Bert A Nickel

List of Publications by Year
in descending order

117 papers	5,748 citations	109137 35 h-index	76769 74 g-index
123 all docs	123 docs citations	123 times ranked	8229 citing authors

#	Article	IF	Citations
1	Quantum Size Effect in Organometal Halide Perovskite Nanoplatelets. Nano Letters, 2015, 15, 6521-6527.	4.5	785
2	Pentacene Thin Film Growth. Chemistry of Materials, 2004, 16, 4497-4508.	3.2	588
3	Bonding Self-Assembled, Compact Organophosphonate Monolayers to the Native Oxide Surface of Silicon. Journal of the American Chemical Society, 2003, 125, 16074-16080.	6.6	310
4	Determination of the Crystal Structure of Substrate-Induced Pentacene Polymorphs in Fiber Structured Thin Films. Journal of the American Chemical Society, 2007, 129, 10316-10317.	6.6	283
5	Pentacene ultrathin film formation on reduced and oxidized Si surfaces. Physical Review B, 2003, 67, .	1.1	204
6	Evidence for Temperature-Dependent Electron Band Dispersion in Pentacene. Physical Review Letters, 2006, 96, 156803.	2.9	197
7	Advances in Quantumâ€Confined Perovskite Nanocrystals for Optoelectronics. Advanced Energy Materials, 2017, 7, 1700267.	10.2	176
8	Dynamic Scaling, Island Size Distribution, and Morphology in the Aggregation Regime of Submonolayer Pentacene Films. Physical Review Letters, 2003, 91, 136102.	2.9	172
9	Structure of pentacene thin films. Applied Physics Letters, 2004, 85, 4926-4928.	1.5	163
10	3D DNA Origami Crystals. Advanced Materials, 2018, 30, e1800273.	11.1	150
11	Hyperthermal Molecular Beam Deposition of Highly Ordered Organic Thin Films. Physical Review Letters, 2003, 90, 206101.	2.9	129
12	Chemical functionalization of GaN and AlN surfaces. Applied Physics Letters, 2005, 87, 263901.	1.5	128
13	Ultrafast Exciton Relaxation in Microcrystalline Pentacene Films. Physical Review Letters, 2007, 99, 176402.	2.9	121
14	Ultrafast singlet and triplet dynamics in microcrystalline pentacene films. Physical Review B, 2009, 79, .	1.1	110
15	Organophosphonate-Based PNA-Functionalization of Silicon Nanowires for Label-Free DNA Detection. ACS Nano, 2008, 2, 1653-1660.	7.3	104
16	Confining metal-halide perovskites in nanoporous thin films. Science Advances, 2017, 3, e1700738.	4.7	103
17	Sub-micron phase coexistence in small-molecule organic thin films revealed by infrared nano-imaging. Nature Communications, 2014, 5, 4101.	5.8	95
18	Dislocation arrangements in pentacene thin films. Physical Review B, 2004, 70, .	1.1	84

