

Andrea Cester

List of Publications by Year in descending order

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128
papers

1,343
citations

430874

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128
all docs

128
docs citations

128
times ranked

1342
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiation induced leakage current and stress induced leakage current in ultra-thin gate oxides. IEEE Transactions on Nuclear Science, 1998, 45, 2375-2382.	2.0	157
2	Trapping phenomena in AlGaIn/GaN HEMTs: a study based on pulsed and transient measurements. Semiconductor Science and Technology, 2013, 28, 074021.	2.0	71
3	Flexible and Organic Neural Interfaces: A Review. Applied Sciences (Switzerland), 2017, 7, 1292.	2.5	42
4	Drain current decrease in MOSFETs after heavy ion irradiation. IEEE Transactions on Nuclear Science, 2004, 51, 3150-3157.	2.0	36
5	Thermal stress effects on Dye-Sensitized Solar Cells (DSSCs). Microelectronics Reliability, 2011, 51, 1762-1766.	1.7	36
6	Influence of Shunt Resistance on the Performance of an Illuminated String of Solar Cells: Theory, Simulation, and Experimental Analysis. IEEE Transactions on Device and Materials Reliability, 2014, 14, 942-950.	2.0	33
7	Noise characteristics of radiation-induced soft breakdown current in ultrathin gate oxides. IEEE Transactions on Nuclear Science, 2001, 48, 2093-2100.	2.0	30
8	Thermal and electrical stress effects of electrical and optical characteristics of Alq3/NPD OLED. Microelectronics Reliability, 2010, 50, 1866-1870.	1.7	26
9	Collapse of MOSFET Drain Current After Soft Breakdown. IEEE Transactions on Device and Materials Reliability, 2004, 4, 63-72.	2.0	24
10	Impact of 24-GeV Proton Irradiation on 0.13- μm CMOS Devices. IEEE Transactions on Nuclear Science, 2006, 53, 1917-1922.	2.0	24
11	Understanding lead iodide perovskite hysteresis and degradation causes by extensive electrical characterization. Solar Energy Materials and Solar Cells, 2019, 189, 43-52.	6.2	24
12	Ionizing Radiation Effect on Ferroelectric Nonvolatile Memories and Its Dependence on the Irradiation Temperature. IEEE Transactions on Nuclear Science, 2008, 55, 3237-3245.	2.0	23
13	Worldwide outdoor round robin study of organic photovoltaic devices and modules. Solar Energy Materials and Solar Cells, 2014, 130, 281-290.	6.2	23
14	Total dose dependence of radiation-induced leakage current in ultra-thin gate oxides. Microelectronics Reliability, 1999, 39, 221-226.	1.7	22
15	Collapse of MOSFET drain current after soft breakdown and its dependence on the transistor aspect ratio W/L , 0, , .		22
16	Effects of Positive and Negative Stresses on 11Å^{V} MOSFETs With $\text{Al}_{2}\text{O}_{3}$ Gate Dielectric. IEEE Electron Device Letters, 2011, 32, 488-490.	3.9	22
17	A physical-based equivalent circuit model for an organic/electrolyte interface. Organic Electronics, 2016, 35, 176-185.	2.6	22
18	Impact of Heavy-Ion Strikes on Minimum-Size MOSFETs With Ultra-Thin Gate Oxide. IEEE Transactions on Nuclear Science, 2006, 53, 3675-3680.	2.0	20

