

# Andrea Cester

## List of Publications by Year in descending order

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128  
papers

1,343  
citations

430874

18  
h-index

477307

29  
g-index

128  
all docs

128  
docs citations

128  
times ranked

1342  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Morphological Peak-Detector for Single-Unit Neural Recording Acquisition Systems. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	1
2	Characterization and Modeling of Reduced-Graphene Oxide Ambipolar Thin-Film Transistors. IEEE Transactions on Electron Devices, 2022, 69, 3192-3198.	3.0	7
3	Real-time threshold voltage compensation on dual-gate electrolyte-gated organic field-effect transistors. Organic Electronics, 2022, 106, 106531.	2.6	5
4	Organic substrates for novel printed sensors in neural interfacing: a measurement method for cytocompatibility analysis. , 2020, , .		0
5	On the Nature of Charge-Injecting Contacts in Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2020, 12, 30616-30626.	8.0	9
6	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
7	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
8	A Novel Algorithm for Lifetime Extrapolation, Prediction, and Estimation of Emerging PV Technologies. Small Methods, 2018, 2, 1700285.	8.6	3
9	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
10	A General Equivalent Circuit Model for a Metal/Organic/Liquid/Metal System. IEEE Transactions on Electron Devices, 2018, 65, 4555-4562.	3.0	3
11	Simultaneous stimulation and recording of cell activity with reference-less sensors: Is it feasible?. Organic Electronics, 2018, 62, 676-684.	2.6	8
12	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
13	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
14	Effects of thermal stress on hybrid perovskite solar cells with different encapsulation techniques. , 2017, , .		3
15	Open circuit voltage decay as a tool to assess the reliability of organic solar cells: P3HT:PCBM vs. HBG1:PCBM. , 2017, , .		3
16	Analysis of electrical and thermal stress effects on PCBM:P3HT solar cells by photocurrent and impedance spectroscopy modeling. , 2017, , .		1
17	Flexible and Organic Neural Interfaces: A Review. Applied Sciences (Switzerland), 2017, 7, 1292.	2.5	42
18	A physical-based equivalent circuit model for an organic/electrolyte interface. Organic Electronics, 2016, 35, 176-185.	2.6	22

#	ARTICLE	IF	CITATIONS
19	Application of Photocurrent Model on Polymer Solar Cells Under Forward Bias Stress. IEEE Journal of Photovoltaics, 2016, 6, 1542-1548.	2.5	4
20	Viscoelasticity Recovery Mechanism in Radio Frequency Microelectromechanical Switches. IEEE Transactions on Electron Devices, 2016, 63, 3620-3626.	3.0	9
21	Model of Organic Solar Cell Photocurrent Including the Effect of Charge Accumulation at Interfaces and Non-Uniform Carrier Generation. IEEE Journal of the Electron Devices Society, 2016, 4, 387-395.	2.1	15
22	Investigation of Mobility Transient on Organic Transistor by Means of DLTS Technique. IEEE Transactions on Electron Devices, 2016, 63, 4432-4439.	3.0	5
23	Characterization and modeling of organic (P3HT:PCBM) solar cells as a function of bias and illumination. Solar Energy Materials and Solar Cells, 2016, 157, 337-345.	6.2	19
24	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
25	Reverse bias degradation of metal wrap through silicon solar cells. Solar Energy Materials and Solar Cells, 2016, 147, 288-294.	6.2	5
26	Degradation mechanisms of dye-sensitized solar cells: Light, bias and temperature effects. , 2015, , .		2
27	Effects of constant voltage and constant current stress in PCBM:P3HT solar cells. Microelectronics Reliability, 2015, 55, 1795-1799.	1.7	9
28	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
29	Reliability study of organic complementary logic inverters using constant voltage stress. Solid-State Electronics, 2015, 113, 151-156.	1.4	4
30	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
31	Stress-induced instabilities of shunt paths in high efficiency MWT solar cells. , 2015, , .		0
32	On the Pulsed and Transient Characterization of Organic Field-Effect Transistors. IEEE Electron Device Letters, 2015, 36, 1359-1362.	3.9	3
33	Characterization of high-voltage charge-trapping effects in GaN-based power HEMTs. , 2014, , .		2
34	Reliability of capacitive RF MEMS switches subjected to repetitive impact cycles at different temperatures. , 2014, , .		2
35	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
36	Effects of constant voltage stress on organic complementary logic inverters. , 2014, , .		2

