Bernd Beschoten

List of Publications by Year
in descending order

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97 papers	7,958 citations	136740 32 h-index	53109 85 g-index
100 all docs	100 docs citations	100 times ranked	8046 citing authors

#	Article	IF	Citations
1	Electrical spin injection in a ferromagnetic semiconductor heterostructure. Nature, 1999, 402, 790-792.	13.7	2,315
2	Ultrahigh-mobility graphene devices from chemical vapor deposition on reusable copper. Science Advances, 2015, 1, e1500222.	4.7	635
3	Domain state model for exchange bias.â€,I.â€,Theory. Physical Review B, 2002, 66, .	1.1	420
4	Diluted Antiferromagnets in Exchange Bias: Proof of the Domain State Model. Physical Review Letters, 2000, 84, 4224-4227.	2.9	392
5	Raman spectroscopy as probe of nanometre-scale strain variations in graphene. Nature Communications, 2015, 6, 8429.	5.8	341
6	Magnetic Circular Dichroism Studies of Carrier-Induced Ferromagnetism in(Ga1â^'xMnx)As. Physical Review Letters, 1999, 83, 3073-3076.	2.9	258
7	Domain state model for exchange bias.â€,II.â€,Experiments. Physical Review B, 2002, 66, .	1.1	246
8	Graphene spintronics: the European Flagship perspective. 2D Materials, 2015, 2, 030202.	2.0	243
9	Ballistic Transport Exceeding 28 Î¼m in CVD Grown Graphene. Nano Letters, 2016, 16, 1387-1391.	4.5	240
10	Observation of Long Spin-Relaxation Times in Bilayer Graphene at Room Temperature. Physical Review Letters, 2011, 107, 047206.	2.9	235
11	Toward Wafer Scale Fabrication of Graphene Based Spin Valve Devices. Nano Letters, 2011, 11, 2363-2368.	4.5	214
12	Spin Lifetimes Exceeding 12 ns in Graphene Nonlocal Spin Valve Devices. Nano Letters, 2016, 16, 3533-3539.	4.5	214
13	Origin of high-temperature ferromagnetism in (Ga,Mn)N layers grown on 4Hâ€“SiC(0001) by reactive molecular-beam epitaxy. Applied Physics Letters, 2003, 82, 2077-2079.	1.5	197
14	Spin coherence and dephasing in GaN. Physical Review B, 2001, 63, .	1.1	190
15	Nanosecond Spin Lifetimes in Single- and Few-Layer Grapheneâ€“hBN Heterostructures at Room Temperature. Nano Letters, 2014, 14, 6050-6055.	4.5	149
16	Gd-doped GaN: A very dilute ferromagnetic semiconductor with a Curie temperature above 300 K. Physical Review B, 2005, 72, .	1.1	132
17	Scaling behavior at the insulator-metal transition inBi2Sr2(CazR1â^'z)Cu2O8+ywhereRis a rare-earth element. Physical Review B, 1992, 46, 11813-11825.	1.1	110
18	Identifying suitable substrates for high-quality graphene-based heterostructures. 2D Materials, 2017, 4, 025030.	2.0	83