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19	Shape and Interhelical Spacing of DNA Origami Nanostructures Studied by Small-Angle X-ray Scattering. Nano Letters, 2016, 16, 4282-4287.	4.5	70
20	Controlled Nucleation and Growth of CdS Nanoparticles in a Polymer Matrix. Journal of Physical Chemistry B, 2006, 110, 12603-12609.	1.2	68
21	Neural Networks Grown on Organic Semiconductors. Advanced Functional Materials, 2008, 18, 1751-1756.	7.8	64
22	Chiral Assembly of Goldâ€“Silver Coreâ€“Shell Plasmonic Nanorods on DNA Origami with Strong Optical Activity. ACS Nano, 2020, 14, 7454-7461.	7.3	63
23	X-ray-Based Techniques to Study the Nanoâ€“Bio Interface. ACS Nano, 2021, 15, 3754-3807.	7.3	60
24	Polymer Nanoreactors Shield Perovskite Nanocrystals from Degradation. Nano Letters, 2019, 19, 4928-4933.	4.5	57
25	Electrical Detection of Self-Assembled Polyelectrolyte Multilayers by a Thin Film Resistor. Macromolecules, 2006, 39, 463-466.	2.2	54
26	Structure and Dynamics of Crystalline Protein Layers Bound to Supported Lipid Bilayers. Langmuir, 2007, 23, 6263-6269.	1.6	49
27	Perylene Sensitization of Fullerenes for Improved Performance in Organic Photovoltaics. Advanced Energy Materials, 2011, 1, 861-869.	10.2	49
28	Horizontal ToF-neutron reflectometer REFSANS at FRM-II Munich/Germany: First tests and status. Physica B: Condensed Matter, 2006, 385-386, 1161-1163.	1.3	44
29	A microfluidic setup for studies of solid-liquid interfaces using x-ray reflectivity and fluorescence microscopy. Review of Scientific Instruments, 2005, 76, 095103.	0.6	43
30	Position Accuracy of Gold Nanoparticles on DNA Origami Structures Studied with Small-Angle X-ray Scattering. Nano Letters, 2018, 18, 2609-2615.	4.5	43
31	Structure and Mobility of Lipid Membranes on a Thermoplastic Substrate. Langmuir, 2006, 22, 538-545.	1.6	40
32	Pentacene devices: Molecular structure, charge transport and photo response. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 526-533.	0.8	40
33	Influence of ibuprofen on phospholipid membranes. Physical Review E, 2015, 91, 022716.	0.8	39
34	Growth of Perovskite CsPbBr₃ Nanocrystals and Their Formed Superstructures Revealed by In Situ Spectroscopy. Chemistry of Materials, 2020, 32, 8877-8884.	3.2	39
35	A Lipid Photoswitch Controls Fluidity in Supported Bilayer Membranes. Langmuir, 2020, 36, 2629-2634.	1.6	38
36	Observation of competing modes in the growth of diindenoperylene on SiO 2. Thin Solid Films, 2006, 503, 127-132.	0.8	36

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37	Asymmetric Distribution of Anionic Phospholipids in Supported Lipid Bilayers. Langmuir, 2012, 28, 10818-10821.	1.6	36
38	Phase separation in vacuum codeposited pentacene/6,13-pentacenequinone thin films. Physical Review B, 2007, 75, .	1.1	34
39	Ammonia sensing for enzymatic urea detection using organic field effect transistors and a semipermeable membrane. Journal of Materials Chemistry B, 2016, 4, 162-168.	2.9	33
40	Asymmetric Structural Features in Single Supported Lipid Bilayers Containing Cholesterol and GM1 Resolved with Synchrotron X-Ray Reflectivity. Biophysical Journal, 2008, 95, 657-668.	0.2	32
41	Aperiodic CrSc multilayer mirrors for attosecond water window pulses. Optics Express, 2013, 21, 21728.	1.7	32
42	Surface Segregation-Induced Critical Phenomena at FeCo(001) Surfaces. Physical Review Letters, 1997, 78, 3880-3883.	2.9	31
43	Isostructural Self-Assembled Monolayers. 1. Octadecyl 1-Thiaoligo(ethylene oxides). Langmuir, 2003, 19, 2612-2620.	1.6	29
44	Dual Channel Operation Upon nâ€Channel Percolation in a Pentaceneâ€C₆₀ Ambipolar Organic Thin Film Transistor. Advanced Materials, 2013, 25, 2147-2151.	11.1	29
45	Spin-resolved off-specular neutron scattering maps from magnetic multilayers using a polarized 3He gas spin filter. Review of Scientific Instruments, 2001, 72, 163-172.	0.6	28
46	Growth of pentacene on Ag(111) surface: A NEXAFS study. Applied Surface Science, 2007, 254, 103-107.	3.1	28
47	Photocatalytic Cleavage of Selfâ€Assembled Organic Monolayers by UVâ€Induced Charge Transfer from GaN Substrates. Advanced Materials, 2010, 22, 2632-2636.	11.1	28
48	Thickness-dependent in situ studies of trap states in pentacene thin film transistors. Applied Physics Letters, 2010, 96, 083304.	1.5	28
49	Lanthanumâ€“molybdenum multilayer mirrors for attosecond pulses between 80 and 130â€‰eV. New Journal of Physics, 2011, 13, 063038.	1.2	26
50	Molecular Architecture: Construction of Self-Assembled Organophosphonate Duplexes and Their Electrochemical Characterization. Langmuir, 2012, 28, 7889-7896.	1.6	26
51	Mapping of Trap Densities and Hotspots in Pentacene Thinâ€Film Transistors by Frequencyâ€Resolved Scanning Photoresponse Microscopy. Advanced Materials, 2013, 25, 5719-5724.	11.1	26
52	Highly Hydrated Deformable Polyethylene Glycol-Tethered Lipid Bilayers. Langmuir, 2014, 30, 9442-9447.	1.6	25
53	Nanostructured amorphous gallium phosphide on silica for nonlinear and ultrafast nanophotonics. Nanoscale Horizons, 2020, 5, 1500-1508.	4.1	24
54	Structural characterization of an elevated lipid bilayer obtained by stepwise functionalization of a self-assembled alkenyl silane film. Biointerphases, 2007, 2, 109-118.	0.6	23

