

# JÃ©rÃ©me Boch

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Criterion for SEU occurrence in SRAM deduced from circuit and device Simulations in case of neutron-induced SER. IEEE Transactions on Nuclear Science, 2005, 52, 1148-1155.	2.0	63
2	Physical Model for the Low-Dose-Rate Effect in Bipolar Devices. IEEE Transactions on Nuclear Science, 2006, 53, 3655-3660.	2.0	63
3	Dose rate effects in bipolar oxides: Competition between trap filling and recombination. Applied Physics Letters, 2006, 88, 232113.	3.3	51
4	Estimation of low-dose-rate degradation on bipolar linear integrated circuits using switching experiments. IEEE Transactions on Nuclear Science, 2005, 52, 2616-2621.	2.0	41
5	Effect of switching from high to low dose rate on linear bipolar technology radiation response. IEEE Transactions on Nuclear Science, 2004, 51, 2896-2902.	2.0	38
6	Prediction of Multiple Cell Upset Induced by Heavy Ions in a 90 nm Bulk SRAM. IEEE Transactions on Nuclear Science, 2009, 56, 2050-2055.	2.0	38
7	Impact of Total Ionizing Dose on the Analog Single Event Transient Sensitivity of a Linear Bipolar Integrated Circuit. IEEE Transactions on Nuclear Science, 2007, 54, 2534-2540.	2.0	34
8	Innovative Simulations of Heavy Ion Cross Sections in 130 nm CMOS SRAM. IEEE Transactions on Nuclear Science, 2007, 54, 2413-2418.	2.0	31
9	The Use of a Dose-Rate Switching Technique to Characterize Bipolar Devices. IEEE Transactions on Nuclear Science, 2009, 56, 3347-3353.	2.0	31
10	Total-dose and single-event effects in DC/DC converter control circuitry. IEEE Transactions on Nuclear Science, 2003, 50, 1867-1872.	2.0	29
11	Analysis of Quasi-Monoenergetic Neutron and Proton SEU Cross Sections for Terrestrial Applications. IEEE Transactions on Nuclear Science, 2006, 53, 1890-1896.	2.0	29
12	Neutron-induced SEU in SRAMs: Simulations with n-Si and n-O interactions. IEEE Transactions on Nuclear Science, 2005, 52, 2332-2339.	2.0	26
13	Temperature Effect on Heavy-Ion Induced Parasitic Current on SRAM by Device Simulation: Effect on SEU Sensitivity. IEEE Transactions on Nuclear Science, 2007, 54, 1025-1029.	2.0	26
14	Review and Analysis of the Radiation-Induced Degradation Observed for the Input Bias Current of Linear Integrated Circuits. IEEE Transactions on Nuclear Science, 2008, 55, 3174-3181.	2.0	26
15	Modeling and Investigations on TID-ASETs Synergistic Effect in LM124 Operational Amplifier From Three Different Manufacturers. IEEE Transactions on Nuclear Science, 2013, 60, 4430-4438.	2.0	26
16	Accelerated Irradiation Method to Study Synergy Effects in Bipolar Integrated Circuits. IEEE Transactions on Nuclear Science, 2009, 56, 1971-1977.	2.0	22
17	Development of a New Methodology to Model the Synergistic Effects Between TID and ASETs. IEEE Transactions on Nuclear Science, 2010, 57, 1861-1868.	2.0	20
18	Impact of Switched Dose-Rate Irradiation on the Response of the LM124 Operational Amplifier to Pulsed X-Rays. IEEE Transactions on Nuclear Science, 2011, 58, 960-968.	2.0	20

#	ARTICLE	IF	CITATIONS
19	Bias Effects on Total Dose-Induced Degradation of Bipolar Linear Microcircuits for Switched Dose-Rate Irradiation. IEEE Transactions on Nuclear Science, 2010, 57, 1950-1957.	2.0	19
20	Elevated temperature irradiation at high dose rate of commercial linear bipolar ICs. IEEE Transactions on Nuclear Science, 2004, 51, 2903-2907.	2.0	18
21	Total dose effects on bipolar integrated circuits: characterization of the saturation region. IEEE Transactions on Nuclear Science, 2004, 51, 3225-3230.	2.0	18
22	Thermal Runaway in SiC Schottky Barrier Diodes Caused by Heavy Ions. IEEE Transactions on Nuclear Science, 2019, 66, 1688-1693.	2.0	18
23	Online dosimetry based on optically stimulated luminescence materials. IEEE Transactions on Nuclear Science, 2005, 52, 2578-2582.	2.0	17
24	Study of Synergism Effect Between TID and ATREE on the Response of the LM124 Operational Amplifier. IEEE Transactions on Nuclear Science, 2011, 58, 2890-2897.	2.0	17
25	Analysis of Bias Effects on the Total-Dose Response of a Bipolar Voltage Comparator. IEEE Transactions on Nuclear Science, 2006, 53, 3232-3236.	2.0	16
26	Simulation Tool for the Prediction of Heavy Ion Cross Section of Innovative 130-nm SRAMs. IEEE Transactions on Nuclear Science, 2008, 55, 2036-2041.	2.0	16
27	Impact of Electrical Stress and Neutron Irradiation on Reliability of Silicon Carbide Power MOSFET. IEEE Transactions on Nuclear Science, 2020, 67, 1365-1373.	2.0	16
28	Simultaneous Evaluation of TID and Displacement Damage Dose Using a Single OSL Sensor. IEEE Transactions on Nuclear Science, 2006, 53, 3713-3717.	2.0	15
29	ECORCE: A TCAD Tool for Total Ionizing Dose and Single Event Effect Modeling. IEEE Transactions on Nuclear Science, 2015, 62, 1516-1527.	2.0	15
30	Total Ionizing Dose Effect in LDMOS Oxides and Devices. IEEE Transactions on Nuclear Science, 2019, 66, 1606-1611.	2.0	15
31	Temperature Effect on Heavy-Ion-Induced Single-Event Transient Propagation in CMOS Bulk 0.18 $\mu\text{m}$ Inverter Chain. IEEE Transactions on Nuclear Science, 2008, 55, 2001-2006.	2.0	14
32	Analysis of Total-Dose Response of a Bipolar Voltage Comparator Combining Radiation Experiments and Design Data. IEEE Transactions on Nuclear Science, 2006, 53, 1910-1916.	2.0	13
33	Neutron-Induced Multiple Bit Upsets on Two Commercial SRAMs Under Dynamic-Stress. IEEE Transactions on Nuclear Science, 2012, 59, 893-899.	2.0	13
34	Transient device simulation of neutron-induced failure in IGBT: A first step for developing a compact predictive model. Microelectronics Reliability, 2013, 53, 1293-1299.	1.7	13
35	Study and Modeling of the Impact of TID on the ATREE Response in LM124 Operational Amplifier. IEEE Transactions on Nuclear Science, 2014, 61, 1603-1610.	2.0	13
36	Evaluation of ELDRS Mechanisms Using Dose Rate Switching Experiments on Gated Lateral PNP Transistors. IEEE Transactions on Nuclear Science, 2011, 58, 2953-2960.	2.0	12

