John D Cressler

List of Publications by Year in Descending Order

275 papers	2,918 citations	25 h-index	35 g-index
297 ext. papers	3,615 ext. citations	2.1 avg, IF	5.25 L-index

#	Paper	IF	Citations
275	Single-Event Transients in a Commercially-Available, Integrated Germanium Photodiode for Silicon Photonic Systems. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7	
274	Total-Ionizing-Dose Response of SiGe HBTs at Elevated Temperatures. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7	
273	Voltage-Controlled Oscillator Utilizing Inverse-Mode SiGe-HBT Biasing Circuit for the Mitigation of Single-Event Effects. *IEEE Transactions on Nuclear Science*, **2022**, 1-1	1.7	
272	An Efficient, Broadband SiGe HBT Non-Uniform Distributed Power Amplifier Leveraging a Compact, Two-Section 74 Output Impedance Transformer. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 1-1	4.1	1
271	A 24 GHz SiGe HBT Cascode Non-uniform Distributed Power Amplifier Using A Compact, Wideband Two-Section Lumped Element Output Impedance Transformer **2021**,		1
270	Modeling Transient Loss Due to Ionizing Particles in Silicon Photonic Waveguides. *IEEE Transactions on Nuclear Science*, **2021**, 1-1	1.7	
269	Using Machine Learning to Mitigate Single-Event Upsets in RF Circuits and Systems. *IEEE Transactions on Nuclear Science*, **2021**, 1-1	1.7	
268	A Millimeter-Wave, Transformer-Based, SiGe Distributed Attenuator. *IEEE Microwave and Wireless Components Letters*, **2021**, 1-4	2.6	1
267	Response of Integrated Silicon Microwave pin Diodes to X-ray and Fast-Neutron Irradiation. *IEEE Transactions on Nuclear Science*, **2021**, 1-1	1.7	
266	Operation of Current Mirrors in SiGe BiCMOS Technology at Cryogenic Temperatures. *IEEE Transactions on Electron Devices*, **2021**, 68, 1439-1445	2.9	1
265	A New Emitter-Base-Collector-Base-Emitter SiGe HBT for High Power, Single-Pole Double-Throw X-Band Switches. *IEEE Electron Device Letters*, **2021**, 42, 465-468	4.4	1
264	Integrated Silicon Photonics for Enabling Next-Generation Space Systems. *Photonics*, **2021**, 8, 131	2.2	5
263	Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *IEEE Transactions on Nuclear Science*, **2021**, 68, 785-792	1.7	8
262	Millimeter-Wave SiGe Radiometer Front End With Transformer-Based Dicke Switch and On-Chip Calibration Noise Source. *IEEE Journal of Solid-State Circuits*, **2021**, 56, 1464-1474	5.5	4
261	Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *IEEE Transactions on Nuclear Science*, **2021**, 68, 949-957	1.7	4
260	Design Methodology for a Wideband, Low Insertion Loss, Digital Step Attenuator in SiGe BiCMOS Technology. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2021**, 1-1	3.5	1
259	Triaxial Balun With Inherent Harmonic Reflection for Millimeter-Wave Frequency Doublers. *IEEE Transactions on Microwave Theory and Techniques*, **2021**, 1-1	4.1	1

258	Variability of p-n Junctions and SiGe HBTs at Cryogenic Temperatures. *IEEE Transactions on Electron Devices*, **2021**, 68, 987-993	2.9	2
257	A 60-GHz SiGe Power Amplifier With Three-Conductor Transmission-Line-Based Wilkinson Baluns and Asymmetric Directional Couplers. *IEEE Transactions on Microwave Theory and Techniques*, **2021**, 69, 709-722	4.1	2
256	A Two-Way Wideband Active SiGe BiCMOS Power Divider/Combiner for Reconfigurable Phased Arrays With Controllable Beam Width. *IEEE Access*, **2020**, 8, 2578-2589	3.5	2
255	Tradeoffs Between RF Performance and SET Robustness in Low-Noise Amplifiers in a Complementary SiGe BiCMOS Platform. *IEEE Transactions on Nuclear Science*, **2020**, 67, 1521-1529	1.7	2
254	A 60-GHz SiGe Radiometer Calibration Switch Utilizing a Coupled Avalanche Noise Source. *IEEE Microwave and Wireless Components Letters*, **2020**, 30, 417-420	2.6	11
