

Kurt Hingerl

List of Publications by Year in descending order

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137
papers

2,906
citations

257450

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189892

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140
docs citations

140
times ranked

4722
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards Real-Time In-Situ Mid-Infrared Spectroscopic Ellipsometry in Polymer Processing. <i>Polymers</i> , 2022, 14, 7.	4.5	11
2	Analysis of carbon content in direct-write plasmonic Au structures by nanomechanical scanning absorption microscopy. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	9
3	Determining the Dielectric Tensor of Microtextured Organic Thin Films by Imaging Mueller Matrix Ellipsometry. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3053-3058.	4.6	15
4	Imaging ellipsometry for structured and plasmonic materials. <i>Journal of Applied Physics</i> , 2021, 129, 113101.	2.5	2
5	Chloride-Induced Surface States in Cu(110)/Liquid Interfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25403-25411.	3.1	1
6	Adsorbate Isotherm Analysis by Reflection Anisotropy Spectroscopy on Copper (110) in Hydrochloric Acid. <i>Journal of Physical Chemistry C</i> , 2020, 124, 5204-5212.	3.1	4
7	Sub-second quantum cascade laser based infrared spectroscopic ellipsometry. <i>Optics Letters</i> , 2019, 44, 3426.	3.3	19
8	Water Splitting on Ti-Oxide-Terminated SrTiO ₃ (001). <i>Journal of Physical Chemistry C</i> , 2019, 123, 17232-17238.	3.1	11
9	Ab Initio Study of the Electronic, Vibrational, and Mechanical Properties of the Magnesium Diboride Monolayer. <i>Condensed Matter</i> , 2019, 4, 37.	1.8	9
10	In Situ Optical Quantification of Adsorbates and Surface Charges on Copper Crystals and Their Impact on the Hydrogen Evolution Reaction in Hydrochloric Electrolytes. <i>Journal of Physical Chemistry C</i> , 2018, 122, 8984-8997.	3.1	4
11	Surface pretreated low-temperature aluminum–aluminum wafer bonding. <i>Microsystem Technologies</i> , 2018, 24, 773-777.	2.0	7
12	Ellipsometric Spectroelectrochemistry: An in Situ Insight in the Doping of Conjugated Polymers. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24309-24320.	3.1	10
13	Effective attenuation length of keV photoelectrons in silicon measured by transmission through thin membranes. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2018, 225, 28-35.	1.7	4
14	Occurrence and significance of evanescent fields in structured samples. <i>Applied Surface Science</i> , 2017, 421, 738-743.	6.1	2
15	Anderson–Localization and the Mott–Ioffe–Regel Limit in Glassy–Metallic PEDOT. <i>Advanced Electronic Materials</i> , 2017, 3, 1700050.	5.1	34
16	Doping-Induced Polaron Formation and Solid-State Polymerization in Benzoporphyrin–Oligothiophene Conjugated Systems. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24397-24407.	3.1	9
17	Optical and photoelectrochemical characterization of pulsed laser deposited Bi ₄ V ₂ O ₁₁ , BiCuVOX, and BiZnVOX. <i>Thin Solid Films</i> , 2017, 638, 251-257.	1.8	11
18	Nonlinear ellipsometry of Si(111) by second harmonic generation. <i>Applied Surface Science</i> , 2017, 421, 761-765.	6.1	5