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37	Role of buffer doping and pre-existing trap states in the current collapse and degradation of AlGaIn/GaN HEMTs. , 2014, , .		11
38	High-voltage double-pulsed measurement system for GaN-based power HEMTs. , 2014, , .		18
39	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
40	Threshold voltage instabilities in D-mode GaN HEMTs for power switching applications. , 2014, , .		16
41	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
42	Worldwide outdoor round robin study of organic photovoltaic devices and modules. Solar Energy Materials and Solar Cells, 2014, 130, 281-290.	6.2	23
43	Thermal and electrical investigation of the reverse bias degradation of silicon solar cells. Microelectronics Reliability, 2013, 53, 1809-1813.	1.7	9
44	Study of the effects of UV-exposure on dye-sensitized solar cells. , 2013, , .		3
45	Thermal and electrical characterization of catastrophic degradation of silicon solar cells submitted to reverse current stress. , 2013, , .		3
46	Effects of constant voltage stress on p- and n-type organic thin film transistors with poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	1.7	8
47	Comparison between positive and negative constant current stress on dye-sensitized solar cells. Microelectronics Reliability, 2013, 53, 1804-1808.	1.7	4
48	Trapping phenomena in AlGaIn/GaN HEMTs: a study based on pulsed and transient measurements. Semiconductor Science and Technology, 2013, 28, 074021.	2.0	71
49	Effects of positive and negative constant voltage stress on organic TFTs. , 2013, , .		5
50	Improved Tolerance Against UV and Alpha Irradiation of Encapsulated Organic TFTs. IEEE Transactions on Nuclear Science, 2012, 59, 2979-2986.	2.0	9
51	Study of the effect of stress-induced trap levels on OLED characteristics by numerical model. , 2012, , .		1
52	Organic Thin Film Transistor degradation under sunlight exposure. , 2012, , .		5
53	Enhanced permanent degradation of organic TFT under electrical stress and visible light exposure. Microelectronics Reliability, 2012, 52, 2490-2494.	1.7	8
54	Reliability study of dye-sensitized solar cells by means of solar simulator and white LED. Microelectronics Reliability, 2012, 52, 2495-2499.	1.7	12

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55	Effects of channel hot carrier stress on III-V bulk planar MOSFETs. , 2012, , .		4
56	Visible Light and Low-Energy UV Effects on Organic Thin-Film Transistors. IEEE Transactions on Electron Devices, 2012, 59, 1501-1509.	3.0	4
57	Reliability Study of Ruthenium-Based Dye-Sensitized Solar Cells (DSCs). IEEE Journal of Photovoltaics, 2012, 2, 27-34.	2.5	16
58	Effects of Positive and Negative Stresses on III-V MOSFETs With $\text{Al}_2\text{O}_3$ Gate Dielectric. IEEE Electron Device Letters, 2011, 32, 488-490.	3.9	22
59	Optical stress and reliability study of ruthenium-based dye-sensitized solar cells (DSSC). , 2011, , .		0
60	Thermal stress effects on Dye-Sensitized Solar Cells (DSSCs). Microelectronics Reliability, 2011, 51, 1762-1766.	1.7	36
61	Low-energy UV effects on Organic Thin-Film-Transistors. , 2011, , .		7
62	Near-UV Irradiation Effects on Pentacene-Based Organic Thin Film Transistors. IEEE Transactions on Nuclear Science, 2011, 58, 2911-2917.	2.0	13
63	Impact of Trapped Charge and Interface Defects on the Degradation of the Optical and Electrical Characteristics in $\text{NPD/Alq}_3$ OLEDs. IEEE Transactions on Electron Devices, 2010, 57, 178-187.	3.0	11
64	Thermal and electrical stress effects of electrical and optical characteristics of $\text{Alq}_3/\text{NPD}$ OLED. Microelectronics Reliability, 2010, 50, 1866-1870.	1.7	26
65	Effects of soft-UV irradiation on organic thin film transistors with different gate dielectrics. , 2010, , .		0
66	Impact of Radiation on the Operation and Reliability of Deep Submicron CMOS Technologies. ECS Transactions, 2010, 27, 39-46.	0.5	2
67	Light, bias, and temperature effects on organic TFTs. , 2010, , .		12
68	Degradation of III-V inversion-type enhancement-mode MOSFETs. , 2010, , .		8
69	Implanted and irradiated $\text{SiO}_2/\text{Si}$ structure electrical properties at the nanoscale. Journal of Vacuum Science & Technology B, 2009, 27, 421.	1.3	1
70	Organic TFT with $\text{SiO}_2$ -parylene gate dielectric stack and optimized pentacene growth temperature. , 2009, , .		6
71	Threshold voltage instability in organic TFT with $\text{SiO}_2$ and $\text{SiO}_2/\text{parylene}$ -stack dielectrics. Reliability Physics Symposium, 2009 IEEE International, 2009, , .	0.0	0
72	Improved reliability of organic light-emitting diodes with indium-zinc-oxide anode contact. , 2009, , .		7