253	Highly Linear High-Power 802.11ac/ax WLAN SiGe HBT Power Amplifiers With a Compact 2nd-Harmonic-Shorted Four-Way Transformer and a Thermally Compensating Dynamic Bias Circuit. *IEEE Journal of Solid-State Circuits*, **2020**, 55, 2356-2370	5.5	8
252	. *IEEE Transactions on Nuclear Science*, **2020**, 67, 296-304	1.7	5
251	Comparison of Single-Event Transients in SiGe HBTs on Bulk and Thick-Film SOI. *IEEE Transactions on Nuclear Science*, **2020**, 67, 71-80	1.7	4
250	New Approach for Pulsed-Laser Testing That Mimics Heavy-Ion Charge Deposition Profiles. *IEEE Transactions on Nuclear Science*, **2020**, 67, 81-90	1.7	12
249	Electronic-to-Photonic Single-Event Transient Propagation in a Segmented Mach□ehnder Modulator in a Si/SiGe Integrated Photonics Platform. *IEEE Transactions on Nuclear Science*, **2020**, 67, 260-267	1.7	1
248	Single-Event Transients in SiGe HBTs Induced by Pulsed X-Ray Microbeam. *IEEE Transactions on Nuclear Science*, **2020**, 67, 91-98	1.7	
247	A D-band SiGe Frequency Doubler with a Harmonic Reflector Embedded in a Triaxial Balun **2020**,		2
246	Investigation of fT-Doubler Technique to Improve RF Performance of Inverse-Mode SiGe HBTs. *IEEE Microwave and Wireless Components Letters*, **2020**, 30, 873-875	2.6	1
245	A New Wideband, Low Insertion Loss, High Linearity SiGe RF Switch. *IEEE Microwave and Wireless Components Letters*, **2020**, 30, 985-988	2.6	7
244	Dual-Band Millimeter-Wave Quadrature LO Generation With a Common-Centroid Floorplan. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2020**, 67, 260-264	3.5	1
243	A Compact, High-Power, 60 GHz SPDT Switch Using Shunt-Series SiGe PIN Diodes **2019**,		2
242	Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform. *IEEE Transactions on Nuclear Science*, **2019**, 66, 125-133	1.7	10
241	High energy swift heavy ion irradiation and annealing effects on DC electrical characteristics of 200 GHz SiGe HBTs. *Nuclear Engineering and Technology*, **2019**, 51, 1428-1435	2.6	2

240	Using Bessel beams and two-photon absorption to predict radiation effects in microelectronics. *Optics Express*, **2019**, 27, 37652-37666	3.3	7
239	DC and RF Variability of SiGe HBTs Operating Down to Deep Cryogenic Temperatures **2019**,		4
238	Optimizing Optical Parameters to Facilitate Correlation of Laser- and Heavy-Ion-Induced Single-Event Transients in SiGe HBTs. *IEEE Transactions on Nuclear Science*, **2019**, 66, 359-367	1.7	14
237	The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology. *IEEE Transactions on Nuclear Science*, **2019**, 66, 389-396	1.7	
236	Best Practices for Using Electrostatic Discharge Protection Techniques for Single-Event Transient Mitigation. *IEEE Transactions on Nuclear Science*, **2019**, 66, 240-247	1.7	3
235	Single-Event Upset Mitigation in a Complementary SiGe HBT BiCMOS Technology. *IEEE Transactions on Nuclear Science*, **2018**, 65, 231-238	1.7	3
234	Limiting Effects on the Design of Vertical Superjunction Collectors in SiGe HBTs. *IEEE Transactions on Electron Devices*, **2018**, 65, 793-797	2.9	
233	A Highly Efficient X-Band Inverse Class-F SiGe HBT Cascode Power Amplifier With Harmonic-Tuned Wilkinson Power Combiner. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2018**, 65, 1609-1613	3.5	5
232	p-n-p-Based RF Switches for the Mitigation of Single-Event Transients in a Complementary SiGe BiCMOS Platform. *IEEE Transactions on Nuclear Science*, **2018**, 65, 391-398	1.7	5
231	Utilizing SiGe HBT Power Detectors for Sensing Single-Event Transients in RF Circuits. *IEEE Transactions on Nuclear Science*, **2018**, 65, 239-248	1.7	4