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19	Polymers with alternating anthracene and phenylene building blocks linked by ethynylene and/or vinylene units: Studying structureâ€propertiesâ€relationships. Journal of Polymer Science Part A, 2017, 55, 129-143.	2.3	9
20	Bulk quadrupole contribution to second harmonic generation from classical oscillator model in silicon. Optics Express, 2017, 25, 26567.	3.4	7
21	Experimental evidence for partial spatial coherence in imaging Mueller polarimetry. Optics Letters, 2017, 42, 4740.	3.3	1
22	Bulk quadrupole contribution to second harmonic generation from a microscopic response function. Physica Status Solidi (B): Basic Research, 2016, 253, 234-240.	1.5	2
23	Bulk dipolar contribution to second-harmonic generation in zincblende. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 195.	2.1	23
24	General formalism for partial spatial coherence in reflection Mueller matrix polarimetry. Optics Letters, 2016, 41, 4044.	3.3	22
25	Photovoltaic cells based on ternary P3HT:PCBM:polymethine dye active layer transparent in the visible range of light. Applied Surface Science, 2016, 389, 419-427.	6.1	18
26	Systematic Investigation of Porphyrinâ€Thiophene Conjugates for Ternary Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2016, 6, 1600957.	19.5	25
27	Thermally stable coexistence of liquid and solid phases in gallium nanoparticles. Nature Materials, 2016, 15, 995-1002.	27.5	124
28	Influence of molecular designs on polaronic and vibrational transitions in a conjugated push-pull copolymer. Scientific Reports, 2016, 6, 35096.	3.3	14
29	General approach for modeling partial coherence in spectroscopic Mueller matrix polarimetry. Optics Letters, 2016, 41, 219.	3.3	17
30	Bulk quadrupole and interface dipole contribution for second harmonic generation in Si(111). Journal of Optics (United Kingdom), 2016, 18, 035501.	2.2	20
31	The Role of Heteroatoms Leading to Hydrogen Bonds in View of Extended Chemical Stability of Organic Semiconductors. Advanced Functional Materials, 2015, 25, 6679-6688.	14.9	24
32	Density functional theory study of phonons in graphene doped with Li, Ca and Ba. Europhysics Letters, 2015, 112, 67006.	2.0	12
33	Iodideâ€Capped PbS Quantum Dots: Full Optical Characterization of a Versatile Absorber. Advanced Materials, 2015, 27, 1533-1539.	21.0	14
34	A first principles investigation of zinc induced embrittlement at grain boundaries in bcc iron. Acta Materialia, 2015, 90, 69-76.	7.9	73
35	Water adsorbate influence on the Cu(110) surface optical response. Surface Science, 2015, 641, 231-236.	1.9	9
36	Compact Titanium Oxycarbide: A New Substrate for Quantitative Analysis of Molecular Films by Means of Infrared Reflection Absorption Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 13767-13776.	3.1	9

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37	Catalytic effects of magnesium grain boundaries on H ₂ dissociation. International Journal of Hydrogen Energy, 2015, 40, 5683-5688.	7.1	1
38	CuI as versatile hole-selective contact for organic solar cell based on anthracene-containing PPE-PPV. Solar Energy Materials and Solar Cells, 2015, 143, 369-374.	6.2	35
39	Model of third harmonic generation and electric field induced optical second harmonic using simplified bond-hyperpolarizability model. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 562.	2.1	18
40	Giant cross polarization in a nanoimprinted metamaterial combining a fishnet with its Babinet complement. Optics Express, 2015, 23, 19034.	3.4	2
41	Polarization-dependent optical excitation of gap plasmon polaritons through rectangular hole arrays. Applied Physics Letters, 2015, 106, .	3.3	3
42	Strain-enhanced superconductivity in Li-doped graphene. Europhysics Letters, 2014, 108, 67005.	2.0	38
43	Simplified bond-hyperpolarizability model of second harmonic generation, group theory, and Neumann's principle. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 526.	2.1	21
44	Chloride-Induced Morphology Transformations of the Cu(110) Surface in Dilute HCl. Langmuir, 2014, 30, 14486-14493.	3.5	22
45	Graphene as an Electron Shuttle for Silver Deoxidation: Removing a Key Barrier to Plasmonics and Metamaterials for SERS in the Visible. Advanced Functional Materials, 2014, 24, 1864-1878.	14.9	85
46	Anthracene-containing conjugated polymer showing four optical transitions upon doping: A spectroscopic study. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 338-346.	2.1	9
47	Photoelectrochemical scanning droplet cell microscopy for localized photovoltaic investigations on organic semiconductors. Physical Chemistry Chemical Physics, 2014, 16, 3739.	2.8	11
48	Effect of Interface energy and electron transfer on shape, plasmon resonance and SERS activity of supported surfactant-free gold nanoparticles. RSC Advances, 2014, 4, 29660.	3.6	2
49	(Photo)physical Properties of New Molecular Glasses End-Capped with Thiophene Rings Composed of Diimide and Imine Units. Journal of Physical Chemistry C, 2014, 118, 13070-13086.	3.1	39
50	Surface plasmon polaritons and negative refraction in fishnet metamaterial. , 2014, , .		0
51	Light trapping in pyramidally textured crystalline silicon solar cells using backside diffractive gratings. Progress in Photovoltaics: Research and Applications, 2013, 21, 747-753.	8.1	19
52	Surface morphology, optical properties and conductivity changes of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) by using additives. Thin Solid Films, 2013, 536, 211-215.	1.8	97
53	Copper(110) surface in thermodynamic equilibrium with water vapor studied from first principles. Surface Science, 2013, 612, 82-89.	1.9	14
54	Dielectric Function of Undoped and Doped Poly[2-methoxy-5-(3,7-dimethyloctyloxy)-1,4-phenylene-vinylene] by Ellipsometry in a Wide Spectral Range. Journal of Physical Chemistry C, 2013, 117, 22010-22016.	3.1	18