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73	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
74	Modeling of Heavy Ion Induced Charge Loss Mechanisms in Nanocrystal Memory Cells. IEEE Transactions on Nuclear Science, 2008, 55, 2895-2903.	2.0	1
75	Readout drain current dependence of programming window in nanocrystal memory cells. Electronics Letters, 2008, 44, 445.	1.0	0
76	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
77	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
78	Total Ionizing Dose effects on 4Mbit Phase Change Memory arrays. , 2007, , .		4
79	Radiation Induced Charge Loss Mechanisms Across the Dielectrics of Floating Gate Flash Memories. ECS Transactions, 2007, 6, 807-843.	0.5	0
80	Radiation Tolerance of Nanocrystal-Based Flash Memory Arrays Against Heavy Ion Irradiation. IEEE Transactions on Nuclear Science, 2007, 54, 2196-2203.	2.0	8
81	Oxide&#x2013;Nitride&#x2013;Oxide Capacitor Reliability Under Heavy-Ion Irradiation. IEEE Transactions on Nuclear Science, 2007, 54, 1898-1905.	2.0	8
82	Role of Oxide/Nitride Interface Traps on the Nanocrystal Memory Characteristics. , 2007, , .		2
83	Using AFM Related Techniques for the Nanoscale Electrical Characterization of Irradiated Ultrathin Gate Oxides. IEEE Transactions on Nuclear Science, 2007, 54, 1891-1897.	2.0	18
84	Systematic characterization of soft- and hard-breakdown spots using techniques with nanometer resolution. Microelectronic Engineering, 2007, 84, 1956-1959.	2.4	16
85	Ionising radiation and electrical stress on nanocrystal memory cell array. Microelectronics Reliability, 2007, 47, 602-605.	1.7	1
86	Lifetime estimation of analog circuits from the electrical characteristics of stressed MOSFETs. Microelectronics Reliability, 2007, 47, 1349-1352.	1.7	6
87	Effects of Heavy-Ion Strikes on Fully Depleted SOI MOSFETs With Ultra-Thin Gate Oxide and Different Strain-Inducing Techniques. IEEE Transactions on Nuclear Science, 2007, 54, 2257-2263.	2.0	13
88	Electrostatic Discharge Effects in Ultrathin Gate Oxide MOSFETs. IEEE Transactions on Device and Materials Reliability, 2006, 6, 87-94.	2.0	14
89	Degradation of static and dynamic behavior of CMOS inverters during constant and pulsed voltage stress. Microelectronics Reliability, 2006, 46, 1669-1672.	1.7	10
90	Editorial Conference Comments by the General Chairwoman. IEEE Transactions on Nuclear Science, 2006, 53, 3066-3068.	2.0	0

