

Zeynep Aelik-Butler

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

1,153
citations

304743

22
h-index

434195

31
g-index

70
all docs

70
docs citations

70
times ranked

992
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Micromachined infrared bolometers on flexible polyimide substrates. <i>Sensors and Actuators A: Physical</i> , 2005, 118, 49-56. | 4.1 | 91 |
| 2 | Characterization of electromigration parameters in VLSI metallizations by noise measurements. <i>Solid-State Electronics</i> , 1991, 34, 185-188. | 1.4 | 80 |
| 3 | Micromachined YBaCuO capacitor structures as uncooled pyroelectric infrared detectors. <i>Journal of Applied Physics</i> , 1998, 84, 1680-1687. | 2.5 | 44 |
| 4 | Extraction of oxide trap properties using temperature dependence of random telegraph signals in submicron metal-oxide-semiconductor field-effect transistors. <i>Journal of Applied Physics</i> , 2001, 89, 5526-5532. | 2.5 | 43 |
| 5 | Self-Powered Tactile Pressure Sensors Using Ordered Crystalline ZnO Nanorods on Flexible Substrates Toward Robotic Skin and Garments. <i>IEEE Sensors Journal</i> , 2015, 15, 63-70. | 4.7 | 40 |
| 6 | Characterization and performance analysis of Li-doped ZnO nanowire as a nano-sensor and nano-energy harvesting element. <i>Nano Energy</i> , 2018, 50, 159-168. | 16.0 | 37 |
| 7 | Micromachined integrated pressure-thermal sensors on flexible substrates. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 1984-1992. | 2.6 | 36 |
| 8 | Temperature Sensor in a Flexible Substrate. <i>IEEE Sensors Journal</i> , 2012, 12, 864-869. | 4.7 | 36 |
| 9 | MEMS Force Sensor in a Flexible Substrate Using Nichrome Piezoresistors. <i>IEEE Sensors Journal</i> , 2013, 13, 4081-4089. | 4.7 | 32 |
| 10 | Complex random telegraph signals in 0.06 μm^2 MDD n-MOSFETs. <i>Solid-State Electronics</i> , 2000, 44, 1013-1019. | 1.4 | 31 |
| 11 | Design, fabrication and characterization of flexible MEMS accelerometer using multi-Level UV-LIGA. <i>Sensors and Actuators A: Physical</i> , 2017, 263, 530-541. | 4.1 | 31 |
| 12 | Micromachined bolometers on polyimide. <i>Sensors and Actuators A: Physical</i> , 2006, 132, 452-459. | 4.1 | 30 |
| 13 | Physics-based 1/f noise model for MOSFETs with nitrated high- κ gate dielectrics. <i>Solid-State Electronics</i> , 2008, 52, 711-724. | 1.4 | 30 |
| 14 | Piezoelectric ZnO nanorod carpet as a NEMS vibrational energy harvester. <i>Nano Energy</i> , 2014, 10, 71-82. | 16.0 | 30 |
| 15 | A model for electromigration and low-frequency noise in thin metal films. <i>Solid-State Electronics</i> , 1991, 34, 911-916. | 1.4 | 29 |
| 16 | Prediction of electromigration failure in W/Al-Cu multilayered metallizations by noise measurements. <i>Solid-State Electronics</i> , 1992, 35, 1209-1212. | 1.4 | 28 |
| 17 | Channel length scaling of 1/f noise in 0.18 μm technology MDD n-MOSFETs. <i>Solid-State Electronics</i> , 1999, 43, 1695-1701. | 1.4 | 28 |
| 18 | Piezoresistive polysilicon film obtained by low-temperature aluminum-induced crystallization. <i>Thin Solid Films</i> , 2010, 519, 479-486. | 1.8 | 27 |