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55	The impact of intramolecular π -coupling and steric flexibility on the ordering of organic films at solid/liquid-interfaces. Surface Science, 2013, 607, 74-81.	1.9	1
56	Spectroscopic Ellipsometry on Metallic Gratings. , 2013, , 257-311.		3
57	Quasiparticle band structure and optical properties of the ± 12 Si-Ge superstructure from first principles. Physical Review B, 2013, 88, .	3.2	3
58	Optical activity in sub-wavelength metallic grids and fishnet metamaterials in the conical mount. Optical Materials Express, 2013, 3, 439.	3.0	18
59	Simplified bond-hyperpolarizability model of second-harmonic-generation in Si(111): theory and experiment. Journal of Physics: Conference Series, 2013, 423, 012046.	0.4	7
60	Polarimetric and Other Optical Probes for the Solid-Liquid Interface. , 2013, , 493-527.		2
61	Oblique incidence ellipsometric characterization and the substrate dependence of visible frequency fishnet metamaterials. Optics Express, 2012, 20, 11166.	3.4	15
62	Enhancing Chemical and Optical Stability of Silver Nanostructures by Low-Temperature Hydrogen Atoms Processing. Journal of Physical Chemistry C, 2012, 116, 23004-23012.	3.1	15
63	Evidence of Plasmonic Coupling in Gallium Nanoparticles/Graphene/SiC. Small, 2012, 8, 2721-2730.	10.0	41
64	Nano-morphology characterization of organic bulk heterojunctions based on mono and bis-adduct fullerenes. Organic Electronics, 2012, 13, 1315-1321.	2.6	16
65	Ellipsometry as a Nondestructive Depth Profiling Tool for Roll-to-Roll Manufactured Flexible Solar Cells. Journal of Physical Chemistry C, 2011, 115, 10817-10822.	3.1	39
66	Determining the internal quantum efficiency of organic Bulk Heterojunctions based on mono and bis-adduct fullerenes as acceptor. Solar Energy Materials and Solar Cells, 2011, 95, 3093-3098.	6.2	17
67	Charge Transport and Recombination in Low-Bandgap Bulk Heterojunction Solar Cell using Bis-adduct Fullerene. Advanced Energy Materials, 2011, 1, 1162-1168.	19.5	108
68	Nano-silicon based photonic crystal stamps with electron beam lithography (EBL) technology. Proceedings of SPIE, 2010, , .	0.8	0
69	Nanomorphology and Charge Generation in Bulk Heterojunctions Based on Low-Bandgap Dithiophene Polymers with Different Bridging Atoms. Advanced Functional Materials, 2010, 20, 1180-1188.	14.9	173
70	Fabrication, Optical Modeling, and Color Characterization of Semitransparent Bulk-Heterojunction Organic Solar Cells in an Inverted Structure. Advanced Functional Materials, 2010, 20, 1592-1598.	14.9	182
71	Improvement of an evanescent field IR-absorption sensor by utilizing a photonic taper structure. Procedia Engineering, 2010, 5, 1013-1016.	1.2	1
72	3D materials made of gold using Nanoimprint Lithography. Microelectronic Engineering, 2010, 87, 1008-1010.	2.4	13