230	An Electrostatic Discharge Protection Circuit Technique for the Mitigation of Single-Event Transients in SiGe BiCMOS Technology. *IEEE Transactions on Nuclear Science*, **2018**, 65, 426-431	1.7	3
229	Design and Analysis of a Low Loss, Wideband Digital Step Attenuator With Minimized Amplitude and Phase Variations. *IEEE Journal of Solid-State Circuits*, **2018**, 53, 2202-2213	5.5	28
228	Hot-Carrier-Damage-Induced Current Gain Enhancement (CGE) Effects in SiGe HBTs. *IEEE Transactions on Electron Devices*, **2018**, 65, 2430-2438	2.9	7
227	Experimental Validation of an Equivalent LET Approach for Correlating Heavy-Ion and Laser-Induced Charge Deposition. *IEEE Transactions on Nuclear Science*, **2018**, 65, 1724-1733	1.7	18
226	A Compact Highly Efficient High-Power Ka-band SiGe HBT Cascode Frequency Doubler With Four-Way Input Transformer Balun. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 2879-2887	4.1	9
225	Collector Transport in SiGe HBTs Operating at Cryogenic Temperatures. *IEEE Transactions on Electron Devices*, **2018**, 65, 3697-3703	2.9	9
224	Potential Limitations on Integrated Silicon Photonic Waveguides Operating in a Heavy Ion Environment. *IEEE Transactions on Nuclear Science*, **2018**, 65, 141-148	1.7	12
223	SiGe HBT Profiles With Enhanced Inverse-Mode Operation and Their Impact on Single-Event Transients. *IEEE Transactions on Nuclear Science*, **2018**, 65, 399-406	1.7	6

222	A True Time Delay-based SiGe Bi-directional T/R Chipset for Large-Scale Wideband Timed Array Antennas **2018**,		14
221	Next Generation of Automotive Radar with Leading-Edge Advances in SiGe Devices and Glass Panel Embedding (GPE) **2018**,		2
220	. *IEEE Transactions on Device and Materials Reliability*, **2018**, 18, 613-619	1.6	
219	A Ka -Band SiGe Bootstrapped Gilbert Frequency Doubler With 26.2% PAE. *IEEE Microwave and Wireless Components Letters*, **2018**, 28, 1122-1124	2.6	6
218	Revisiting Safe Operating Area: SiGe HBT Aging Models for Reliability-Aware Circuit Design **2018**,		1
217	A V-Band SiGe Image-Reject Receiver Front-End for Atmospheric Remote Sensing **2018**,		4
216	A Low-Loss Broadband Quadrature Signal Generation Network for High Image Rejection at Millimeter-Wave Frequencies. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 5336-5346	4.1	8
215	. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 3866-3876	4.1	7
214	On the Application of Inverse-Mode SiGe HBTs in RF Receivers for the Mitigation of Single-Event Transients. *IEEE Transactions on Nuclear Science*, **2017**, 64, 1142-1150	1.7	7
213	Modeling Single-Event Transient Propagation in a SiGe BiCMOS Direct-Conversion Receiver. *IEEE Transactions on Nuclear Science*, **2017**, 1-1	1.7	3
212	A 0.3–15 GHz SiGe LNA With >1 THz Gain-Bandwidth Product. *IEEE Microwave and Wireless Components Letters*, **2017**, 27, 380-382	2.6	10
211	Operation of SiGe HBTs Down to 70 mK. *IEEE Electron Device Letters*, **2017**, 38, 12-15	4.4	18
210	Single-Event Effects in High-Frequency Linear Amplifiers: Experiment and Analysis. *IEEE Transactions on Nuclear Science*, **2017**, 64, 125-132	1.7	3
209	. *IEEE Transactions on Nuclear Science*, **2017**, 64, 406-414	1.7	16
208	Physical Differences in Hot Carrier Degradation of Oxide Interfaces in Complementary (n-p-n+p-n-p) SiGe HBTs. *IEEE Transactions on Electron Devices*, **2017**, 64, 37-44	2.9	7
207	Using TCAD Modeling to Compare Heavy-Ion and Laser-Induced Single Event Transients in SiGe HBTs. *IEEE Transactions on Nuclear Science*, **2017**, 64, 398-405	1.7	20
206	Single-Event Effects in a Millimeter-Wave Receiver Front-End Implemented in 90 nm, 300 GHz SiGe HBT Technology. *IEEE Transactions on Nuclear Science*, **2017**, 64, 536-543	1.7	4