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|----|--|------|-----------|
| 19 | Characterization of oxide traps in 0.15 μm^2 MOSFETs using random telegraph signals. <i>Microelectronics Reliability</i> , 2000, 40, 1875-1881. | 1.7 | 25 |
| 20 | Characterization of MEMS piezoresistive pressure sensors using AFM. <i>Ultramicroscopy</i> , 2010, 110, 1154-1160. | 1.9 | 25 |
| 21 | Device-Level Vacuum Packaging for RF MEMS. <i>Journal of Microelectromechanical Systems</i> , 2010, 19, 911-918. | 2.5 | 25 |
| 22 | Model for random telegraph signals in sub-micron MOSFETs. <i>Solid-State Electronics</i> , 2003, 47, 1443-1449. | 1.4 | 22 |
| 23 | A novel MEMS triboelectric energy harvester and sensor with a high vibrational operating frequency and wide bandwidth fabricated using UV-LIGA technique. <i>Sensors and Actuators A: Physical</i> , 2020, 313, 112175. | 4.1 | 22 |
| 24 | Pyroelectric effect in BaCuO thin films under laser illumination. <i>Journal of Applied Physics</i> , 1999, 85, 1075-1079. | 2.5 | 21 |
| 25 | noise and dark current components in HgCdTe MIS infrared detectors. <i>Solid-State Electronics</i> , 1996, 39, 127-132. | 1.4 | 20 |
| 26 | Effects of quantization on random telegraph signals observed in deep-submicron MOSFETs. <i>Microelectronics Reliability</i> , 2000, 40, 1823-1831. | 1.7 | 18 |
| 27 | Dielectric and pyroelectric response in Nb/semiconducting BaCuO /Nb structures. <i>Ferroelectrics</i> , 1998, 209, 517-539. | 0.6 | 17 |
| 28 | Nanocrystalline Piezoresistive Polysilicon Film by Aluminum-Induced Crystallization for Pressure-Sensing Applications. <i>IEEE Nanotechnology Magazine</i> , 2010, 9, 640-646. | 2.0 | 17 |
| 29 | An integrated piezoelectric zinc oxide nanowire micro-energy harvester. <i>Nano Energy</i> , 2016, 26, 456-465. | 16.0 | 17 |
| 30 | Micromachined force sensors using thin film nickel-chromium piezoresistors. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 065002. | 2.6 | 16 |
| 31 | A low-frequency noise model for advanced gate-stack MOSFETs. <i>Microelectronics Reliability</i> , 2009, 49, 103-112. | 1.7 | 14 |
| 32 | An improved physics-based 1/f noise model for deep sub-micron MOSFETs. <i>Solid-State Electronics</i> , 2001, 45, 351-357. | 1.4 | 13 |
| 33 | A Device-Level Vacuum-Packaging Scheme for Microbolometers on Rigid and Flexible Substrates. <i>IEEE Sensors Journal</i> , 2007, 7, 1012-1019. | 4.7 | 12 |
| 34 | A Stand-Alone, Physics-Based, Measurement-Driven Model and Simulation Tool for Random Telegraph Signals Originating From Experimentally Identified MOS Gate-Oxide Defects. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 1428-1436. | 3.0 | 12 |
| 35 | A noise model based on fluctuating defect states. <i>Solid-State Electronics</i> , 1993, 36, 407-410. | 1.4 | 10 |
| 36 | Improved low frequency noise characteristics of sub-micron MOSFETs with TaSiN/TiN gate on ALD HfO ₂ dielectric. <i>Microelectronics Reliability</i> , 2007, 47, 1228-1232. | 1.7 | 10 |