#	ARTICLE	IF	CITATIONS
19	Characterization and modeling of organic (P3HT:PCBM) solar cells as a function of bias and illumination. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 337-345.	6.2	19
20	Using AFM Related Techniques for the Nanoscale Electrical Characterization of Irradiated Ultrathin Gate Oxides. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 1891-1897.	2.0	18
21	High-voltage double-pulsed measurement system for GaN-based power HEMTs. , 2014, , .		18
22	Post-radiation-induced soft breakdown conduction properties as a function of temperature. <i>Applied Physics Letters</i> , 2001, 79, 1336-1338.	3.3	17
23	Soft breakdown current noise in ultra-thin gate oxides. <i>Solid-State Electronics</i> , 2002, 46, 1019-1025.	1.4	17
24	Statistical model for radiation-induced wear-out of ultra-thin gate oxides after exposure to heavy ion irradiation. <i>IEEE Transactions on Nuclear Science</i> , 2003, 50, 2167-2175.	2.0	16
25	Systematic characterization of soft- and hard-breakdown spots using techniques with nanometer resolution. <i>Microelectronic Engineering</i> , 2007, 84, 1956-1959.	2.4	16
26	Reliability Study of Ruthenium-Based Dye-Sensitized Solar Cells (DSCs). <i>IEEE Journal of Photovoltaics</i> , 2012, 2, 27-34.	2.5	16
27	Threshold voltage instabilities in D-mode GaN HEMTs for power switching applications. , 2014, , .		16
28	Model of Organic Solar Cell Photocurrent Including the Effect of Charge Accumulation at Interfaces and Non-Uniform Carrier Generation. <i>IEEE Journal of the Electron Devices Society</i> , 2016, 4, 387-395.	2.1	15
29	Electrical stresses on ultra-thin gate oxide SOI MOSFETs after irradiation. <i>IEEE Transactions on Nuclear Science</i> , 2005, 52, 2252-2258.	2.0	14
30	Electrostatic Discharge Effects in Ultrathin Gate Oxide MOSFETs. <i>IEEE Transactions on Device and Materials Reliability</i> , 2006, 6, 87-94.	2.0	14
31	Time decay of stress induced leakage current in thin gate oxides by low-field electron injection. <i>Solid-State Electronics</i> , 2001, 45, 1345-1353.	1.4	13
32	Degradation dynamics of ultrathin gate oxides subjected to electrical stress. <i>IEEE Electron Device Letters</i> , 2003, 24, 604-606.	3.9	13
33	Effects of Heavy-Ion Strikes on Fully Depleted SOI MOSFETs With Ultra-Thin Gate Oxide and Different Strain-Inducing Techniques. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 2257-2263.	2.0	13
34	Near-UV Irradiation Effects on Pentacene-Based Organic Thin Film Transistors. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 2911-2917.	2.0	13
35	Light, bias, and temperature effects on organic TFTs. , 2010, , .		12
36	Reliability study of dye-sensitized solar cells by means of solar simulator and white LED. <i>Microelectronics Reliability</i> , 2012, 52, 2495-2499.	1.7	12

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37	A Combined Mechanical and Electrical Characterization Procedure for Investigating the Dynamic Behavior of RF-MEMS Switches. IEEE Transactions on Device and Materials Reliability, 2014, 14, 13-20.	2.0	12
38	TIPS-Pentacene as Biocompatible Material for Solution Processed High-Performance Electronics Operating in Water. IEEE Electron Device Letters, 2018, 39, 1401-1404.	3.9	12
39	Radiation-Induced Modifications of the Electrical Characteristics of Nanocrystal Memory Cells and Arrays. IEEE Transactions on Nuclear Science, 2006, 53, 3693-3700.	2.0	11
40	Impact of Trapped Charge and Interface Defects on the Degradation of the Optical and Electrical Characteristics in NPD/Alq_3 OLEDs. IEEE Transactions on Electron Devices, 2010, 57, 178-187.	3.0	11
41	Role of buffer doping and pre-existing trap states in the current collapse and degradation of AlGaIn/GaN HEMTs. , 2014, , .		11
42	Degradation of static and dynamic behavior of CMOS inverters during constant and pulsed voltage stress. Microelectronics Reliability, 2006, 46, 1669-1672.	1.7	10
43	Transient evolution of mechanical and electrical effects in microelectromechanical switches subjected to long-term stresses. IEEE Transactions on Electron Devices, 2015, 62, 3825-3831.	3.0	10
44	Wear-out and breakdown of ultra-thin gate oxides after irradiation. Electronics Letters, 2002, 38, 1137.	1.0	9
45	MOSFET drain current reduction under Fowler-Nordheim and channel hot carrier injection before gate oxide breakdown. Materials Science in Semiconductor Processing, 2004, 7, 175-180.	4.0	9
46	Investigation of Proton and X-Ray Irradiation Effects on Nanocrystal and Floating Gate Memory Cell Arrays. IEEE Transactions on Nuclear Science, 2008, 55, 3000-3008.	2.0	9
47	Improved Tolerance Against UV and Alpha Irradiation of Encapsulated Organic TFTs. IEEE Transactions on Nuclear Science, 2012, 59, 2979-2986.	2.0	9
48	Thermal and electrical investigation of the reverse bias degradation of silicon solar cells. Microelectronics Reliability, 2013, 53, 1809-1813.	1.7	9
49	Effects of constant voltage and constant current stress in PCBM:P3HT solar cells. Microelectronics Reliability, 2015, 55, 1795-1799.	1.7	9
50	Viscoelasticity Recovery Mechanism in Radio Frequency Microelectromechanical Switches. IEEE Transactions on Electron Devices, 2016, 63, 3620-3626.	3.0	9
51	Preconditioning Procedure for the Better Estimation of the Long-Term Lifetime in Microelectromechanical Switches. IEEE Transactions on Electron Devices, 2016, 63, 1274-1280.	3.0	9
52	On the Nature of Charge-Injecting Contacts in Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2020, 12, 30616-30626.	8.0	9
53	Stress induced leakage current under pulsed voltage stress. Solid-State Electronics, 2002, 46, 399-405.	1.4	8
54	Radiation-induced breakdown in 1.7 nm oxynitrided gate oxides. IEEE Transactions on Nuclear Science, 2005, 52, 2210-2216.	2.0	8

