

# Derek Ho

## List of Publications by Year in descending order

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86  
papers

1,853  
citations

236612

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301761

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86  
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86  
docs citations

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times ranked

2533  
citing authors

#	ARTICLE	IF	CITATIONS
1	Micro-Redoxcapacitor: A Hybrid Architecture Out of the Notorious Energy-Power Density Dilemma. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	32
2	Dual Defocused Laser Pyrolysis: A Lasing-Centric Strategy for Defect and Morphological Optimization in Microsupercapacitor Electrodes. <i>Small Methods</i> , 2022, , 2101616.	4.6	2
3	Micro-Redoxcapacitor: A Hybrid Architecture Out of the Notorious Energy-Power Density Dilemma (Adv. Funct. Mater. 19/2022). <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	5
4	SnS <sub>2</sub> /MXene derived TiO <sub>2</sub> hybrid for ultra-fast room temperature NO <sub>2</sub> gas sensing. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7407-7416.	2.7	33
5	High Energy Efficiency and Thermal Stability of BaTiO <sub>3</sub> -BiScO <sub>3</sub> Thin Films Based on Defects Engineering. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1097-1106.	2.0	9
6	The Adatom Concentration Profile: A Paradigm for Understanding Two-Dimensional MoS <sub>2</sub> Morphological Evolution in Chemical Vapor Deposition Growth. <i>ACS Nano</i> , 2021, 15, 6839-6848.	7.3	20
7	Modulation of the Reaction Mechanism via S/Mo: A Rational Strategy for Large-Area MoS <sub>2</sub> Growth. <i>Chemistry of Materials</i> , 2021, 33, 3249-3257.	3.2	12
8	Interlayer Structure Engineering of MXene-Based Capacitor-Type Electrode for Hybrid Micro-Supercapacitor toward Battery-Level Energy Density. <i>Advanced Science</i> , 2021, 8, e2100775.	5.6	104
9	Precursor Concentration Ratio: The Key to Controllable Lateral-to-Standing MoO <sub>2</sub> Flake Transition. <i>Chemistry of Materials</i> , 2021, 33, 6052-6058.	3.2	6
10	Theoretical analysis and image reconstruction for multi-bit quanta image sensors. <i>Signal Processing</i> , 2021, 185, 108087.	2.1	3
11	Battery-Sensor Hybrid: A New Gas Sensing Paradigm with Complete Energy Self-Sufficiency. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 46507-46517.	4.0	6
12	Natively stretchable micro-supercapacitors based on a PEDOT:PSS hydrogel. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1685-1692.	2.7	23
13	Rolled-up island-bridge (RIB): a new and general electrode configuration design for a wire-shaped stretchable micro-supercapacitor array. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2899-2911.	5.2	25
14	Critical Effect of Film-Electrode Interface on Enhanced Energy Storage Performance of BaTiO <sub>3</sub> -BiScO <sub>3</sub> Ferroelectric Thin Films. <i>ACS Applied Electronic Materials</i> , 2021, 3, 4726-4733.	2.0	5
15	Multi-length scale hierarchical architecture overcoming pressure sensing range-speed tradeoff for skin electronics. <i>Journal of Materials Chemistry C</i> , 2021, 9, 17129-17135.	2.7	6
16	A synergistic self-assembled 3D PEDOT:PSS/graphene composite sponge for stretchable microsupercapacitors. <i>Journal of Materials Chemistry A</i> , 2020, 8, 554-564.	5.2	72
17	Concurrently Realizing Geometric Confined Growth and Doping of Transition Metals within Graphene Hosts for Bifunctional Electrocatalysts toward a Solid-State Rechargeable Micro-Zn-Air Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 38031-38044.	4.0	24
18	Asynchronous Event-driven Encoder With Simultaneous Temporal Envelope and Phase Extraction for Cochlear Implants. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2020, 14, 620-630.	2.7	3