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19	Role of MgO barriers for spin and charge transport in Co/MgO/graphene nonlocal spin-valve devices. Physical Review B, 2013, 88, .	1.1	71
20	Perpendicular exchange bias in antiferromagnetic-ferromagnetic nanostructures. Applied Physics Letters, 2004, 84, 3696-3698.	1.5	70
21	Limitations to Carrier Mobility and Phase-Coherent Transport in Bilayer Graphene. Physical Review Letters, 2014, 113, 126801.	2.9	55
22	Electric Field-Driven Coherent Spin Reorientation of Optically Generated Electron Spin Packets in InGaAs. Physical Review Letters, 2012, 109, 146603.	2.9	51
23	Electrical spin injection in ferromagnetic/nonmagnetic semiconductor heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 10, 489-492.	1.3	44
24	High mobility dry-transferred CVD bilayer graphene. Applied Physics Letters, 2017, 110, .	1.5	42
25	Growth, characterization, and transport properties of ternary (Bi_{1âˆ’x}Sb_x)₂Te₃topological insulator layers. Journal of Physics Condensed Matter, 2016, 28, 495501.	0.7	41
26	Intervalley dark trion states with spin lifetimes of 150 ns in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review B, 2017, 95, .	1.1	40
27	Observation of the Spin-Orbit Gap in Bilayer Graphene by One-Dimensional Ballistic Transport. Physical Review Letters, 2020, 124, 177701.	2.9	39
28	Zinc oxide â€“From dilute magnetic doping to spin transport. Physica Status Solidi (B): Basic Research, 2014, 251, 1700-1709.	0.7	37
29	Magneto-optical study of magnetization reversal asymmetry in exchange bias. Applied Physics Letters, 2006, 89, 202512.	1.5	36
30	Coexistence of Superconductivity and Localization inBi2Sr2(Caz,ÂPr1âˆ’z)Cu2O8+y. Physical Review Letters, 1996, 77, 1837-1840.	2.9	35
31	Training effect of the exchange bias in Co/CoO bilayers originates from the irreversible thermoremanent magnetization of the magnetically diluted antiferromagnet. Physical Review B, 2012, 85, .	1.1	35
32	Suppression of contact-induced spin dephasing in graphene/MgO/Co spin-valve devices by successive oxygen treatments. Physical Review B, 2014, 90, .	1.1	35
33	Exchange bias in epitaxialCoOâˆ•Cobilayers with different crystallographic symmetries. Physical Review B, 2007, 75, .	1.1	32
34	Role of structural defects on exchange bias in the epitaxial CoOâˆ•Co system. Applied Physics Letters, 2005, 87, 261903.	1.5	28
35	Crystalline phases in the GeSb2Te4 alloy system: Phase transitions and elastic properties. Journal of Applied Physics, 2007, 102, 093519.	1.1	28
36	Angular dependence and origin of asymmetric magnetization reversal in exchange-biased <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Fe</mml:mtext><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mtext>Fe</mml:mtext></mml:mrow></mml:msub></mml:mt> Physical Review B, 2008, 78, .	1.1	28

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37	Contact-induced charge contributions to non-local spin transport measurements in Co/MgO/graphene devices. 2D Materials, 2015, 2, 024001.	2.0	28
38	Spin States Protected from Intrinsic Electronâ€“Phonon Coupling Reaching 100 ns Lifetime at Room Temperature in MoSe2. Nano Letters, 2019, 19, 4083-4090.	4.5	27
39	Unveiling Valley Lifetimes of Free Charge Carriers in Monolayer WSe₂. Nano Letters, 2020, 20, 3147-3154.	4.5	27
40	Low B Field Magneto-Phonon Resonances in Single-Layer and Bilayer Graphene. Nano Letters, 2015, 15, 1547-1552.	4.5	26
41	Electrically Conducting Nanopatterns Formed by Chemical e-Beam Lithography via Gold Nanoparticle Seeds. Langmuir, 2012, 28, 2448-2454.	1.6	22
42	Fractional quantum Hall effect in CVD-grown graphene. 2D Materials, 2020, 7, 041007.	2.0	22
43	Interlayer coupling in Pb-substituted Bi2Sr2CaCu2O8+Î´ single crystals. Physica C: Superconductivity and Its Applications, 1996, 265, 194-200.	0.6	21
44	Spatial Control of Laser-Induced Doping Profiles in Graphene on Hexagonal Boron Nitride. ACS Applied Materials & Interfaces, 2016, 8, 9377-9383.	4.0	20
45	Interlayer coupling and the metal-insulator transition in Pr-substitutedBi2Sr2CaCu2O8+y. Physical Review B, 1995, 51, 11647-11655.	1.1	19
46	Structural and Magnetic Properties of Ni/NiOxide- and Co/CoOxide Core/Shell Nanoparticles and their possible Use for Ferrofluids. Zeitschrift Fur Physikalische Chemie, 2006, 220, 173-187.	1.4	19
47	Impact of Many-Body Effects on Landau Levels in Graphene. Physical Review Letters, 2018, 120, 187701.	2.9	18
48	Dry-transferred CVD graphene for inverted spin valve devices. Applied Physics Letters, 2017, 111, .	1.5	17
49	Quantum transport through MoS₂ constrictions defined by photodoping. Journal of Physics Condensed Matter, 2018, 30, 205001.	0.7	17
50	Energy-resolved electron spin dynamics at surfaces ofp-doped GaAs. Physical Review B, 2006, 73, .	1.1	16
51	Spin lifetime of (In,Ga)As/GaAs (110) quantum wells. Physica Status Solidi (B): Basic Research, 2007, 244, 2960-2970.	0.7	16
52	All-electrical time-resolved spin generation and spin manipulation in n-InGaAs. Applied Physics Letters, 2014, 104, .	1.5	15
53	Phase-coherent transport in catalyst-free vapor phase depositedBi2Se3crystals. Physical Review B, 2015, 92, .	1.1	14
54	Epitaxial growth of Fe on GaN(0001): structural and magnetic properties. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 754-757.	0.8	13