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37	Modeling dose effects in electronics devices: Dose and temperature dependence of power MOSFET. Microelectronics Reliability, 2013, 53, 1306-1310.	1.7	12
38	The Role of Feedback Resistors and TID Effects in the ASET Response of a High Speed Current Feedback Amplifier. IEEE Transactions on Nuclear Science, 2014, 61, 3201-3209.	2.0	12
39	Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. IEEE Transactions on Nuclear Science, 2021, 68, 1623-1632.	2.0	11
40	Dose and dose-rate effects on NPN bipolar junction transistors irradiated at high temperature. IEEE Transactions on Nuclear Science, 2002, 49, 1474-1479.	2.0	10
41	Effect of thermal annealing on radiation-induced degradation of bipolar technologies when the dose rate is switched from high to low. IEEE Transactions on Nuclear Science, 2004, 51, 3219-3224.	2.0	8
42	Measurement of the Energy Depositions in a Silicon Volume by 14 MeV Neutrons. IEEE Transactions on Nuclear Science, 2006, 53, 3707-3712.	2.0	8
43	Neutrons-Induced IGBT Failure: Effects of the Number of Tested Devices on the Cross Section Calculation. IEEE Transactions on Nuclear Science, 2013, 60, 2392-2396.	2.0	8
44	Study of a Thermal Annealing Approach for Very High Total Dose Environments. IEEE Transactions on Nuclear Science, 2014, 61, 2923-2929.	2.0	8
45	Correlation of Dynamic Parameter Modification and ASET Sensitivity in a Shunt Voltage Reference. IEEE Transactions on Nuclear Science, 2012, 59, 2756-2763.	2.0	7
46	Investigation of Flip-Flop Effects in a Linear Analog Comparator-With-Hysteresis Circuit. IEEE Transactions on Nuclear Science, 2013, 60, 2542-2549.	2.0	7
47	Impact of Neutron-Induced Displacement Damage&#x2013; on the ATREE Response in LM124 &#x2013;Operational Amplifier. IEEE Transactions on Nuclear Science, 2014, 61, 3043-3049.	2.0	7
48	Dose Rate Switching Technique on&#x2013;ELDRS-Free Bipolar Devices. IEEE Transactions on Nuclear Science, 2016, 63, 2065-2071.	2.0	7
49	Analysis of SET Propagation in a System in Package Point of Load Converter. IEEE Transactions on Nuclear Science, 2020, 67, 1494-1502.	2.0	7
50	Impact of mechanical stress on total-dose effects in bipolar ICs. IEEE Transactions on Nuclear Science, 2003, 50, 2335-2340.	2.0	6
51	Comparison of the Total Ionizing Dose Sensitivity of a System in Package Point of Load Converter Using Both Component- and System-Level Test Approaches. Electronics (Switzerland), 2021, 10, 1235.	3.1	5
52	Testing and Validation Methodology for a Radiation Monitoring System for Electronics in Particle Accelerators. IEEE Transactions on Nuclear Science, 2022, 69, 1642-1650.	2.0	5
53	Model for high-temperature radiation effects in n-p-n bipolar-junction transistors. IEEE Transactions on Nuclear Science, 2002, 49, 2990-2997.	2.0	4
54	The Use of Electron-Beam Lithography for Localized Micro-Beam Irradiations. IEEE Transactions on Nuclear Science, 2011, 58, 1104-1111.	2.0	4

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55	ELDRS: Optimization Tools for the Switched Dose Rate Technique. IEEE Transactions on Nuclear Science, 2011, 58, 2998-3003.	2.0	3
56	Effect of boron neutralization on interface state creation after direct tunneling injections at 100â€šÄ°C in 2,3-nm ultrathin gate oxides. Applied Physics Letters, 2003, 83, 926-927.	3.3	1
57	On the evaluation of FPGA radiation benchmarks. Microelectronics Reliability, 2021, 126, 114276.	1.7	1
58	The impact of mechanical stress on the total-dose response of linear bipolar transistors with various passivation layers. IEEE Transactions on Nuclear Science, 2005, 52, 1513-1517.	2.0	0
59	Conductive atomic force microscopy as a tool to reveal high ionising dose effects on ultra thin SiO2/Si structures. Applied Nanoscience (Switzerland), 2013, 3, 235-240.	3.1	0