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19	Mn dopant induced high-valence Ni <sup>3+</sup> sites and oxygen vacancies for enhanced water oxidation. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1993-1999.	3.2	28
20	Nitrogen Dioxide Gas Sensor Based on Liquid-Phase-Exfoliated Black Phosphorus Nanosheets. <i>ACS Applied Nano Materials</i> , 2020, 3, 6440-6447.	2.4	28
21	Wideband Class-F <sup>1</sup> Power Amplifier With Dual-/Quad-Mode Bandpass Response. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 2239-2249.	3.5	23
22	Bean Pod-Inspired Ultrasensitive and Self-Healing Pressure Sensor Based on Laser-Induced Graphene and Polystyrene Microsphere Sandwiched Structure. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9710-9717.	4.0	69
23	Size-Tunable Flowerlike MoS <sub>2</sub> Nanospheres Combined with Laser-Induced Graphene Electrodes for NO <sub>2</sub> Sensing. <i>ACS Applied Nano Materials</i> , 2020, 3, 2545-2553.	2.4	36
24	Linearity Enhanced Harmonic-Modulated Impedance Inverter Doherty-Like Power Amplifier. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 2029-2041.	3.5	25
25	High energy storage efficiency and thermal stability of Bi <sup>3+</sup> -deficient and 110° textured BaTiO <sub>3</sub> -BiScO <sub>3</sub> thin films. <i>Journal of the American Ceramic Society</i> , 2020, 103, 3168-3177.	1.9	13
26	Oxygen octahedral tilt ordering in (Na <sub>1/2</sub> Bi <sub>1/2</sub> )TiO <sub>3</sub> ferroelectric thin films. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	2
27	AND logic gate based fluorescence probe for simultaneous detection of peroxyxynitrite and hypochlorous acid. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 230, 118073.	2.0	18
28	A Low-Cost Time-Correlated Single Photon Counting Portable DNA Analyzer. <i>Sensors</i> , 2019, 19, 2838.	2.1	4
29	Cuffless Continuous Blood Pressure Estimation From Pulse Morphology of Photoplethysmograms. <i>IEEE Access</i> , 2019, 7, 141970-141977.	2.6	31
30	Fully Integrated Liquid-Core Waveguide Fluorescence Lifetime Detection Microsystem for DNA Biosensing. <i>IEEE Access</i> , 2019, 7, 111944-111953.	2.6	0
31	A Mixed Topology for Broadband High-Efficiency Doherty Power Amplifier. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2019, 67, 1050-1064.	2.9	29
32	An ultra-sensitive and ratiometric fluorescent probe based on the DTBET process for Hg <sup>2+</sup> detection and imaging applications. <i>Analyst</i> , 2019, 144, 1353-1360.	1.7	43
33	Liquid-core waveguide TCSPC sensor for high-accuracy fluorescence lifetime analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 3641-3652.	1.9	7
34	Highly sensitive and selective NO <sub>2</sub> sensor based on 3D MoS <sub>2</sub> /rGO composites prepared by a low temperature self-assembly method. <i>Journal of Alloys and Compounds</i> , 2019, 793, 541-551.	2.8	35
35	A novel method for predicting optimal gas sensing temperature of morphologically distinct nanostructured Schottky interfaces. <i>Sensors and Actuators B: Chemical</i> , 2019, 287, 468-475.	4.0	6
36	Low Detection Limit Time-Correlated Single Photon Counting Lifetime Analytical System for Point-of-Care Applications. <i>IEEE Access</i> , 2019, 7, 18256-18266.	2.6	4

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37	Temperature-dependent sensitivity in Pt/La <sub>2</sub> O <sub>3</sub> nanobelt Schottky interface hydrogen sensors. <i>Materials Research Bulletin</i> , 2019, 110, 174-180.	2.7	3
38	Three-Dimensional Graphene Structure for Healable Flexible Electronics Based on Diels-Alder Chemistry. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9727-9735.	4.0	44
39	Coupling Coefficient Reconfigurable Wideband Branch-Line Coupler Topology With Harmonic Suppression. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2018, 66, 1912-1920.	2.9	21
40	Loading the Third Harmonic: A Linear and Efficient Post-Matching Doherty PA. <i>IEEE Microwave Magazine</i> , 2018, 19, 99-105.	0.7	18
41	A New Class of Components for Simultaneous Power Splitting Over Microwave and Millimeter-Wave Frequency Bands. <i>IEEE Access</i> , 2018, 6, 146-158.	2.6	5
42	Postmatching Doherty Power Amplifier With Extended Back-Off Range Based on Self-Generated Harmonic Injection. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2018, 66, 1951-1963.	2.9	49
43	Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2018, 65, 1555-1566.	3.5	9
44	Morphology, stoichiometry, and crystal structure control via post-annealing for Pt-ZnO nanograin Schottky barrier interfaces. <i>Applied Surface Science</i> , 2018, 443, 506-514.	3.1	9
45	Determination of the Optimal Sensing Temperature in Pt-Ta <sub>2</sub> O <sub>5</sub> /MoO <sub>3</sub> Schottky Contacted Nanobelt Straddling Heterojunction. <i>Sensors</i> , 2018, 18, 3770.	2.1	7
46	A novel surface area to volume ratio estimation technique for nanohemisphere contacted Schottky barrier structures. <i>AIP Advances</i> , 2018, 8, 085311.	0.6	0
47	Broadband High Efficiency Post-matching Doherty Power Amplifier Based on Mixed-Topology. , 2018, , .		7
48	An Omni-Healable and Highly Sensitive Capacitive Pressure Sensor with Microarray Structure. <i>Chemistry - A European Journal</i> , 2018, 24, 16823-16832.	1.7	49
49	New Dual-/Tri-Band Bandpass Filters and Diplexer With Large Frequency Ratio. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2018, 66, 2978-2992.	2.9	46
50	Design of a Compact Wideband Butler Matrix Using Vertically Installed Planar Structure. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2018, 8, 1420-1430.	1.4	22
51	Ultra-sensitive fluorescent probes for hypochlorite acid detection and exogenous/endogenous imaging of living cells. <i>Chemical Communications</i> , 2018, 54, 7967-7970.	2.2	50
52	Coupling coefficient range extension technique for broadband branch-line coupler. <i>Journal of Electromagnetic Waves and Applications</i> , 2018, 32, 92-112.	1.0	2
53	Reaction-Based Off-On Near-infrared Fluorescent Probe for Imaging Alkaline Phosphatase Activity in Living Cells and Mice. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 6796-6803.	4.0	127
54	Broadband Efficiency-Enhanced Mutually Coupled Harmonic Postmatching Doherty Power Amplifier. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2017, 64, 1758-1771.	3.5	67

