

Edwin C Kan

List of Publications by Citations

Source: <https://exaly.com/author-pdf/4661687/edwin-c-kan-publications-by-citations.pdf>

Version: 2024-04-24

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76
papers

792
citations

14
h-index

26
g-index

98
ext. papers

950
ext. citations

5.1
avg, IF

4.69
L-index

#	Paper	IF	Citations
76	Self-assembly of metal nanocrystals on ultrathin oxide for nonvolatile memory applications. <i>Journal of Electronic Materials</i> , 2005 , 34, 1-11	1.9	175
75	Flash Memory for Ubiquitous Hardware Security Functions: True Random Number Generation and Device Fingerprints 2012 ,		65
74	3D real-time indoor localization via broadband nonlinear backscatter in passive devices with centimeter precision 2016 ,		60
73	Monitoring vital signs over multiplexed radio by near-field coherent sensing. <i>Nature Electronics</i> , 2018 , 1, 74-78	28.4	58
72	Simultaneous optical and electrical in vivo analysis of the enteric nervous system. <i>Nature Communications</i> , 2016 , 7, 11800	17.4	39
71	An extended Hückel theory based atomistic model for graphene nanoelectronics. <i>Journal of Computational Electronics</i> , 2008 , 7, 372-375	1.8	22
70	Fermi-Level Pinning in Nanocrystal Memories. <i>IEEE Electron Device Letters</i> , 2007 , 28, 103-106	4.4	21
69	Code Division Multiple Access in Centimeter Accuracy Harmonic RFID Locating System. <i>IEEE Journal of Radio Frequency Identification</i> , 2017 , 1, 51-58	2.4	20
68	No-touch measurements of vital signs in small conscious animals. <i>Science Advances</i> , 2019 , 5, eaau0169	14.3	20
67	Wearable radio-frequency sensing of respiratory rate, respiratory volume, and heart rate. <i>Npj Digital Medicine</i> , 2020 , 3, 98	15.7	19
66	Radio ranging with ultrahigh resolution using a harmonic radio-frequency identification system. <i>Nature Electronics</i> , 2019 , 2, 125-131	28.4	18
65	Harmonic-WISP: A passive broadband harmonic RFID platform 2016 ,		17
64	Programmable molecular orbital states of C60 from integrated circuits. <i>Applied Physics Letters</i> , 2006 , 89, 253113	3.4	16
63	Collaborative Reader Code Division Multiple Access in the Harmonic RFID System. <i>IEEE Journal of Radio Frequency Identification</i> , 2018 , 2, 86-92	2.4	14
62	Programmable ion-sensitive transistor interfaces. III. Design considerations, signal generation, and sensitivity enhancement. <i>Physical Review E</i> , 2014 , 89, 052817	2.4	13
61	Electrical transport in a two-dimensional electron and hole gas on a Si(001)($\sqrt{3}\times\sqrt{3}$) surface. <i>Physical Review B</i> , 2008 , 78,	3.3	13
60	Microwave Stethoscope for Heart Sound by Near-Field Coherent Sensing 2019 ,		11

59	A real-time spike classification method based on dynamic time warping for extracellular enteric neural recording with large waveform variability. <i>Journal of Neuroscience Methods</i> , 2016 , 261, 97-109	3	11
58	Multi-Point Near-Field RF Sensing of Blood Pressures and Heartbeat Dynamics. <i>IEEE Access</i> , 2020 , 8, 89935-89945	3.5	15
57	Sleep Scoring with a UHF RFID Tag by Near Field Coherent Sensing 2018 ,		10
56	Understanding sources of variations in flash memory for physical unclonable functions 2014 ,		10
55	An RF-to-DC Rectifier Based on Tunable Threshold Diodes. <i>IEEE Journal of Radio Frequency Identification</i> , 2019 , 3, 173-182	2.4	8
54	Nonvolatile memory with molecule-engineered tunneling barriers. <i>Applied Physics Letters</i> , 2008 , 92, 1531-1533	1.09	8
53	Seat Integration of RF Vital-Sign Monitoring 2019 ,		7
52	Ferroelectric-Assisted Dual-Switching Speed DRAM/Flash Hybrid Memory. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1944-1950	2.9	7
51	A Low-Power UWB-IR Transmitter by Tapered Nonlinear Transmission Lines. <i>IEEE Microwave and Wireless Components Letters</i> , 2012 , 22, 618-620	2.6	7
50	A Wearable RF Sensor for Monitoring Respiratory Patterns. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2019 , 2019, 1217-1223	0.9	6
49	Hiding Information in Flash Memory 2013 ,		6
48	A Wireless Wearable RF Sensor for Brumation Study of Chelonians. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2021 , 5, 17-24	2.8	6
47	Near-Field Coherent Sensing of Vibration With Harmonic Analysis and Balance Signal Injection. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2021 , 69, 1906-1916	4.1	5
46	Sharp Switching by Field-Effect Bandgap Modulation in All-Graphene Side-Gate Transistors. <i>IEEE Journal of the Electron Devices Society</i> , 2015 , 3, 144-148	2.3	4
45	Circuit Models for Ferroelectrics Part II: Analysis of FE-Nonvolatile Latches. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 637-642	2.9	4
44	Millimeter accuracy passive tag ranging via second harmonics RF backscattering against body movement interference 2014 ,		4
43	Microwave pulse generation using the Bragg cutoff of a nonlinear transmission line 2008 ,		4
42	Investigation on Process Dependence of Self-Assembled Metal Nanocrystals. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 737, 671		4

