Magnetism and Magnetic Materials, 2006, 307, 212-221.	1.0	38
52	Deep defects generated in n-conducting ZnO:TM thin films. Solid State Communications, 2006, 137, 417-421.	0.9	14
53	Proton irradiation effects and magnetic order in carbon structures. Thin Solid Films, 2006, 505, 85-89.	0.8	10
54	Magnetoresistance in pulsed laser deposited 3d transition metal doped ZnO films. Thin Solid Films, 2006, 515, 2549-2554.	0.8	20

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55	Weak ferromagnetism in textured Zn <sub>1-x</sub> (TM) <sub>x</sub> O thin films. Superlattices and Microstructures, 2006, 39, 334-339.	1.4	14
56	Refractive indices and band-gap properties of rocksalt Mg <sub>x</sub> Zn <sub>1-x</sub> O (0.68 ≤ x ≤ 1). Journal of Applied Physics, 2006, 99, 123701.	1.1	55
57	Magnetism in Carbon: Writing Magnetic Structures with a Proton Micro-Beam on Graphite Surfaces. Acta Physica Polonica A, 2006, 109, 249-255.	0.2	1
58	Morphological and elemental characterisation with the high-energy ion-nanoprobe LIPSION. Applied Surface Science, 2005, 252, 43-48.	3.1	8
59	The two-phase region in 2(ZnSe) <sub>x</sub> (CuInSe <sub>2</sub> ) <sub>1-x</sub> alloys and structural relation between the tetragonal and cubic phases. Journal of Solid State Chemistry, 2005, 178, 3631-3638.	1.4	21
60	UV optical properties of ferromagnetic Mn-doped ZnO thin films grown by PLD. Thin Solid Films, 2005, 486, 117-121.	0.8	66
61	The Role of Nuclear Nanoprobes in Inducing Magnetic Ordering in Graphite. Hyperfine Interactions, 2005, 160, 27-37.	0.2	5
62	BIOMEDICAL IMAGING WITH THE LEIPZIG HIGH-ENERGY ION-NANOPROBE LIPSION. International Journal of PIXE, 2005, 15, 125-130.	0.4	0
63	Examples of room-temperature magnetic ordering in carbon-based structures. Phase Transitions, 2005, 78, 155-171.	0.6	10
64	Mg <sub>x</sub> Zn <sub>1-x</sub> O (0 ≤ x < 0.2) nanowire arrays on sapphire grown by high-pressure pulsed-laser deposition. Applied Physics Letters, 2005, 86, 143113.	1.5	188
65	Magnetic carbon: Explicit evidence of ferromagnetism induced by proton irradiation. Carbon, 2004, 42, 1213-1218.	5.4	49
66	Ion-beam analysis of CuInSe <sub>2</sub> solar cells deposited on polyimide foil. Analytical and Bioanalytical Chemistry, 2004, 379, 622-7.	1.9	7
67	Lattice parameter and elastic constants of cubic Zn <sub>1-x</sub> Mn <sub>x</sub> Se epilayers grown by molecular-beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 649-652.	0.8	15
68	Intrinsic carbon doping of (AlGa)As for (InGa)As laser structures (Γ <sub>8</sub> band). Journal of Crystal Growth, 2004, 272, 642-649.	0.7	3
69	Infrared dielectric function and phonon modes of Mg-rich cubic Mg <sub>x</sub> Zn <sub>1-x</sub> O (x ≈ 0.67) thin films on sapphire (0001). Applied Physics Letters, 2004, 85, 905-907.	1.5	29
70	Induced Magnetic Ordering by Proton Irradiation in Graphite. Physical Review Letters, 2003, 91, 227201.	2.9	759
71	Ferromagnetic Spots in Graphite Produced by Proton Irradiation. Advanced Materials, 2003, 15, 1719-1722.	11.1	140
72	Observation of intrinsic magnetic domains in C <sub>60</sub> polymer. Carbon, 2003, 41, 785-795.	5.4	69

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73	Addendum to "Observation of intrinsic magnetic domains in C60 polymers" Carbon, 2003, 41, 2425-2426.	5.4	18
74	Dielectric properties of Fe-doped $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ thin films on polycrystalline substrates at temperatures between $-35$ and $+85$ °C. Solid-State Electronics, 2003, 47, 2199-2203.	0.8	24
75	Optical and electrical properties of epitaxial $(\text{Mg,Cd})_{1-x}\text{Zn}_x\text{O}$ , ZnO, and ZnO:(Ga,Al) thin films on c-plane sapphire grown by pulsed laser deposition. Solid-State Electronics, 2003, 47, 2205-2209.	0.8	140
76	Infrared dielectric functions and phonon modes of high-quality ZnO films. Journal of Applied Physics, 2003, 93, 126-133.	1.1	590
77	Dielectric functions (1 to 5 eV) of wurtzite $\text{Mg}_{1-x}\text{Zn}_x\text{O}$ ( $x=0.29$ ) thin films. Applied Physics Letters, 2003, 82, 2260-2262.	1.5	165
78	Raman scattering in ZnO thin films doped with Fe, Sb, Al, Ga, and Li. Applied Physics Letters, 2003, 83, 1974-1976.	1.5	595
79	Infrared dielectric functions and phonon modes of wurtzite $\text{Mg}_{1-x}\text{Zn}_x\text{O}$ ( $x=0.2$ ). Applied Physics Letters, 2002, 81, 2376-2378.	1.5	65
80	Ferromagnetism in oriented graphite samples. Physical Review B, 2002, 66, .	1.1	352
81	Non-destructive 3D-characterization of $\text{Zn}_{1-2x}\text{Cu}_x\text{In}_x\text{S}_2$ -thin films with ion beam analysis. Analytical and Bioanalytical Chemistry, 2002, 374, 626-630.	1.9	1
82	The Leipzig high-energy ion nanoprobe: A report on first results. Nuclear Instruments & Methods in Physics Research B, 2000, 161-163, 323-327.	0.6	52
83	Solid State Analysis with the New Leipzig High-Energy Ion Nanoprobe. Mikrochimica Acta, 2000, 133, 105-111.	2.5	18
84	Combination of Micro-PIXE with the Pattern Recognition Technique for the Source Identification of Individual Aerosol Particles. Applied Spectroscopy, 2000, 54, 807-811.	1.2	10
85	Source Identification of Lead Pollution in the Atmosphere of Shanghai City by Analyzing Single Aerosol Particles (SAP). Environmental Science & Technology, 2000, 34, 1900-1905.	4.6	51