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55	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
56	From Diffusive to Ballistic Transport in Etched Graphene Constrictions and Nanoribbons. Annalen Der Physik, 2017, 529, 1700082.	0.9	13
57	Proximity-induced spin-orbit coupling in graphene/ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mrow><mml:mn>1.5</mml:mn> heterostructures. Physical Review B, 2018, 98, .	1.1	13
58	Domain state model for exchange bias: thickness dependence of diluted antiferromagnetic Co1âˆ’yO on exchange bias in Co/CoO. Journal of Magnetism and Magnetic Materials, 2002, 240, 248-250.	1.0	12
59	Anisotropic electron spin lifetime in(In,Ga)Asâˆ•GaAs(110) quantum wells. Physical Review B, 2007, 75, .	1.1	12
60	Domain state model for exchange bias: training effect of diluted Co/sub 1-y/O on exchange bias in Co-CoO. IEEE Transactions on Magnetics, 2002, 38, 2744-2746.	1.2	11
61	Two-Dimensional Optical Control of Electron Spin Orientation by Linearly Polarized Light in InGaAs. Physical Review Letters, 2010, 105, 246603.	2.9	11
62	Line shape of the Raman 2D peak of graphene in van der Waals heterostructures. Physica Status Solidi (B): Basic Research, 2016, 253, 2326-2330.	0.7	11
63	Spin and charge transport in graphene-based spin transport devices with Co/MgO spin injection and spin detection electrodes. Synthetic Metals, 2015, 210, 42-55.	2.1	10
64	Radially polarized light beams from spin-forbidden dark excitons and trions in monolayer WSe₂. Optical Materials Express, 2020, 10, 1273.	1.6	10
65	Influence of growth temperature on GaN:Cr incorporation and structural properties in MOVPE. Journal of Crystal Growth, 2009, 312, 1-9.	0.7	9
66	Electrical Control over Phonon Polarization in Strained Graphene. Nano Letters, 2021, 21, 2898-2904.	4.5	9
67	Zitterbewegung of Spin Split Electrons. JETP Letters, 2018, 108, 326-328.	0.4	8
68	How to solve problems in micro- and nanofabrication caused by the emission of electrons and charged metal atoms during e-beam evaporation. Journal Physics D: Applied Physics, 2021, 54, 225304.	1.3	8
69	Raman imaging of twist angle variations in twisted bilayer graphene at intermediate angles. 2D Materials, 2022, 9, 045009.	2.0	8
70	Domain State Model for Exchange Bias: Influence of Structural Defects on Exchange Bias in Co/CoO. , 2002, , 419-431.		7
71	CVD Bilayer Graphene Spin Valves with 26 Î¼m Spin Diffusion Length at Room Temperature. Nano Letters, 2022, 22, 4949-4955.	4.5	7
72	Hall mobility in DC-sputtered Bi2Sr2CaCu2O8+Î´ films as a function of in-situ controlled oxygen content. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1373-1374.	0.6	6