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55	Sub-nanometer Control of the Interlayer Spacing in Thin Films of Intercalated Rodlike Conjugated Molecules. Journal of Physical Chemistry B, 2007, 111, 14097-14101.	1.2	21
56	Towards flexible organic thin film transistors (OTFTs) for biosensing. Journal of Materials Chemistry B, 2013, 1, 3830.	2.9	21
57	Optical Membrane Control with Red Light Enabled by Red-Shifted Photolipids. Langmuir, 2022, 38, 385-393.	1.6	21
58	A Highlyâ€Ordered 3D Covalent Fullerene Framework. Angewandte Chemie - International Edition, 2015, 54, 7577-7581.	7.2	19
59	Spatially resolved photoresponse measurements on pentacene thin-film transistors. Applied Physics A: Materials Science and Processing, 2009, 95, 113-117.	1.1	18
60	Ion polished Cr/Sc attosecond multilayer mirrors for high water window reflectivity. Optics Express, 2014, 22, 26526.	1.7	18
61	Critical Adsorption and Dimensional Crossover in Epitaxial FeCo Films. Physical Review Letters, 2000, 85, 134-137.	2.9	17
62	Pentacene Thinâ€Film Transistors Encapsulated by a Thin Alkane Layer Operated in an Aqueous Ionic Environment. Advanced Materials, 2010, 22, 4350-4354.	11.1	17
63	Bio-selective surfaces by chemically amplified constructive microlithography. Surface Science, 2007, 601, 4984-4992.	0.8	15
64	A Mo-anode-based in-house source for small-angle X-ray scattering measurements of biological macromolecules. Review of Scientific Instruments, 2016, 87, 025103.	0.6	15
65	X-ray studies bridge the molecular and macro length scales during the emergence of CoO assemblies. Nature Communications, 2021, 12, 4429.	5.8	14
66	Chromium/scandium multilayer mirrors for isolated attosecond pulses at 145â€‰â€‰eV. Optics Letters, 2015, 40, 2846.	1.7	13
67	Nanostructures in n-Octanol Equilibrated with Additives and/or Water. Langmuir, 2018, 34, 6285-6295.	1.6	12
68	Polymer Lamellae as Reaction Intermediates in the Formation of Copper Nanospheres as Evidenced by Inâ€…Situ Xâ€ray Studies. Angewandte Chemie - International Edition, 2020, 59, 11627-11633.	7.2	12
69	Nanostructure of supported lipid bilayers in water. Biointerphases, 2008, 3, FC40-FC46.	0.6	11
70	DNA-linked superlattices get into shape. Nature Materials, 2015, 14, 746-749.	13.3	11
71	Fast detection of blood gases by solution gated organic field effect transistors. Organic Electronics, 2016, 39, 113-117.	1.4	11
72	Lipid Monolayer Formation and Lipid Exchange Monitored by a Graphene Field-Effect Transistor. Langmuir, 2018, 34, 4224-4233.	1.6	11