205	An X-band inverse class-F SiGe HBT cascode power amplifier With harmonic-tuned output transformer **2017**,		4

204	. *IEEE Transactions on Electron Devices*, **2017**, 64, 3748-3755	2.9	3
203	**2017**,		2
202	Total Ionizing Dose Effects on a High-Voltage (>30V) Complementary SiGe on SOI Technology. *IEEE Transactions on Nuclear Science*, **2017**, 64, 277-284	1.7	4
201	Single-Event Transient Response of Comparator Pre-Amplifiers in a Complementary SiGe Technology. *IEEE Transactions on Nuclear Science*, **2017**, 64, 89-96	1.7	7
200	The Use of Inverse-Mode SiGe HBTs as Active Gain Stages in Low-Noise Amplifiers for the Mitigation of Single-Event Transients. *IEEE Transactions on Nuclear Science*, **2017**, 64, 359-366	1.7	5
199	Wideband active bi-directional SiGe digital step attenuator using an active DPDT switch **2016**,		1
198	Modeling of high-current damage in SiGe HBTs under pulsed stress **2016**,		3
197	A Physics-Based Circuit Aging Model for Mixed-Mode Degradation in SiGe HBTs. *IEEE Transactions on Electron Devices*, **2016**, 63, 2987-2993	2.9	12
196	An Active Bi-Directional SiGe DPDT Switch With Multi-Octave Bandwidth. *IEEE Microwave and Wireless Components Letters*, **2016**, 26, 279-281	2.6	9
195	An Investigation of Single-Event Effect Modeling Techniques for a SiGe RF Low-Noise Amplifier. *IEEE Transactions on Nuclear Science*, **2016**, 63, 273-280	1.7	9
194	The effects of total ionizing dose on the transient response of SiGe BiCMOS technologies **2016**,		1
193	SiGe Technology as a Millimeter-Wave Platform: Scaling Issues, Reliability Physics, Circuit Performance, and New Opportunities **2016**,		3
192	A SiGe-BiCMOS Wideband (2⍰2 GHz) Active Power Divider/Combiner Circuit Supporting Bidirectional Operation. *IEEE Transactions on Microwave Theory and Techniques*, **2016**, 64, 4676-4684	4.1	10
191	An Investigation of the Use of Inverse-Mode SiGe HBTs as Switching Pairs for SET-Mitigated RF Mixers. *IEEE Transactions on Nuclear Science*, **2016**, 63, 1099-1108	1.7	11
190	A Compact, Wideband Lumped-Element Wilkinson Power Divider/Combiner Using Symmetric Inductors with Embedded Capacitors. *IEEE Microwave and Wireless Components Letters*, **2016**, 26, 595-597	2.6	10
189	Design and On-Wafer Characterization of G -Band SiGe HBT Low-Noise Amplifiers. *IEEE Transactions on Microwave Theory and Techniques*, **2016**, 64, 3631-3642	4.1	15
188	Inverse class-F X-band SiGe HBT power amplifier with 44% PAE and 24.5 dBm peak output power. *Microwave and Optical Technology Letters*, **2016**, 58, 2868-2871	1.2	1
187	On the Cryogenic RF Linearity of SiGe HBTs in a Fourth-Generation 90-nm SiGe BiCMOS Technology. *IEEE Transactions on Electron Devices*, **2015**, 62, 1127-1135	2.9	5

186	Bias- and Temperature-Dependent Accumulated Stress Modeling of Mixed-Mode Damage in SiGe HBTs. *IEEE Transactions on Electron Devices*, **2015**, 62, 2084-2091	2.9	13
185	A Comparison of Field and Current-Driven Hot-Carrier Reliability in NPN SiGe HBTs. *IEEE Transactions on Electron Devices*, **2015**, 62, 2244-2250	2.9	11
184	. *IEEE Transactions on Electron Devices*, **2015**, 62, 1383-1389	2.9	20
183	A Comparison of the Degradation in RF Performance Due to Device Interconnects in Advanced SiGe HBT and CMOS Technologies. *IEEE Transactions on Electron Devices*, **2015**, 62, 1803-1810	2.9	30
182	The reliability studies of nano-engineered SiGe HBTs using Pelletron accelerator **2015**,		1
181	A Class-E Tuned W-Band SiGe Power Amplifier With 40.4% Power-Added Efficiency at 93 GHz. *IEEE Microwave and Wireless Components Letters*, **2015**, 25, 663-665	2.6	20
180	A W-band integrated silicon-germanium loop-back and front-end transmit-receive switch for Built-in-self-test **2015**,		3