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73	Diffusion of thiols during microcontact printing with rigid stamps. Microelectronic Engineering, 2010, 87, 848-850.	2.4	8
74	LOCAL DISPERSION OF GUIDING MODES IN PHOTONIC CRYSTAL WAVEGUIDE INTERFACES AND HETERO-STRUCTURES. Progress in Electromagnetics Research B, 2010, 26, 39-52.	1.0	6
75	Controlling electromagnetic fields with graded photonic crystals in metamaterial regime. Optics Express, 2010, 18, 20321.	3.4	129
76	Design and fabrication of Si-based photonic crystal stamps with electron beam lithography (EBL). , 2010, , .		0
77	Greenberger-Horne-Zeilinger andWentanglement witnesses for the noninteracting Fermi gas. Physical Review A, 2010, 81, .	2.5	7
78	Coordinate transformation based design of confined metamaterial structures. Physical Review B, 2009, 79, .	3.2	38
79	Plasma Activation for Low Temperature Wafer Bonding. ECS Transactions, 2009, 16, 549-559.	0.5	11
80	Design and fabrication of Si-based photonic crystal stamps with electron beam lithography (EBL). Proceedings of SPIE, 2009, , .	0.8	0
81	Spectroscopic ellipsometry and polarimetry for materials and systems analysis at the nanometer scale: state-of-the-art, potential, and perspectives. Journal of Nanoparticle Research, 2009, 11, 1521-1554.	1.9	180
82	Imprinted conjugated polymer DFB lasers optimized based onÂsimulation results. Applied Physics A: Materials Science and Processing, 2009, 95, 265-272.	2.3	2
83	Reversal 1/4CP using hard stamps. Microelectronic Engineering, 2009, 86, 650-653.	2.4	5
84	Coupled cavity polaritons for switching and slow light applications. Photonics and Nanostructures - Fundamentals and Applications, 2009, 7, 39-46.	2.0	6
85	Surface Plasmons on Thin, Metallic Films. Journal of Computational and Theoretical Nanoscience, 2009, 6, 757-762.	0.4	0
86	Design and fabrication of si-based photonic crystal stamps. , 2009, , .		0
87	Optical design of 2D confined structures with metamaterial layers based on coordinate transformations. Physica Scripta, 2009, T135, 014045.	2.5	2
88	Performance improvement of organic solar cells with moth eye anti-reflection coating. Thin Solid Films, 2008, 516, 7167-7170.	1.8	141
89	Equalising stamp and substrate deformations in solid parallel-plate UV-based nanoimprint lithography. Microelectronic Engineering, 2008, 85, 822-824.	2.4	9
90	Study of local dispersion in photonic crystal waveguide interfaces and hetero-structures. , 2008, , .		0

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91	Quantum Optical-Effect-Based Tunable Switches and Delay Lines. IEEE Journal of Quantum Electronics, 2008, 44, 872-878.	1.9	4
92	Wafer Bonding of Plasma Activated Surfaces. ECS Transactions, 2008, 13, 39-45.	0.5	0
93	Quality factor optimization of photonic crystal cavities through multiple multipole expansion technique and power loss integral. , 2008, , .		2
94	Directly Imprinted Surface-Emitting Distributed Feedback Structure Polymer Sensor Laser Devices for Enhanced Oxygen Sensitivity. Japanese Journal of Applied Physics, 2008, 47, 304.	1.5	4
95	Dielectrophoretic particle dynamics in alternating-current electro-osmotic micropumps. Applied Physics Letters, 2008, 92, 184101.	3.3	10
96	Realization, characterization, and optical modeling of inverted bulk-heterojunction organic solar cells. Journal of Applied Physics, 2008, 103, .	2.5	90
97	Flat Bands and Surface States in Two-Dimensional Metallic Photonic Crystals. Journal of Computational and Theoretical Nanoscience, 2008, 5, 717-724.	0.4	0
98	Coupled surface states in one- and two-dimensional frequency dependent photonic crystals. , 2008, , .		0
99	GHZW Type Tripartite Entanglement in Non-Interacting Fermi Gas. , 2008, , .		0
100	Fabrication of 3D-photonic crystals via UV-nanoimprint lithography. Journal of Vacuum Science & Technology B, 2007, 25, 2337.	1.3	18
101	Angle dependence of external and internal quantum efficiencies in bulk-heterojunction organic solar cells. Journal of Applied Physics, 2007, 102, .	2.5	152
102	Band structure and coupled surface states in one-dimensional photonic crystals. Journal of Optics, 2007, 9, S339-S344.	1.5	17
103	Local Dispersion Relation and Local Group Velocity of Arbitrary-shape Photonic Crystal Waveguides. , 2007, , FTuM5.		0
104	Ultrafast switching by controlling Rabi splitting. Applied Physics Letters, 2007, 91, 231920.	3.3	21
105	Design of efficient organic tandem cells: On the interplay between molecular absorption and layer sequence. Journal of Applied Physics, 2007, 102, 123109.	2.5	101
106	Fabrication process of 3D-photonic crystals via UV-nanoimprint lithography. , 2007, , .		0
107	Method of calculating local dispersion in arbitrary photonic crystal waveguides. Optics Letters, 2007, 32, 2915.	3.3	8
108	Ultra Fast Switching by Controlling Rabi Splitting. , 2007, , .		1

