Timo Schumann

List of Publications by Year
in descending order

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39 papers	1,524 citations	361413 20 h-index	330143 37 g-index
39 all docs	39 docs citations	39 times ranked	2397 citing authors

#	Article	IF	Citations
1	High-mobility BaSnO3 grown by oxide molecular beam epitaxy. APL Materials, 2016, 4, .	5.1	181
2	Observation of the Quantum Hall Effect in Confined Films of the Three-Dimensional Dirac Semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mrow><mml:mn>3</r Physical Review Letters, 2018, 120, 016801.	7.8	144
3	Formation of high-quality quasi-free-standing bilayer graphene on SiC(0 0 0 1) by oxygen intercalation upon annealing in air. Carbon, 2013, 52, 83-89.	10.3	104
4	Efficient Terahertz Harmonic Generation with Coherent Acceleration of Electrons in the Dirac Semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mrow><mml:mn>3</r Physical Review Letters, 2020, 124, 117402.	7.8	97
5	Selective-area catalyst-free MBE growth of GaN nanowires using a patterned oxide layer. Nanotechnology, 2011, 22, 095603.	2.6	91
6	Synthesis of atomically thin hexagonal boron nitride films on nickel foils by molecular beam epitaxy. Applied Physics Letters, 2015, 106, .	3.3	81
7	Molecular beam epitaxy of Cd3As2 on a III-V substrate. APL Materials, 2016, 4, .	5.1	68
8	Negative magnetoresistance due to conductivity fluctuations in films of the topological semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">d</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physi	3.2	68
9	Influence of the adatom diffusion on selective growth of GaN nanowire regular arrays. Applied Physics Letters, 2011, 98, .	3.3	58
10	Thickness dependence of the quantum Hall effect in films of the three-dimensional Dirac semimetal Cd3As2. APL Materials, 2018, 6, .	5.1	55
11	Mono- and few-layer nanocrystalline graphene grown on Al2O3(0 0 0 1) by molecular beam epitaxy. Carbon, 2013, 56, 339-350.	10.3	54
12	Structure and optical band gaps of (Ba,Sr)SnO3 films grown by molecular beam epitaxy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	45
13	Acousto-electric transport in epitaxial monolayer graphene on SiC. Applied Physics Letters, 2013, 102, .	3.3	44
14	Synthesis of quasi-free-standing bilayer graphene nanoribbons on SiC surfaces. Nature Communications, 2015, 6, 7632.	12.8	42
15	Temperature dependent Hall-effect in thin films of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">d</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physi	3.2	42
16	Conduction band edge effective mass of La-doped BaSnO3. Applied Physics Letters, 2016, 108, .	3.3	39
17	Effect of buffer layer coupling on the lattice parameter of epitaxial graphene on SiC(0001). Physical Review B, 2014, 90, .	3.2	36
18	Widely Tunable Optical and Thermal Properties of Dirac Semimetal Cd₃As₂. Advanced Optical Materials, 2020, 8, 1901192.	7.3	27

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19	Soft phonons and ultralow lattice thermal conductivity in the Dirac semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cd</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Research, 2019, 1, .	3.6	26
20	Topological Insulator State and Collapse of the Quantum Hall Effect in a Three-Dimensional Dirac Semimetal Heterojunction. Physical Review X, 2020, 10, .	8.9	22
21	Basal-plane growth of cadmium arsenide by molecular beam epitaxy. Physical Review Materials, 2019, 3, .	2.4	19
22	Surface states of strained thin films of the Dirac semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cd</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2019, 3, .	2.4	18
23	Structural investigation of nanocrystalline graphene grown on (6âˆš3 Ã— 6âˆš3)R30Â°-reconstructed SiC surfaces by molecular beam epitaxy. New Journal of Physics, 2013, 15, 123034.	2.9	16
24	Molecular beam epitaxy of graphene on ultra-smooth nickel: growth mode and substrate interactions. New Journal of Physics, 2014, 16, 093055.	2.9	16
25	Probing charge pumping and relaxation of the chiral anomaly in a Dirac semimetal. Science Advances, 2021, 7, .	10.3	16
26	Nitrogen surface passivation of the Dirac semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">d</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">s</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physi	2.4	16
27	Controlled synthesis and characterization of multilayer graphene films on the Câ€face of silicon carbide. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600721.	1.8	14
28	The impact of substrate selection for the controlled growth of graphene by molecular beam epitaxy. Journal of Crystal Growth, 2015, 425, 274-278.	1.5	13
29	Field-effect transistors with the three-dimensional Dirac semimetal cadmium arsenide. Applied Physics Letters, 2019, 115, .	3.3	12
30	Absence of signatures of Weyl orbits in the thickness dependence of quantum transport in cadmium arsenide. Physical Review B, 2019, 99, .	3.2	12
31	Prospects of Terahertz Transistors with the Topological Semimetal Cadmium Arsenide. Advanced Electronic Materials, 2020, 6, 2000676.	5.1	11
32	Topological surface states in strained Dirac semimetal thin films. Physical Review B, 2020, 102, .	3.2	10
33	Room-Temperature Spin Transport in Cd₃As₂. ACS Nano, 2021, 15, 5459-5466.	14.6	8
34	Detecting topological phase transitions in cadmium arsenide films via the transverse magnetoresistance. Applied Physics Letters, 2021, 119, .	3.3	8
35	Point group symmetry of cadmium arsenide thin films determined by convergent beam electron diffraction. Physical Review Materials, 2019, 3, .	2.4	6
36	Cathodoluminescence spectroscopy on selectively grown GaN nanowires. Proceedings of SPIE, 2011, , .	0.8	2

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37	Photoluminescence and Raman scattering studies of GaN nanowires obtained by top-down and bottom-up approaches. Materials Research Society Symposia Proceedings, 2012, 1408, 29.	0.1	2
38	Magnetoresistance effects in cadmium arsenide thin films. Applied Physics Letters, 2020, 117, .	3.3	1
39	HAADF-STEM Study of MBE-Grown Dirac Semimetal Cd3As2. Microscopy and Microanalysis, 2017, 23, 1480-1481.	0.4	0