179	Wide temperature range SiGe HBT noise parameter modeling and LNA design for extreme environment Electronics. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **2015**, 28, 675-683	1	3
178	Optimization of SiGe HBT RF Switches for Single-Event Transient Mitigation. *IEEE Transactions on Nuclear Science*, **2015**, 62, 3057-3063	1.7	7
177	An Investigation of the SET Response of Devices and Differential Pairs in a 32-nm SOI CMOS Technology. *IEEE Transactions on Nuclear Science*, **2015**, 62, 2643-2649	1.7	1
176	Optimizing the vertical profile of SiGe HBTs to mitigate radiation-induced upsets **2015**,		3
175	Single-Event Effects in a W-Band (75-110 GHz) Radar Down-Conversion Mixer Implemented in 90 nm, 300 GHz SiGe HBT Technology. *IEEE Transactions on Nuclear Science*, **2015**, 62, 2657-2665	1.7	8
174	The Role of Negative Feedback Effects on Single-Event Transients in SiGe HBT Analog Circuits. *IEEE Transactions on Nuclear Science*, **2015**, 62, 2599-2605	1.7	2
173	A SiGe D-Band Low-Noise Amplifier Utilizing Gain-Boosting Technique. *IEEE Microwave and Wireless Components Letters*, **2015**, 25, 61-63	2.6	16
172	80 MeV Carbon Ion Irradiation Effects On Advanced 200 GHz Silicon-germanium Heterojunction Bipolar Transitors. *Advanced Materials Letters*, **2015**, 6, 120-126	2.4	5
171	Hot-Carrier Degradation in Silicon-Germanium Heterojunction Bipolar Transistors **2015**, 371-398		3
170	. *IEEE Transactions on Nuclear Science*, **2014**, 61, 756-765	1.7	9
169	A Low-Loss and High Isolation D-Band SPDT Switch Utilizing Deep-Saturated SiGe HBTs. *IEEE Microwave and Wireless Components Letters*, **2014**, 24, 400-402	2.6	24

168	On the Analysis and Design of Low-Loss Single-Pole Double-Throw W-Band Switches Utilizing Saturated SiGe HBTs. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 2755-2767	4.1	80
167	Advanced SiGe BiCMOS Technology for Multi-Mrad Electronic Systems. *IEEE Transactions on Device and Materials Reliability*, **2014**, 14, 844-848	1.6	15
166	A switchable-core SiGe HBT low-noise amplifier for millimeter-wave radiometer applications **2014**,		2
165	A 94 GHz, 1.4 dB Insertion Loss Single-Pole Double-Throw Switch Using Reverse-Saturated SiGe HBTs. *IEEE Microwave and Wireless Components Letters*, **2014**, 24, 56-58	2.6	25
164	A SiGe 8□8-GHz Receiver With Built-In-Testing Capability for Self-Healing Applications. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 2370-2380	4.1	8
163	Impact of Technology Scaling in sub-100 nm nMOSFETs on Total-Dose Radiation Response and Hot-Carrier Reliability. *IEEE Transactions on Nuclear Science*, **2014**, 61, 1426-1432	1.7	13
162	**2014**,		13
161	A 0.8 THz $f_{rm MAX}$ SiGe HBT Operating at 4.3 K. *IEEE Electron Device Letters*, **2014**, 35, 151-153	4.4	47
160	Impact of Total Ionizing Dose on a 4th Generation, 90 nm SiGe HBT Gaussian Pulse Generator. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3050-3054	1.7	8
159	Single-Event Transient and Total Dose Response of Precision Voltage Reference Circuits Designed in a 90-nm SiGe BiCMOS Technology. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3210-3217	1.7	14
158	W-band SiGe power amplifiers **2014**,		8
157	An Investigation of Single-Event Transients in C-SiGe HBT on SOI Current Mirror Circuits. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3193-3200	1.7	11
156	**2014**,		4
155	Evaluation of Enhanced Low Dose Rate Sensitivity in Fourth-Generation SiGe HBTs. *IEEE Transactions on Nuclear Science*, **2014**, 61, 2915-2922	1.7	11
154	On the Transient Response of a Complementary (npn $+$ pnp) SiGe HBT BiCMOS Technology. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3146-3153	1.7	11