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55	A reaction-based near-infrared fluorescent sensor for Cu <sup>2+</sup> detection in aqueous buffer and its application in living cells and tissues imaging. <i>Biosensors and Bioelectronics</i> , 2017, 94, 24-29.	5.3	77
56	Solution-Processed Porous Tungsten Molybdenum Oxide Electrodes for Energy Storage Smart Windows. <i>Advanced Materials Technologies</i> , 2017, 2, 1700047.	3.0	48
57	Construction of an alkaline phosphatase-specific two-photon probe and its imaging application in living cells and tissues. <i>Biomaterials</i> , 2017, 140, 220-229.	5.7	57
58	Enhancement of Gas Sensitivity For MoO <sub>3</sub> Nanobelt Sensor by Thermionic Field Emission. , 2017, 1, 1-4.		0
59	An Equal-Length Multiway Differential Metamaterial Phase Shifter. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2017, 65, 136-146.	2.9	18
60	High-sensitivity low-power tungsten doped niobium oxide nanorods sensor for nitrogen dioxide air pollution monitoring. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 204-213.	4.0	20
61	Efficiency enhanced post-matching Doherty power amplifier based on modified phase compensation network. , 2017, , .		6
62	Recent Advances in Fluorescence Lifetime Analytical Microsystems: Contact Optics and CMOS Time-Resolved Electronics. <i>Sensors</i> , 2017, 17, 2800.	2.1	26
63	Bidirectional multi-level spatial coded exposure CMOS capacitive TIA pixel design. , 2016, , .		1
64	Nanostructured TiO <sub>2</sub> Schottky diode with large surface area for chemical sensors. , 2016, , .		0
65	Glove-based hand gesture recognition sign language translator using capacitive touch sensor. , 2016, , .		68
66	Nanoparticle-on-chip: A CMOS DNA analyzer. , 2016, , .		0
67	Compact band pass filter with controllable bandwidth based on low radiation spurâ€line defected ground structure. <i>Microwave and Optical Technology Letters</i> , 2016, 58, 2966-2968.	0.9	3
68	Tungsten-Doped Nb <sub>2</sub> O <sub>5</sub> Nanorod Sensor for Toxic and Combustible Gas Monitoring Applications. <i>IEEE Electron Device Letters</i> , 2016, 37, 1223-1226.	2.2	3
69	Design technique for meta-structure planar directional couplers with arbitrary coupling ratios. , 2016, , .		0
70	CMOS computational pixel for binary temporal optically encoded high-speed imaging. , 2016, , .		0
71	Exposure optimization for multi-bit quanta image sensor with ultra-small well capacity. , 2016, , .		0
72	MoO <sub>3</sub> nanoplatelets based Schottky diode for low-noise sensors in harsh environments. , 2016, , .		0

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73	CMOS Time-Resolved, Contact, and Multispectral Fluorescence Imaging for DNA Molecular Diagnostics. <i>Sensors</i> , 2014, 14, 20602-20619.	2.1	13
74	The Intersection of CMOS Microsystems and Upconversion Nanoparticles for Luminescence Bioimaging and Bioassays. <i>Sensors</i> , 2014, 14, 16829-16855.	2.1	11
75	Corrigendum on "Shape-controlled synthesis of organolead halide perovskite nanocrystals and their tunable optical absorption" (2014 <i>Mater. Res. Express</i> 1 015034). <i>Materials Research Express</i> , 2014, 1, 039501.	0.8	11
76	Shape-controlled synthesis of organolead halide perovskite nanocrystals and their tunable optical absorption. <i>Materials Research Express</i> , 2014, 1, 015034.	0.8	43
77	CMOS Tunable-Color Image Sensor With Dual-ADC Shot-Noise-Aware Dynamic Range Extension. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2013, 60, 2116-2129.	3.5	12
78	CMOS Spectrally-Multiplexed FRET-on-a-Chip for DNA Analysis. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2013, 7, 643-654.	2.7	23
79	CMOS Tunable-Wavelength Multi-Color Photogate Sensor. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2013, 7, 805-819.	2.7	9
80	Single-filter multi-color CMOS fluorescent contact sensing microsystem. , 2012, , .		4
81	CMOS 3-T digital pixel sensor with in-pixel shared comparator. , 2012, , .		2
82	CMOS field-modulated color sensor. , 2011, , .		5
83	A CMOS/Thin-Film Fluorescence Contact Imaging Microsystem for DNA Analysis. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2010, 57, 1029-1038.	3.5	56
84	A hybrid thin-film/CMOS fluorescence contact imager. , 2009, , .		3
85	Design Considerations for Sub-mW RF CMOS Low-Noise Amplifiers. , 2007, , .		4
86	Low-Voltage Low-Power Low-Noise Amplifier for Wireless Sensor Networks. , 2006, , .		4