41	Ubiquitous tagless object locating with ambient harmonic tags 2016 ,		4
40	Furniture-Integrated Respiration Sensors by Notched Transmission Lines. <i>IEEE Sensors Journal</i> , 2021 , 21, 5303-5311	4	4
39	Non-logic Devices in Logic Processes 2017 ,		3
38	Non-Faradaic Electrochemical Detection of Exocytosis from Mast and Chromaffin Cells Using Floating-Gate MOS Transistors. <i>Scientific Reports</i> , 2015 , 5, 18477	4.9	3
37	Circuit Models for Ferroelectrics Part I: Physics of Polarization Switching. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 631-636	2.9	3
36	Accurate Extraction of Heartbeat Intervals with Near-Field Coherent Sensing 2018 ,		3
35	Mitigation of body movement interference in near-field coherent sensing for heartrate monitoring 2018 ,		3
34	An atomistic quantum transport solver with dephasing for field-effect transistors. <i>Journal of Computational Electronics</i> , 2008 , 7, 423-426	1.8	3
33	Metal nanocrystal/nitride heterogeneous-stack floating gate memory 2005 ,		3
32	High-Volume Parallel Mouse Vital-Sign Monitoring With Near-Field Coherent Sensing. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020 , 19, 1152-1156	3.8	2
31	Accurate indoor ranging by broadband passive NLTL tags 2013 ,		2
30	Low power nonvolatile SRAM circuit with integrated low voltage nanocrystal PMOS Flash 2010 ,		2
29	Interface and oxide quality of CoFeB/MgO/Si tunnel junctions. <i>Journal of Applied Physics</i> , 2012 , 111, 093908	2.9	2
28	Label-free electronic detection of growth factor induced cellular chatter on chemoreceptive neuron MOS (CvMOS) transistors 2009 ,		2
27	Flash Memory Scaling: From Material Selection to Performance Improvement. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1071, 1		2
26	Three-dimensional analytical modeling of nanocrystal memory electrostatics. <i>Journal of Applied Physics</i> , 2006 , 99, 114516	2.5	2
25	High-frequency permalloy permeability extracted from scattering parameters. <i>Journal of Applied Physics</i> , 2004 , 95, 7034-7036	2.5	2
24	Integrated On-chip Planar Solenoid Inductors with Patterned Permalloy Cores for High Frequency Applications. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 833, 107		2

23	Experimental Observation of Non-Volatile Charge Injection and Molecular Redox in Fullerenes C60 and C70 in an EEPROM-Type Device. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 830, 343		2
22	Integration of fullerenes and carbon nanotubes with aggressively scaled CMOS gate stacks. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 789, 205		2
21	Eluding Metal Contamination in CMOS Front-End Fabrication by Nanocrystal Formation Process. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 686, 1		2
20	Harmonic UHF RFID Ranging with 50-Micron Accuracy and 1-kHz Sampling Rate 2019 ,		1
19	Switching dynamics in ferroelectric-charge hybrid nonvolatile memory 2012 ,		1
18	Side-gate-controlled dual-mode power gating device by graphene nanoribbon transistor 2013 ,		1
17	A Low-Range Drift-Free Bio-compatible Pressure Sensor Based on P(VDF-TrFE) Piezoelectric Thin Film. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1222, 1		1
16	Transverse-field bandgap modulation on graphene nanoribbon transistors by double-self-aligned spacers 2012 ,		1
15	Space efficient CMOS nonlinear transmission lines 2009 ,		1
14	Material and electrical characterization of stackable planar polysilicon TFT flash memory cell with metal nanocrystals and high-k dielectrics 2008 ,		1
13	Modeling of Multi-layer Nanocrystal Memory. <i>Device Research Conference, IEEE Annual</i> , 2007 ,		1
12	Indoor Object Sensing Using Radio-Frequency Identification with Inverse Solutions 2020 ,		1
11	3-D Indoor Device-Free Object Detection by Passive Radio Frequency Identification. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021 , 70, 1-13	5.2	1
10	Wearable RF Near-Field Cough Monitoring by Frequency-Time Deep Learning. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2021 , 15, 756-764	5.1	1
9	. <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	1
8	Probing the Orbital Levels of Engineered Fullerenic Molecules from a Nonvolatile Memory Cell. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1286, 29		
7	Introduction to the Special Section on Electronic and Ionic Interfaces to Biomolecules and Cells. <i>IEEE Nanotechnology Magazine</i> , 2010 , 9, 268-268	2.6	
6	Thermal and Pressure Sensing by Chemoreceptive Neuron MOS Transistors (CMOS) with PVDF Coating. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 952, 8		

- 5 Characterization of Number Fluctuations in Gate-last Metal Nanocrystal Nonvolatile Memory Array beyond 90nm CMOS Technology. *Materials Research Society Symposia Proceedings*, **2004**, 830, 225
- 4 A Critical Examination of the Basis of Macroscopic Quantum Transport Approaches. *Journal of Computational Electronics*, **2004**, 3, 435-438 1.8
- 3 Band-to-Band Tunneling by Monte Carlo Simulation for Prediction of MOSFET Gate-Induced Drain Leakage Current. *Journal of Computational Electronics*, **2002**, 1, 223-226 1.8
- 2 The Effect of Gate Geometry on the Charging Characteristics of Metal Nanocrystal Memories. *Materials Research Society Symposia Proceedings*, **2003**, 789, 258
- 1 Eluding Metal Contamination in CMOS Front-End Fabrication by Nanocrystal Formation Process. *Materials Research Society Symposia Proceedings*, **2001**, 707, 531