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73	Probing electronic lifetimes and phonon anharmonicities in high-quality chemical vapor deposited graphene by magneto-Raman spectroscopy. Applied Physics Letters, 2015, 107, 233105.	1.5	6
74	Dry transfer of CVD graphene using MoS₂â€based stamps. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700136.	1.2	6
75	Simulations on the Influence of Spatially Varying Spin Transport Parameters on the Measured Spin Lifetime in Graphene Non-Local Spin Valves. Physica Status Solidi (B): Basic Research, 2017, 254, 1700293.	0.7	6
76	Fermion-Fermion scattering in the Hall mobility of La-214 HTSC. Physica B: Condensed Matter, 1994, 194-196, 1519-1520.	1.3	5
77	Focused-ion-beam milling based nanostencil mask fabrication for spin transfer torque studies. Journal of Applied Physics, 2007, 101, 063920.	1.1	5
78	Nanosecond spin lifetimes in bottom-up fabricated bilayer graphene spin-valves with atomic layer deposited Al2O3 spin injection and detection barriers. Physica Status Solidi (B): Basic Research, 2015, 252, 2395-2400.	0.7	5
79	Reducing the Impact of Bulk Doping on Transport Properties of Biâ€Based 3D Topological Insulators. Physica Status Solidi (B): Basic Research, 2021, 258, 2000021.	0.7	5
80	Anderson-like insulator - metal transition in rare earth doped Bi2Sr2(Caz RE1 â^' z)Cu2O8 + y. Journal of Alloys and Compounds, 1993, 195, 375-378.	2.8	4
81	The growth of Cr-doped GaN by MOVPE towards spintronic applications. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 72-77.	0.8	4
82	Specific heat measurements across the metal-insulator transition in Bi2Sr2(CazRE1â^'z)Cu2O8 with RE=Y,Pr,NdandGd. Physica B: Condensed Matter, 1994, 194-196, 467-468.	1.3	3
83	Current-induced magnetization dynamics in single and double layer magnetic nanopillars grown by molecular beam epitaxy. Journal Physics D: Applied Physics, 2008, 41, 164011.	1.3	3
84	How Photoinduced Gate Screening and Leakage Currents Dynamically Change the Fermi Level in 2D Materials. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000298.	1.2	3
85	Charge-Induced Artifacts in Nonlocal Spin-Transport Measurements: How to Prevent Spurious Voltage Signals. Physical Review Applied, 2022, 18, .	1.5	3
86	Metal-insulator transition and electronic structure in Pr-doped Bi2Sr2(Caz, Pr1 â^' z)Cu2O8 + y. Physica B: Condensed Matter, 1996, 223-224, 519-521.	1.3	1
87	Time-resolved lateral spin-caloric transport of optically generated spin packets in n-GaAs. Journal Physics D: Applied Physics, 2018, 51, 214003.	1.3	1
88	Spin-Polarized Current Injection in Ferromagnetic Semiconductor Heterostructure. , 2000, , .		1
89	Electronic band structure of DC-sputtered Bi2Sr2CaCu2O8+Î´. Solid State Communications, 1995, 95, 85-89.	0.9	0
90	Magnetic field dependence of the Josephson coupling energy along the c-axis in Bi2Sr2CaCu2O8+y. Journal of Low Temperature Physics, 1996, 105, 1219-1224.	0.6	0

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91	Rare-earth-Cu interaction in high-temperature superconductors. Physica B: Condensed Matter, 1997, 230-232, 853-855.	1.3	0
92	Magnetismus auf Knopfdruck. Physik Journal, 2001, 57, 19-21.	0.1	0
93	Domain state model for exchange bias: training effect of diluted Co/sub 1-y/O on exchange bias in Co/CoO. , 0, , .		0
94	Graphen auf dem Weg zur Anwendung. Physik in Unserer Zeit, 2015, 46, 269-270.	0.0	0
95	SchmalbuchetÂal.Reply:. Physical Review Letters, 2016, 117, 139702.	2.9	0
96	Optically induced coherent voltage oscillations in K0.3MoO3. European Physical Journal Special Topics, 2002, 12, 303-306.	0.2	0
97	Triggering phase-coherent spin packets by pulsed electrical spin injection across an Fe/GaAs Schottky barrier. Physical Review B, 2021, 104, .	1.1	0