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91	Impact of 24-GeV Proton Irradiation on 0.13- $\mu\text{m}$ CMOS Devices. IEEE Transactions on Nuclear Science, 2006, 53, 1917-1922.	2.0	24
92	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
93	Impact of Heavy-Ion Strikes on Nanocrystal Non Volatile Memory Cell Arrays. IEEE Transactions on Nuclear Science, 2006, 53, 3195-3202.	2.0	7
94	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
95	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
96	Irradiation induced weak spots in SiO <sub>2</sub> gate oxides of MOS devices observed with C-AFM. Electronics Letters, 2005, 41, 101.	1.0	3
97	Heavy Ion Damage in Ultra-Thin Gate Oxide SOI MOSFETs. , 2005, , .		2
98	Impact of 24-GeV proton irradiation on 0.13- $\mu\text{m}$ CMOS devices. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	2
99	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
100	Electrical characterization at a nanometer scale of weak spots in irradiated SiO <sub>2</sub> /gate oxides. IEEE Transactions on Nuclear Science, 2005, 52, 1457-1461.	2.0	4
101	Electrical stresses on ultra-thin gate oxide SOI MOSFETs after irradiation. IEEE Transactions on Nuclear Science, 2005, 52, 2252-2258.	2.0	14
102	Radiation-induced breakdown in 1.7 nm oxynitrided gate oxides. IEEE Transactions on Nuclear Science, 2005, 52, 2210-2216.	2.0	8
103	IONIZING RADIATION EFFECTS ON ULTRA-THIN OXIDE MOS STRUCTURES. International Journal of High Speed Electronics and Systems, 2004, 14, 563-574.	0.7	1
104	Incidence of oxide and interface degradation on MOSFET performance. Microelectronic Engineering, 2004, 72, 66-70.	2.4	3
105	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
106	Drain current decrease in MOSFETs after heavy ion irradiation. IEEE Transactions on Nuclear Science, 2004, 51, 3150-3157.	2.0	36
107	Collapse of MOSFET Drain Current After Soft Breakdown. IEEE Transactions on Device and Materials Reliability, 2004, 4, 63-72.	2.0	24
108	Ionising radiation effects on MOSFET drain current. Microelectronics Reliability, 2003, 43, 1247-1251.	1.7	3

#	ARTICLE	IF	CITATIONS
109	Degradation dynamics of ultrathin gate oxides subjected to electrical stress. IEEE Electron Device Letters, 2003, 24, 604-606.	3.9	13
110	Statistical model for radiation-induced wear-out of ultra-thin gate oxides after exposure to heavy ion irradiation. IEEE Transactions on Nuclear Science, 2003, 50, 2167-2175.	2.0	16
111	Stochastic modeling of progressive breakdown in ultrathin SiO <sub>2</sub> films. Applied Physics Letters, 2003, 83, 5014-5016.	3.3	4
112	Logistic model for leakage current in electrical stressed ultra-thin gate oxides. Electronics Letters, 2003, 39, 749.	1.0	2
113	Wear-out and breakdown of ultra-thin gate oxides after irradiation. Electronics Letters, 2002, 38, 1137.	1.0	9
114	Stress induced leakage current under pulsed voltage stress. Solid-State Electronics, 2002, 46, 399-405.	1.4	8
115	Soft breakdown current noise in ultra-thin gate oxides. Solid-State Electronics, 2002, 46, 1019-1025.	1.4	17
116	Time decay of stress induced leakage current in thin gate oxides by low-field electron injection. Solid-State Electronics, 2001, 45, 1345-1353.	1.4	13
117	Detrended fluctuation analysis of the soft breakdown current. Microelectronic Engineering, 2001, 59, 49-53.	2.4	1
118	Noise characteristics of radiation-induced soft breakdown current in ultrathin gate oxides. IEEE Transactions on Nuclear Science, 2001, 48, 2093-2100.	2.0	30
119	Post-radiation-induced soft breakdown conduction properties as a function of temperature. Applied Physics Letters, 2001, 79, 1336-1338.	3.3	17
120	Pulsed voltage stress on thin oxides. Electronics Letters, 2000, 36, 1319.	1.0	1
121	Total dose dependence of radiation-induced leakage current in ultra-thin gate oxides. Microelectronics Reliability, 1999, 39, 221-226.	1.7	22
122	Low-field current on thin oxides after constant current or radiation stresses. Journal of Non-Crystalline Solids, 1999, 245, 232-237.	3.1	1
123	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
124	Collapse of MOSFET drain current after soft breakdown and its dependence on the transistor aspect ratio W/L, 0, , .		22
125	Degradation of low frequency noise and DC characteristics on MOSFETs and its correlation with SILC. , 0, , .		1
126	Logistic modeling of progressive breakdown in ultrathin gate oxides. , 0, , .		1



#	ARTICLE	IF	CITATIONS
127	Leaky spots in irradiated SiO <sub>2</sub> /gate oxides observed with C-AFM. , 0, , .		2
128	Modeling mosfet and circuit degradation through spice. , 0, , .		2