153	Design of Radiation-Hardened RF Low-Noise Amplifiers Using Inverse-Mode SiGe HBTs. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3218-3225	1.7	26
152	Mitigation of Total Dose Performance Degradation in an 8□8 GHz SiGe Reconfigurable Receiver. *IEEE Transactions on Nuclear Science*, **2014**, 61, 3226-3235	1.7	1
151	A digitally-controlled seven-state X-band SiGe variable gain low noise amplifier **2014**,		2

150	A 1.0 V, 10–12 GHz, 4 mW LNA Utilizing Weakly Saturated SiGe HBTs for Single-Chip, Low-Power, Remote Sensing Applications. *IEEE Microwave and Wireless Components Letters*, **2014**, 24, 890-892	2.6	11
149	A Comparison of Hot Carrier and 50 MeV Li3+ Ion Induced Degradation in the Electrical Characteristics of Advanced 200 GHz SiGe HBT. *Environmental Science and Engineering*, **2014**, 113-116	0.2	
148	An Investigation of Single Event Transient Response in 45-nm and 32-nm SOI RF-CMOS Devices and Circuits. *IEEE Transactions on Nuclear Science*, **2013**, 60, 4405-4411	1.7	13
147	In situ investigation of 75 MeV boron and 100 MeV oxygen ion irradiation effects on 50 GHz silicon–germanium heterojunction bipolar transistors. *Radiation Effects and Defects in Solids*, **2013**, 168, 620-624	0.9	5
146	TCAD modeling of accumulated damage during time-dependent mixed-mode stress **2013**,		6
145	A design methodology to achieve low input impedance and non-constant gain-bandwidth product in TIAs for optical communication **2013**,		2
144	An Investigation on the Optimization and Scaling of Complementary SiGe HBTs. *IEEE Transactions on Electron Devices*, **2013**, 60, 34-41	2.9	3
143	Radiation Effects in SiGe Technology. *IEEE Transactions on Nuclear Science*, **2013**, 60, 1992-2014	1.7	103
142	Integrated, digitally controlled, 64-element SiGe on multilayer organic X-band phased-array receiver antenna for snow measurements. *IEEE Aerospace and Electronic Systems Magazine*, **2013**, 28, 26-39	2.4	1
141	Total Ionizing Dose Response of Triple-Well FET-Based Wideband, High-Isolation RF Switches in a 130 nm SiGe BiCMOS Technology. *IEEE Transactions on Nuclear Science*, **2013**, 60, 2567-2573	1.7	11
140	An Investigation of Single-Event Effects and Potential SEU Mitigation Strategies in Fourth-Generation, 90 nm SiGe BiCMOS. *IEEE Transactions on Nuclear Science*, **2013**, 60, 4175-4183	1.7	17
139	A compact, transformer-based 60 GHz SPDT RF switch utilizing diode-connected SiGe HBTs **2013**,		8
138	Integrated silicon-germanium electronics for CubeSat-based radiometers **2013**,		5
137	Reliability studies on NPN RF power transistors under swift heavy ion irradiation. *Nuclear Instruments & Methods in Physics Research B*, **2012**, 273, 36-39	1.2	15
136	Application of a Pelletron accelerator to study total dose radiation effects on 50 GHz SiGe HBTs. *Nuclear Instruments & Methods in Physics Research B*, **2012**, 273, 43-46	1.2	19
135	Total Dose and Transient Response of SiGe HBTs from a New 4th-Generation, 90 nm SiGe BiCMOS Technology **2012**,		15
134	A new approach to designing electronic systems for operation in extreme environments: Part I - The SiGe Remote Sensor Interface. *IEEE Aerospace and Electronic Systems Magazine*, **2012**, 27, 25-34	2.4	11
133	An 8–16 GHz SiGe Low Noise Amplifier With Performance Tuning Capability for Mitigation of Radiation-Induced Performance Loss. *IEEE Transactions on Nuclear Science*, **2012**, 59, 2837-2846	1.7	25

132	An Ultra-Thin, High-Power, and Multilayer Organic Antenna Array With T/R Functionality in the X-Band. *IEEE Transactions on Microwave Theory and Techniques*, **2012**, 60, 3856-3867	4.1	7
131	A 6□0 GHz Adaptive SiGe Image Reject Mixer for a Self-Healing Receiver. *IEEE Journal of Solid-State Circuits*, **2012**, 47, 1998-2006	5.5	14