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55	Radiation Tolerance of Nanocrystal-Based Flash Memory Arrays Against Heavy Ion Irradiation. IEEE Transactions on Nuclear Science, 2007, 54, 2196-2203.	2.0	8
56	Oxide–Nitride–Oxide Capacitor Reliability Under Heavy-Ion Irradiation. IEEE Transactions on Nuclear Science, 2007, 54, 1898-1905.	2.0	8
57	Degradation of III–V inversion-type enhancement-mode MOSFETs. , 2010, , .		8
58	Enhanced permanent degradation of organic TFT under electrical stress and visible light exposure. Microelectronics Reliability, 2012, 52, 2490-2494.	1.7	8
59	Effects of constant voltage stress on p- and n-type organic thin film transistors with poly(methyl) Tj ETQq1 1 0.784314 rgBT (Overlock 1	1.7	8
60	Simultaneous stimulation and recording of cell activity with reference-less sensors: Is it feasible?. Organic Electronics, 2018, 62, 676-684.	2.6	8
61	Simple and accurate single transistor technique for parameters extraction from organic and inorganic thin film devices. Organic Electronics, 2018, 63, 376-383.	2.6	8
62	Impact of Heavy-Ion Strikes on Nanocrystal Non Volatile Memory Cell Arrays. IEEE Transactions on Nuclear Science, 2006, 53, 3195-3202.	2.0	7
63	Electrostatic Discharge Effects in Irradiated Fully Depleted SOI MOSFETs With Ultra-Thin Gate Oxide. IEEE Transactions on Nuclear Science, 2007, 54, 2204-2209.	2.0	7
64	Improved reliability of organic light-emitting diodes with indium-zinc-oxide anode contact. , 2009, , .		7
65	Low-energy UV effects on Organic Thin-Film-Transistors. , 2011, , .		7
66	Characterization and Modeling of Reduced-Graphene Oxide Ambipolar Thin-Film Transistors. IEEE Transactions on Electron Devices, 2022, 69, 3192-3198.	3.0	7
67	Lifetime estimation of analog circuits from the electrical characteristics of stressed MOSFETs. Microelectronics Reliability, 2007, 47, 1349-1352.	1.7	6
68	Organic TFT with SiO<inf>2</inf>-parylene gate dielectric stack and optimized pentacene growth temperature. , 2009, , .		6
69	Organic Thin Film Transistor degradation under sunlight exposure. , 2012, , .		5
70	Effects of positive and negative constant voltage stress on organic TFTs. , 2013, , .		5
71	Effects of thermal and electrical stress on DH4T-based organic thin-film-transistors with PMMA gate dielectrics. Microelectronics Reliability, 2015, 55, 1790-1794.	1.7	5
72	Investigation of Mobility Transient on Organic Transistor by Means of DLTS Technique. IEEE Transactions on Electron Devices, 2016, 63, 4432-4439.	3.0	5