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73	SAXS measurements of azobenzene lipid vesicles reveal buffer-dependent photoswitching and quantitative Zâ†'E isomerisation by X-rays. Nanophotonics, 2022, 11, 2361-2368.	2.9	9
74	Reflectivity and off-specular neutron scattering from ferrofluid. Physica B: Condensed Matter, 2000, 283, 203-207.	1.3	8
75	Reflectivity and off-specular neutron scattering from the free ferrofluid surface and siliconâ€"ferrofluid interface. Physica B: Condensed Matter, 2001, 297, 194-197.	1.3	8
76	Arrangement of Annexin A2 tetramer and its impact on the structure and diffusivity of supported lipid bilayers. Soft Matter, 2010, 6, 4084.	1.2	7
77	Photocurrent microscopy of contact resistance and charge carrier traps in organic field-effect transistors. Applied Physics Letters, 2016, 109, 053301.	1.5	7
78	Transferable Organic Semiconductor Nanosheets for Application in Electronic Devices. Advanced Materials, 2017, 29, 1606283.	11.1	7
79	Seed crystal free growth of high-quality double cation â€" double halide perovskite single crystals for optoelectronic applications. Journal of Materials Chemistry C, 2020, 8, 8275-8283.	2.7	7
80	Transient TCAD simulation of three-stage organic ring oscillator. Journal of Computational Electronics, 2007, 5, 345-348.	1.3	6
81	Large polycyclic aromatic hydrocarbons for application in donorâ€"acceptor photovoltaics. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 785-789.	0.8	6
82	Cell Motility on Polyethylene Glycol Block Copolymers Correlates to Fibronectin Surface Adsorption. Macromolecular Bioscience, 2014, 14, 1755-1763.	2.1	6
83	Sub-monolayer percolation of pentacene on rough parylene-C dielectrics. Organic Electronics, 2015, 26, 439-442.	1.4	5
84	Surfaceâ€directed molecular assembly of pentacene on aromatic organophosphonate selfâ€assembled monolayers explored by polarized Raman spectroscopy. Journal of Raman Spectroscopy, 2017, 48, 235-242.	1.2	5
85	Probing the Interface Structure of Adhering Cells by Contrast Variation Neutron Reflectometry. Langmuir, 2019, 35, 513-521.	1.6	5
86	Wafer scale synthesis of organic semiconductor nanosheets for van der Waals heterojunction devices. Npj 2D Materials and Applications, 2021, 5, .	3.9	5
87	Crossover between strong- and weak-field critical adsorption and the determination of the universal exponent Î·â‰¥. Journal of Chemical Physics, 2002, 117, 902-908.	1.2	4
88	Metal vs. Polymer Electrodes in Organic Devices: Energy Level Alignment, Hole Injection, and Structure. Materials Research Society Symposia Proceedings, 2003, 771, 361.	0.1	4
89	Supported membranes on polyelectrolyte layers studied by X-ray reflectometry. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3463-3467.	0.8	4
90	Photoresponse and morphology of pentacene thin films modified by oxidized and reduced diamond surfaces. Physical Review B, 2009, 80, .	1.1	4

