Ruonan Han

List of Publications by Citations

44 papers	1,066 citations	17 h-index	32 g-index
48 ext. papers	1,400 ext. citations	5.8 avg, IF	4.8 L-index

#	Paper	IF	Citations
44	Active Terahertz Imaging Using Schottky Diodes in CMOS: Array and 860-GHz Pixel. *IEEE Journal of Solid-State Circuits*, **2013**, 48, 2296-2308	5.5	170
43	A CMOS High-Power Broadband 260-GHz Radiator Array for Spectroscopy. *IEEE Journal of Solid-State Circuits*, **2013**, 48, 3090-3104	5.5	125
42	A 280-GHz Schottky Diode Detector in 130-nm Digital CMOS. *IEEE Journal of Solid-State Circuits*, **2011**, 46, 2602-2612	5.5	115
41	A SiGe Terahertz Heterodyne Imaging Transmitter With 3.3 mW Radiated Power and Fully-Integrated Phase-Locked Loop. *IEEE Journal of Solid-State Circuits*, **2015**, 50, 2935-2947	5.5	91
40	. *IEEE Journal of Solid-State Circuits*, **2018**, 53, 1313-1327	5.5	56
39	A CMOS-integrated quantum sensor based on nitrogen□acancy centres. *Nature Electronics*, **2019**, 2, 284-289	28.4	44
38	A Fully Integrated 320 GHz Coherent Imaging Transceiver in 130 nm SiGe BiCMOS. *IEEE Journal of Solid-State Circuits*, **2016**, 51, 2596-2609	5.5	42
37	Dual-Terahertz-Comb Spectrometer on CMOS for Rapid, Wide-Range Gas Detection With Absolute Specificity. *IEEE Journal of Solid-State Circuits*, **2017**, 52, 3361-3372	5.5	38
36	**2009**,		38
35	Molecular Detection for Unconcentrated Gas With ppm Sensitivity Using 220-to-320-GHz Dual-Frequency-Comb Spectrometer in CMOS. *IEEE Transactions on Biomedical Circuits and Systems*, **2018**, 12, 709-721	5.1	34
34	Opening Terahertz for Everyday Applications. *IEEE Communications Magazine*, **2019**, 57, 70-76	9.1	33
33	A High-Power Broadband Passive Terahertz Frequency Doubler in CMOS. *IEEE Transactions on Microwave Theory and Techniques*, **2013**, 61, 1150-1160	4.1	30
32	A Fully Integrated Broadband Sub-mmWave Chip-to-Chip Interconnect. *IEEE Transactions on Microwave Theory and Techniques*, **2017**, 65, 2373-2386	4.1	29
31	Filling the Gap: Silicon Terahertz Integrated Circuits Offer Our Best Bet. *IEEE Microwave Magazine*, **2019**, 20, 80-93	1.2	26
30	A 32-Unit 240-GHz Heterodyne Receiver Array in 65-nm CMOS With Array-Wide Phase Locking. *IEEE Journal of Solid-State Circuits*, **2019**, 54, 1216-1227	5.5	17
29	An on-chip fully electronic molecular clock based on sub-terahertz rotational spectroscopy. *Nature Electronics*, **2018**, 1, 421-427	28.4	17
28	A 220-to-320-GHz FMCW Radar in 65-nm CMOS Using a Frequency-Comb Architecture. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 327-339	5.5	17

27	**2017**,		14
26	Innovations in Terahertz Interconnects: High-Speed Data Transport Over Fully Electrical Terahertz Waveguide Links. *IEEE Microwave Magazine*, **2020**, 21, 35-50	1.2	14
25	A broadband 480-GHz passive frequency doubler in 65-nm bulk CMOS with 0.23mW output power **2012**,		11
24	Broadband Root-Mean-Square Detector in CMOS for On-Chip Measurements of Millimeter-Wave Voltages. *IEEE Electron Device Letters*, **2012**, 33, 752-754	4.4	11
23	220-to-330-GHz Manifold Triplexer With Wide Stopband Utilizing Ridged Substrate Integrated Waveguides. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 3428-3438	4.1	8
22	Chip-Scale Molecular Clock. *IEEE Journal of Solid-State Circuits*, **2019**, 54, 914-926	5.5	8
21	. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 1001-1014	5.5	8
20	**2020**,		7
19	A CMOS Molecular Clock Probing 231.061-GHz Rotational Line of OCS with Sub-PPB Long-Term Stability and 66-MW DC Power **2018**,		7
18	. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2021**, 68, 3537-3550	3.9	7
17	. *IEEE Solid-State Circuits Magazine*, **2019**, 11, 33-42	1.5	6
16	CMOS THz-ID: A 1.6-mm□Package-Less Identification Tag Using Asymmetric Cryptography and 260-GHz Far-Field Backscatter Communication. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 340-354	5.5	6
15	29.8 THzID: A 1.6mm2 Package-Less Cryptographic Identification Tag with Backscattering and Beam-Steering at 260GHz **2020**,		5
14	Fully-scalable 2D THz radiating array: A 42-element source in 130-nm SiGe with 80-□W total radiated power at 1.01 THz **2017**,		5
13	A 0.31-THz Orbital-Angular-Momentum (OAM) Wave Transceiver in CMOS With Bits-to-OAM Mode Mapping. *IEEE Journal of Solid-State Circuits*, **2022**, 1-1	5.5	5
12	A High-Efficiency 142-182-GHz SiGe BiCMOS Power Amplifier With Broadband Slotline-Based Power Combining Technique. *IEEE Journal of Solid-State Circuits*, **2021**, 1-1	5.5	4
11	**2019**,		3
10	. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 566-580	5.5	3

9	Room-Temperature Quantum Sensing in CMOS: On-Chip Detection of Electronic Spin States in Diamond Color Centers for Magnetometry **2018**,		3
8	. *IEEE Transactions on Terahertz Science and Technology*, **2019**, 9, 349-363	3.4	2
7	Terahertz image sensors using CMOS Schottky barrier diodes **2012**,		2
6	A 3.4–4.6GHz In-Band Full-Duplex Front-End in CMOS Using a Bi-Directional Frequency Converter **2020**,		2
5	**2020**,		1
4	Large-scale terahertz active arrays in silicon using highly-versatile electromagnetic structures **2017**,		1
3	Realization of In-Band Full-Duplex Operation at 300 and 4.2 K Using Bilateral Single-Sideband Frequency Conversion. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 1387-1397	5.5	0
2	IMS2019 Hackathon: Everyday Microwave. *IEEE Microwave Magazine*, **2019**, 20, 54-54	1.2	
1	Erratum to "High-Power Radiation at 1 THz in Silicon: A Fully Scalable Array Using a Multi-Functional Radiating Mesh Structure" *IEEE Journal of Solid-State Circuits*, **2021**, 56, 3202-3202	5.5	