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73	Reverse bias degradation of metal wrap through silicon solar cells. Solar Energy Materials and Solar Cells, 2016, 147, 288-294.	6.2	5
74	Real-time threshold voltage compensation on dual-gate electrolyte-gated organic field-effect transistors. Organic Electronics, 2022, 106, 106531.	2.6	5
75	Stochastic modeling of progressive breakdown in ultrathin SiO ₂ films. Applied Physics Letters, 2003, 83, 5014-5016.	3.3	4
76	Electrical characterization at a nanometer scale of weak spots in irradiated SiO ₂ /Si gate oxides. IEEE Transactions on Nuclear Science, 2005, 52, 1457-1461.	2.0	4
77	Total Ionizing Dose effects on 4Mbit Phase Change Memory arrays. , 2007, , .		4
78	Effects of channel hot carrier stress on III-V bulk planar MOSFETs. , 2012, , .		4
79	Visible Light and Low-Energy UV Effects on Organic Thin-Film Transistors. IEEE Transactions on Electron Devices, 2012, 59, 1501-1509.	3.0	4
80	Comparison between positive and negative constant current stress on dye-sensitized solar cells. Microelectronics Reliability, 2013, 53, 1804-1808.	1.7	4
81	Reliability study of organic complementary logic inverters using constant voltage stress. Solid-State Electronics, 2015, 113, 151-156.	1.4	4
82	Application of Photocurrent Model on Polymer Solar Cells Under Forward Bias Stress. IEEE Journal of Photovoltaics, 2016, 6, 1542-1548.	2.5	4
83	Ionising radiation effects on MOSFET drain current. Microelectronics Reliability, 2003, 43, 1247-1251.	1.7	3
84	Incidence of oxide and interface degradation on MOSFET performance. Microelectronic Engineering, 2004, 72, 66-70.	2.4	3
85	Impact of Fowler-Nordheim and channel hot carrier stresses on MOSFETs with 2.2nm gate oxide. Microelectronic Engineering, 2005, 80, 178-181.	2.4	3
86	Irradiation induced weak spots in SiO ₂ gate oxides of MOS devices observed with C-AFM. Electronics Letters, 2005, 41, 101.	1.0	3
87	Study of the effects of UV-exposure on dye-sensitized solar cells. , 2013, , .		3
88	Thermal and electrical characterization of catastrophic degradation of silicon solar cells submitted to reverse current stress. , 2013, , .		3
89	On the Pulsed and Transient Characterization of Organic Field-Effect Transistors. IEEE Electron Device Letters, 2015, 36, 1359-1362.	3.9	3
90	Effects of thermal stress on hybrid perovskite solar cells with different encapsulation techniques. , 2017, , .		3

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91	Open circuit voltage decay as a tool to assess the reliability of organic solar cells: P3HT:PCBM vs. HBG1:PCBM. , 2017, , .		3
92	Application of an Open-Circuit Voltage Decay Model to Compare the Performances of Donor Polymers in Bulk Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 517-524.	2.5	3
93	A Novel Algorithm for Lifetime Extrapolation, Prediction, and Estimation of Emerging PV Technologies. Small Methods, 2018, 2, 1700285.	8.6	3
94	A General Equivalent Circuit Model for a Metal/Organic/Liquid/Metal System. IEEE Transactions on Electron Devices, 2018, 65, 4555-4562.	3.0	3
95	Heavy Ion Damage in Ultra-Thin Gate Oxide SQI MOSFETs. , 2005, , .		2
96	Impact of 24-GeV proton irradiation on 0.13-Åm CMOS devices. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	2
97	Simulation of the time-dependent breakdown characteristics of heavy-ion irradiated gate oxides using a mean-reverting Poisson-Gaussian process. IEEE Transactions on Nuclear Science, 2005, 52, 1462-1467.	2.0	2
98	Leaky spots in irradiated SiO/sub 2/ gate oxides observed with C-AFM. , 0, , .		2
99	Modeling mosfet and circuit degradation through spice. , 0, , .		2
100	Role of Oxide/Nitride Interface Traps on the Nanocrystal Memory Characteristics. , 2007, , .		2
101	Impact of Radiation on the Operation and Reliability of Deep Submicron CMOS Technologies. ECS Transactions, 2010, 27, 39-46.	0.5	2
102	Characterization of high-voltage charge-trapping effects in GaN-based power HEMTs. , 2014, , .		2
103	Reliability of capacitive RF MEMS switches subjected to repetitive impact cycles at different temperatures. , 2014, , .		2
104	Effects of constant voltage stress on organic complementary logic inverters. , 2014, , .		2
105	Stress-induced degradation of p- and n-type organic thin-film-transistors in the ON and OFF states. Microelectronics Reliability, 2014, 54, 1638-1642.	1.7	2
106	Degradation mechanisms of dye-sensitized solar cells: Light, bias and temperature effects. , 2015, , .		2
107	Logistic model for leakage current in electrical stressed ultra-thin gate oxides. Electronics Letters, 2003, 39, 749.	1.0	2
108	Low-field current on thin oxides after constant current or radiation stresses. Journal of Non-Crystalline Solids, 1999, 245, 232-237.	3.1	1