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91	An Electrochemical Transducer Based on a Pentacene Doubleâ€Gate Thinâ€Film Transistor. Electroanalysis, 2012, 24, 214-218.	1.5	4
92	Î±,Ï‰-dihexyl-sexithiophene thin films for solution-gated organic field-effect transistors. Applied Physics Letters, 2016, 108, .	1.5	4
93	Modular Assembly of Vibrationally and Electronically Coupled Rhenium Bipyridine Carbonyl Complexes on Silicon. Journal of the American Chemical Society, 2021, 143, 19505-19516.	6.6	4
94	Aperiodic multilayer mirrors for attosecond soft x-ray pulses. Proceedings of SPIE, 2012, , .	0.8	3
95	Polymer Lamellae as Reaction Intermediates in the Formation of Copper Nanospheres as Evidenced by Inâ€…Situ Xâ€ray Studies. Angewandte Chemie, 2020, 132, 11724-11730.	1.6	3
96	Structure of Nanocomposite films of CdS nanoparticles in a polymer matrix. Materials Research Society Symposia Proceedings, 2004, 847, 158.	0.1	2
97	Scanning photocurrent microscopy of electrons and holes in the pigment semiconductor epindolidione. Organic Electronics, 2018, 60, 51-56.	1.4	2
98	A resistor network simulation model for laser-scanning photo-current microscopy to quantify low conductance regions in organic thin films. Organic Electronics, 2018, 62, 474-480.	1.4	2
99	Trapping Effects in Organic Thin Film Transistors. , 0, , .		1
100	Pentacene Devices: Molecular Structure, Charge Transport and Photo Response. , 0, , 299-315.		1
101	The Ultrafast Dynamics of Electronic Excitations in Pentacene Thin Films. Materials Research Society Symposia Proceedings, 2010, 1270, 1.	0.1	1
102	Neural Stem Cell Spreading on Lipid Based Artificial Cell Surfaces, Characterized by Combined X-ray and Neutron Reflectometry. Materials, 2010, 3, 4994-5006.	1.3	1
103	Broadband multilayer mirror and diffractive optics for attosecond pulse shaping in the 280-500 eV photon energy range. EPJ Web of Conferences, 2013, 41, 01011.	0.1	1
104	Attosecond broadband multilayer mirrors for the water window spectral range. Proceedings of SPIE, 2014, , .	0.8	1
105	Microdiffraction imagingâ€”a suitable tool to characterize organic electronic devices. AIMS Materials Science, 2015, 2, 369-378.	0.7	1
106	Doubly Stabilized Perovskite Nanocrystal Luminescence Downconverters. Advanced Optical Materials, 2022, 10, .	3.6	1
107	Growth and Morphology of Pentacene Films on Oxide Surfaces. Materials Research Society Symposia Proceedings, 2001, 708, 10541.	0.1	0
108	Ultrafast Exciton Decay in Microcrystalline Pentacene Films. , 2007, , .		0

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109	Role of Charge Interaction in the Behavior of Organic Thin Film Transistors. Materials Research Society Symposia Proceedings, 2007, 1003, 1.	0.1	0
110	Dispersive single particle sensing with μs time resolution using toroidal microresonators. , 2011, , .		0
111	RÃ¼cktitelbild: A Highly-Ordered 3D Covalent Fullerene Framework (Angew. Chem. 26/2015). Angewandte Chemie, 2015, 127, 7830-7830.	1.6	0
112	X-ray study of anisotropically shaped metal halide perovskite nanoparticles in tubular pores. Applied Physics Letters, 2018, 113, 251901.	1.5	0
113	Electronic Structure and Dynamics in Thin, Ordered Pentacene Films. , 2006, , .		0
114	Electronic Excitations in Pentacene Films: Singlet versus Triplet Dynamics. Springer Series in Chemical Physics, 2009, , 376-378.	0.2	0
115	Optimizing broadband attosecond Cr/Sc water window multilayer mirrors. , 2014, , .		0
116	Multilayer Mirrors for VUV-XUV Attosecond Pump-Probe Experiments. , 2015, , .		0
117	Organic Nanosheet Transfer for Hybrid 2D/3D Devices. , 0, , .		0