

Lothar Ley

List of Publications by Year in descending order

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60
papers

5,358
citations

218677

26
h-index

155660

55
g-index

64
all docs

64
docs citations

64
times ranked

7382
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards wafer-size graphene layers by atmospheric pressure graphitization of silicon carbide. <i>Nature Materials</i> , 2009, 8, 203-207.	27.5	2,396
2	Functionalization of Single-Walled Carbon Nanotubes with (R)-Oxycarbonyl Nitrenes. <i>Journal of the American Chemical Society</i> , 2003, 125, 8566-8580.	13.7	520
3	Effect of SOCl ₂ Treatment on Electrical and Mechanical Properties of Single-Wall Carbon Nanotube Networks. <i>Journal of the American Chemical Society</i> , 2005, 127, 5125-5131.	13.7	330
4	Doping of single-walled carbon nanotube bundles by Brønsted acids. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 5472-5476.	2.8	192
5	Nucleophilic Alkylation/Reoxidation: A Functionalization Sequence for Single-Wall Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2006, 128, 6683-6689.	13.7	156
6	Angle-resolved uv photoemission and electronic band structures of the lead chalcogenides. <i>Physical Review B</i> , 1978, 18, 3847-3871.	3.2	130
7	[2+1] cycloaddition for cross-linking SWCNTs. <i>Carbon</i> , 2004, 42, 941-947.	10.3	121
8	Raman scattering in polycrystalline 3C-SiC: Influence of stacking faults. <i>Physical Review B</i> , 1998, 58, 9858-9862.	3.2	114
9	Band tails in hydrogenated amorphous silicon and silicon-germanium alloys. <i>Physical Review Letters</i> , 1990, 64, 2811-2814.	7.8	100
10	Photoemission and optical properties. <i>Topics in Applied Physics</i> , 1984, , 61-168.	0.8	83
11	Calculating the Universal Energy Level Alignment of Organic Molecules on Metal Oxides. <i>Advanced Functional Materials</i> , 2013, 23, 794-805.	14.9	79
12	Quantitative evaluation of biaxial strain in epitaxial 3C-SiC layers on Si(100) substrates by Raman spectroscopy. <i>Journal of Applied Physics</i> , 2002, 91, 1113-1117.	2.5	77
13	Electrochemical Surface Transfer Doping. <i>Journal of the Electrochemical Society</i> , 2004, 151, E315.	2.9	71
14	Alternative techniques to reduce interface traps in n-type 4H-SiC MOS capacitors. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1378-1389.	1.5	64
15	Surface transfer doping of diamond by fullerene. <i>Diamond and Related Materials</i> , 2005, 14, 451-458.	3.9	58
16	Diamond Surfaces with Air-Stable Negative Electron Affinity and Giant Electron Yield Enhancement. <i>Advanced Functional Materials</i> , 2013, 23, 5608-5614.	14.9	58
17	Valence Band Structure of PbS from Angle-Resolved Photoemission. <i>Physical Review Letters</i> , 1977, 38, 1033-1036.	7.8	55
18	Initial Stages of the Graphite-SiC(0001) Interface Formation Studied by Photoelectron Spectroscopy. <i>Materials Science Forum</i> , 2007, 556-557, 525-528.	0.3	55

#	ARTICLE	IF	CITATIONS
19	Quantitative determination of oxidative defects on single walled carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 3217-3220.	1.5	47
20	Characteristics of solution gated field effect transistors on the basis of epitaxial graphene on silicon carbide. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 345303.	2.8	47
21	Quasi-Freestanding Graphene on SiC(0001). <i>Materials Science Forum</i> , 0, 645-648, 629-632.	0.3	46
22	Strong and Tunable Spin-Orbit Coupling in a Two-Dimensional Hole Gas in Ionic-Liquid Gated Diamond Devices. <i>Nano Letters</i> , 2016, 16, 3768-3773.	9.1	45
23	Hydrothermal functionalisation of single-walled carbon nanotubes. <i>Synthetic Metals</i> , 2004, 142, 263-266.	3.9	40
24	Spin-Orbit Interaction in a Two-Dimensional Hole Gas at the Surface of Hydrogenated Diamond. <i>Nano Letters</i> , 2015, 15, 16-20.	9.1	39
25	Effect of an intermediate graphite layer on the electronic properties of metal/SiC contacts. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1369-1377.	1.5	32
26	Photoelectron emission from lithiated diamond. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2209-2222.	1.8	30
27	MoO ₃ induces p-type surface conductivity by surface transfer doping in diamond. <i>Applied Surface Science</i> , 2020, 509, 144890.	6.1	30
28	Universal Work Function of Metal Oxides Exposed to Air. <i>Advanced Materials Interfaces</i> , 2019, 6, 1802058.	3.7	29
29	Formation of a silicon terminated (100) diamond surface. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	28
30	Modification of Single-Walled Carbon Nanotubes by Hydrothermal Treatment. <i>Chemistry of Materials</i> , 2003, 15, 3314-3319.	6.7	24
31	Hydrogen-terminated diamond electrodes. I. Charges, potentials, and energies. <i>Physical Review E</i> , 2008, 78, 041602.	2.1	24
32	Attosecond-fast internal photoemission. <i>Nature Photonics</i> , 2020, 14, 219-222.	31.4	23
33	Random telegraphic noise in large area a-Si:H/a-Si _{1-x} N _x :H double barrier structures. <i>Journal of Non-Crystalline Solids</i> , 1989, 114, 696-697.	3.1	22
34	Doping efficiency and energy-level scheme in C ₆₀ F ₄₈ -doped zinc-tetraphenylporphyrin films. <i>Organic Electronics</i> , 2013, 14, 169-174.	2.6	22
35	G-factor and well width variations for the two-dimensional hole gas in surface conducting diamond. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	18
36	Hydrogen-terminated diamond electrodes. II. Redox activity. <i>Physical Review E</i> , 2008, 78, 041603.	2.1	17