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109	Band Structure and Coupled Surface Plasmons in One Dimensional, Frequency Dependent Photonic Crystals. , 2007, , .		0
110	All-optical switching by entangling quantum dot states in a photonic crystal cavity. , 2007, , .		0
111	Fabrication of silicon 3D taper structures for optical fibre to chip interface. Microelectronic Engineering, 2007, 84, 1248-1251.	2.4	7
112	Advanced impedance matching in photonic crystal waveguides. Optical and Quantum Electronics, 2007, 39, 387.	3.3	10
113	Geometrical freedom for constructing variable size photonic bandgap structures. Optical and Quantum Electronics, 2007, 39, 395-405.	3.3	9
114	Quantum confinement in layer-by-layer deposited colloidal HgTe nanocrystals determined by spectroscopic ellipsometry. Applied Surface Science, 2007, 254, 291-294.	6.1	10
115	Surface States in one and two-dimensional Photonic Crystals. , 2007, , .		0
116	Local Dispersion in 2D Photonic Crystals Using Filter Diagonalization Method. , 2007, , .		0
117	Improving the Impedance Matching in Photonic Crystal Waveguides. , 2006, , .		0
118	Geometric Freedom for Constructing Curvilinear and Variable Size Photonic Bandgap Structures. , 2006, , .		0
119	All-angle left-handed negative refraction in KagomÃ© and honeycomb lattice photonic crystals. Physical Review B, 2006, 73, .	3.2	60
120	Band structure, Wiener bounds, and coupled surface plasmons in one dimensional photonic crystals. Applied Physics Letters, 2006, 89, 081907.	3.3	20
121	<title>Optical properties of the undoped and SiO<formula><inf><roman>x</roman></inf></formula> doped DLC films</title>. , 2006, , .		4
122	Optimization of a 2D photonic crystal add/drop multiplexer based on contra-directional coupling. Photonics and Nanostructures - Fundamentals and Applications, 2006, 4, 155-160.	2.0	8
123	Spectroscopic ellipsometry of layer by layer deposited colloidal HgTe nanocrystals exhibiting quantum confinement. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 104-107.	2.7	9
124	Fabrication of silicon vertical taper structures using KOH anisotropic etching. Microelectronic Engineering, 2006, 83, 1430-1433.	2.4	12
125	Effect of quantum confinement on higher transitions in HgTe nanocrystals. Applied Physics Letters, 2006, 89, 193114.	3.3	20
126	A Simple Criterion for Improving the Impedance Matching in Photonic Crystal Waveguides. , 2006, , .		1

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127	Band Structure and Coupled Surface Plasmons in one dimensional Photonic Crystals. , 2006, , .		0
128	Local density of states and modes of circular photonic crystal cavities. Physical Review B, 2005, 72, .	3.2	26
129	Geometric Freedom in Photonic Bandgap Structure Designs. , 2005, , .		0
130	Physical and materials aspects of photonic crystals for microwaves and millimetre waves. International Journal of Materials Research, 2004, 95, 618-623.	0.8	9
131	Arbitrary angle waveguiding applications of two-dimensional curvilinear-lattice photonic crystals. Applied Physics Letters, 2004, 84, 4687-4689.	3.3	33
132	Arbitrary angle waveguiding applications of two dimensional curvilinear photonic crystals. , 2004, , .		0
133	In situ observation of strain-induced optical anisotropy of $\text{ZnSxSe1-x}/\text{GaAs}(110)$ during molecular-beam epitaxy. Physical Review B, 1999, 60, 8909-8914.	3.2	8
134	Growth and characterization of ZnSe and ZnTe grown on GaAs by hot-wall epitaxy. , 1991, , .		1
135	Electrical and optical properties of As- and Li-doped ZnSe films. , 1991, 1361, 943.		0
136	Van Hove correlation functions for identical fermions. Physical Review B, 1989, 39, 2117-2124.	3.2	2
137	Light Trapping in Monocrystalline Si Solar Cells Using Back-Side Diffraction Gratings. Solid State Phenomena, 0, 178-179, 446-450.	0.3	3