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109	Pulsed voltage stress on thin oxides. Electronics Letters, 2000, 36, 1319.	1.0	1
110	Detrended fluctuation analysis of the soft breakdown current. Microelectronic Engineering, 2001, 59, 49-53.	2.4	1
111	Degradation of low frequency noise and DC characteristics on MOSFETs and its correlation with SILC. , 0, , .		1
112	Logistic modeling of progressive breakdown in ultrathin gate oxides. , 0, , .		1
113	IONIZING RADIATION EFFECTS ON ULTRA-THIN OXIDE MOS STRUCTURES. International Journal of High Speed Electronics and Systems, 2004, 14, 563-574.	0.7	1
114	Ionising radiation and electrical stress on nanocrystal memory cell array. Microelectronics Reliability, 2007, 47, 602-605.	1.7	1
115	Modeling of Heavy Ion Induced Charge Loss Mechanisms in Nanocrystal Memory Cells. IEEE Transactions on Nuclear Science, 2008, 55, 2895-2903.	2.0	1
116	Implanted and irradiated SiO ₂ /Si structure electrical properties at the nanoscale. Journal of Vacuum Science & Technology B, 2009, 27, 421.	1.3	1
117	Study of the effect of stress-induced trap levels on OLED characteristics by numerical model. , 2012, , .		1
118	Analysis of electrical and thermal stress effects on PCBM:P3HT solar cells by photocurrent and impedance spectroscopy modeling. , 2017, , .		1
119	Drift-Diffusion and Analytical Modeling of the Recombination Mechanisms in Organic Solar Cells: Effect of the Nonconstant Charge Distribution Inside the Active Layer. IEEE Journal of Photovoltaics, 2018, 8, 1677-1684.	2.5	1
120	A Morphological Peak-Detector for Single-Unit Neural Recording Acquisition Systems. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	1
121	Editorial Conference Comments by the General Chairwoman. IEEE Transactions on Nuclear Science, 2006, 53, 3066-3068.	2.0	0
122	Radiation Induced Charge Loss Mechanisms Across the Dielectrics of Floating Gate Flash Memories. ECS Transactions, 2007, 6, 807-843.	0.5	0
123	Readout drain current dependence of programming window in nanocrystal memory cells. Electronics Letters, 2008, 44, 445.	1.0	0
124	Threshold voltage instability in organic TFT with SiO ₂ and SiO ₂ /parylene-stack dielectrics. Reliability Physics Symposium, 2009 IEEE International, 2009, , .	0.0	0
125	Effects of soft-UV irradiation on organic thin film transistors with different gate dielectrics. , 2010, , .		0
126	Optical stress and reliability study of ruthenium-based dye-sensitized solar cells (DSSC). , 2011, , .		0

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127	Stress-induced instabilities of shunt paths in high efficiency MWT solar cells. , 2015, , .		0
128	Organic substrates for novel printed sensors in neural interfacing: a measurement method for cytocompatibility analysis. , 2020, , .		0