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37	Electronic Structure of Graphite/6H-SiC Interfaces. Materials Science Forum, 2007, 556-557, 701-704.	0.3	15
38	Hydrogen-related defects in hydrogenated amorphous semiconductors. Physical Review B, 1991, 44, 1066-1073.	3.2	14
39	Preparation of low index single crystal diamond surfaces for surface science studies. Diamond and Related Materials, 2011, 20, 418-427.	3.9	14
40	Temperature effects on valence bands in semiconducting lead chalcogenides. Solid State Communications, 1979, 32, 353-356.	1.9	11
41	γ -factor and well-width fluctuations as a function of carrier density in the two-dimensional hole accumulation layer of transfer-doped diamond. Physical Review B, 2019, 99, .	3.2	11
42	Strong spin-orbit interaction induced by transition metal oxides at the surface of hydrogen-terminated diamond. Carbon, 2020, 164, 244-250.	10.3	11
43	Defects and disorder broadened band tails in compensated hydrogenated amorphous silicon. Journal of Non-Crystalline Solids, 1991, 137-138, 387-390.	3.1	9
44	Determination of conduction-band states in GaAs(110), InP(110), and InAs(110). Physical Review B, 1993, 47, 12625-12635.	3.2	9
45	Engineering the spin-orbit interaction in surface conducting diamond with a solid-state gate dielectric. Applied Physics Letters, 2020, 116, .	3.3	6
46	Individual electronic defect states in a-Si:H/a-SiNx:H double barrier structures. Journal of Non-Crystalline Solids, 1991, 137-138, 1107-1110.	3.1	5
47	Correlation between electronic micro-roughness and surface topography in two-dimensional surface conducting hydrogen-terminated diamond. Diamond and Related Materials, 2021, 116, 108377.	3.9	5
48	Surface Conductivity of Diamond. , 2009, , 69-102.		4
49	Direct observation of phonon emission from hot electrons: spectral features in diamond secondary electron emission. Journal of Physics Condensed Matter, 2014, 26, 395008.	1.8	4
50	Conduction-band states in GaSb(110) and GaP(110) at the Brillouin-zone center. Physical Review B, 1993, 48, 14301-14308.	3.2	3
51	Contactless Measurement of the Thermal Conductivity of Thin SiC Layers. Materials Science Forum, 1998, 264-268, 657-660.	0.3	3
52	Conduction-band states and surface core excitons in InSb(110) and other III-V compounds. Physical Review B, 1994, 50, 7384-7388.	3.2	2
53	Cross-sectional scanning tunneling and scanning force microscopy of amorphous hydrogenated silicon pn-doping superlattices in nitrogen and in air. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 2440.	1.6	2
54	Energy level alignment at the porphyrin/cobaltocene interface: From transfer doping to cobalt intercalation. Organic Electronics, 2014, 15, 531-536.	2.6	2

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55	Modification of Electrical and Mechanical Properties of Single Wall Carbon Nanotubes by Reaction with SOCl ₂ . Materials Research Society Symposia Proceedings, 2003, 772, 311.	0.1	2
56	Fuctionalization of Single-Walled Carbon Nanotubes with Organo-Lithium Compounds: A Combined XPS, STM, and AFM study. AIP Conference Proceedings, 2005, , .	0.4	1
57	Surface Conductivity of Diamond: A Novel Doping Mechanism. Advances in Science and Technology, 2006, 48, 93-102.	0.2	1
58	Near-surface defects in amorphous semiconductors related to hydrogen incorporation. Journal of Non-Crystalline Solids, 1991, 137-138, 327-330.	3.1	0
59	Cross-sectional scanning-tunneling-spectroscopy of a-Si:H pn-doping superlattices. Superlattices and Microstructures, 1994, 16, 271-274.	3.1	0
60	High-field magnetotransport studies of surface-conducting diamonds. Physical Review B, 2022, 105, .	3.2	0