130	Single-Event Response of the SiGe HBT Operating in Inverse-Mode. *IEEE Transactions on Nuclear Science*, **2012**, 59, 2682-2690	1.7	17
129	A New Self-Healing Methodology for RF Amplifier Circuits Based on Oscillation Principles. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2012**, 20, 1835-1848	2.6	31
128	Predictive Physics-Based TCAD Modeling of the Mixed-Mode Degradation Mechanism in SiGe HBTs. *IEEE Transactions on Electron Devices*, **2012**, 59, 2895-2901	2.9	28
127	**2012**,		11
126	Establishing Best-Practice Modeling Approaches for Understanding Single-Event Transients in Gb/s SiGe Digital Logic. *IEEE Transactions on Nuclear Science*, **2012**, 59, 958-964	1.7	9
125	Accurate Modeling of Single-Event Transients in a SiGe Voltage Reference Circuit. *IEEE Transactions on Nuclear Science*, **2011**, 58, 877-884	1.7	10
124	A Lightweight Organic X-Band Active Receiving Phased Array With Integrated SiGe Amplifiers and Phase Shifters. *IEEE Transactions on Antennas and Propagation*, **2011**, 59, 100-109	4.9	21
123	A Study of Total Dose Mitigation Approaches for Charge Pumps in Phase-Locked Loop Applications. *IEEE Transactions on Nuclear Science*, **2011**, 58, 3038-3045	1.7	4
122	Design and Optimization of Superjunction Collectors for Use in High-Speed SiGe HBTs. *IEEE Transactions on Electron Devices*, **2011**, 58, 1655-1662	2.9	11
121	An Investigation of DC and RF Safe Operating Area of n-p-n $+$ p-n-p SiGe HBTs on SOI. *IEEE Transactions on Electron Devices*, **2011**, 58, 2573-2581	2.9	8
120	Trade-Offs Between RF Performance and Total-Dose Tolerance in 45-nm RF-CMOS. *IEEE Transactions on Nuclear Science*, **2011**, 58, 2830-2837	1.7	16
119	Wide temperature range compact modeling of SiGe HBTs for space applications **2011**,		5
118	Design of a 250-Gbit/s SiGe HBT Electrooptic Modulator. *IEEE Photonics Journal*, **2011**, 3, 897-914	1.8	4
117	On the RF Properties of Weakly Saturated SiGe HBTs and Their Potential Use in Ultralow-Voltage Circuits. *IEEE Electron Device Letters*, **2011**, 32, 3-5	4.4	11
116	50 MeV Li3+ ion irradiation effects on advanced 200 GHz SiGe HBTs. *Radiation Effects and Defects in Solids*, **2011**, 166, 710-717	0.9	13
115	The effect of 63 MeV hydrogen ion irradiation on 65 GHz UHV/CVD SiGe HBT BiCMOS technology. *Radiation Effects and Defects in Solids*, **2011**, 166, 703-709	0.9	6

114	Wide-tuning range, amplitude-locked test signal source for self-healing, mixed-signal electronic systems **2011**,		5
113	Impact of Source/Drain contact and gate finger spacing on the RF reliability of 45-nm RF nMOSFETs **2011**,		4
112	A SiGe BiCMOS Instrumentation Channel for Extreme Environment Applications. *VLSI Design*, **2010**, 2010, 1-12		4
111	Design of Digital Circuits Using Inverse-Mode Cascode SiGe HBTs for Single Event Upset Mitigation. *IEEE Transactions on Nuclear Science*, **2010**,	1.7	19
110	An investigation of collector-base transport in SiGe HBTs designed for half-Terahertz speeds **2010**,		3
109	Impact of body tie and Source/Drain contact spacing on the hot carrier reliability of 45-nm RF-CMOS **2010**,		6
108	Influence of Interface Traps on the Temperature Sensitivity of MOSFET Drain-Current Variations. *IEEE Electron Device Letters*, **2010**, 31, 387-389	4.4	8
107	Charge Collection and SEU in SiGe HBT Current Mode Logic Operating at Cryogenic Temperatures. *IEEE Transactions on Nuclear Science*, **2010**,	1.7	2
106	Single Event Transient Hardness of a New Complementary (npn $+$ pnp) SiGe HBT Technology on Thick-Film SOI. *IEEE Transactions on Nuclear Science*, **2010**,	1.7	2
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