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|----|--|-----|-----------|
| 37 | Effect of nitrogen incorporation on $1/f$ noise performance of metal-oxide-semiconductor field effect transistors with HfSiON dielectric. Journal of Applied Physics, 2008, 103, 033706. | 2.5 | 10 |
| 38 | A Physics-Based Analytical $1/f$ Noise Model for RESURF LDMOS Transistors. IEEE Transactions on Electron Devices, 2013, 60, 677-683. | 3.0 | 10 |
| 39 | Hall effect in semiconducting epitaxial and amorphous Y-Ba-Cu-O thin films. Journal of Applied Physics, 1997, 81, 6866-6873. | 2.5 | 8 |
| 40 | A hybrid electrostatic micro-harvester incorporating in-plane overlap and gap closing mechanisms. Journal of Micromechanics and Microengineering, 2015, 25, 035027. | 2.6 | 8 |
| 41 | Wafer-Level Vacuum-Packaged Flexible and Bendable Micro Accelerometer. IEEE Sensors Journal, 2018, 18, 4089-4096. | 4.7 | 8 |
| 42 | Self-Packaged, Flexible, Bendable MEMS Sensors and Energy Harvesters. IEEE Sensors Journal, 2021, 21, 12606-12617. | 4.7 | 8 |
| 43 | Two Types of E' Centers as Gate Oxide Defects Responsible for Hole Trapping and Random Telegraph Signals in pMOSFETs. IEEE Transactions on Electron Devices, 2018, 65, 4527-4534. | 3.0 | 7 |
| 44 | Flexible Sensors—A Review. Journal of Nanoelectronics and Optoelectronics, 2006, 1, 194-202. | 0.5 | 7 |
| 45 | Design and fabrication of self-packaged, flexible MEMS accelerometer. , 2015, , . | | 6 |
| 46 | Device-level vacuum packaged uncooled microbolometer on a polyimide substrate. Infrared Physics and Technology, 2016, 79, 50-57. | 2.9 | 6 |
| 47 | Channel hot carrier induced volatile oxide traps responsible for random telegraph signals in submicron pMOSFETs. Solid-State Electronics, 2020, 164, 107745. | 1.4 | 6 |
| 48 | Spatial correlation measurements of noise in semiconductors. Solid-State Electronics, 1988, 31, 241-244. | 1.4 | 5 |
| 49 | Flexible Conformal Micromachined Absolute Pressure Sensors. Journal of Microelectromechanical Systems, 2015, 24, 1400-1408. | 2.5 | 5 |
| 50 | Design and Optimization of a MEMS Triboelectric Energy Harvester for Nano-sensor Applications. , 2019, , . | | 5 |
| 51 | Origin of $1/f$ noise in lateral PNP bipolar transistors. Microelectronics Reliability, 2004, 44, 89-94. | 1.7 | 3 |
| 52 | Hot-Carrier- and Constant-Voltage-Stress-Induced Low-Frequency Noise in Nitrided High- k Dielectric MOSFETs. IEEE Transactions on Device and Materials Reliability, 2009, 9, 203-208. | 2.0 | 3 |
| 53 | Self-powered, tactile pressure sensing skin using crystalline ZnO nanorod arrays for robotic applications. , 2013, , . | | 3 |
| 54 | Wafer-level packaged flexible and bendable MEMS accelerometer for robotics and prosthetics. , 2017, , . | | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Array of Linear and Nonlinear Electrostatic Energy Harvesters for Broadband Energy Harvesting. , 2019, , . | | 3 |
| 56 | Identification of Channel Hot Carrier Stress-Induced Oxide Traps Leading to Random Telegraph Signals in pMOSFETs. IEEE Transactions on Electron Devices, 2021, 68, 713-719. | 3.0 | 3 |
| 57 | Oxide Trap-Induced RTS in MOSFETs. , 2020, , 553-607. | | 3 |
| 58 | Dependence of low frequency noise in SiGe heterojunction bipolar transistors on the dimensional and structural features of extrinsic regions. Solid-State Electronics, 2006, 50, 1430-1439. | 1.4 | 2 |
| 59 | Guest Editorial: Special issue on flexible sensors and sensing systems. IEEE Sensors Journal, 2013, 13, 3854-3856. | 4.7 | 2 |
| 60 | Low-profile, self-packaged uncooled microbolometer on a flexible substrate towards an infrared radiation sensitive skin. , 2014, , . | | 2 |
| 61 | Smart Skin: Multifunctional Flexible Sensor Arrays. Women in Engineering and Science, 2020, , 65-78. | 0.4 | 2 |
| 62 | Two-level noise switching in YBa2Cu3O7 microbridges. Solid-State Electronics, 1993, 36, 1507-1510. | 1.4 | 1 |
| 63 | MEMS accelerometers on polyimides for failure assessment in aerospace systems. , 2010, , . | | 1 |
| 64 | Design and optimization of an electrostatic micro-harvester for sensors applications. , 2013, , . | | 1 |
| 65 | ZnO nano-sensors and nano-energy harvesters. , 2017, , . | | 1 |
| 66 | Investigation of Quantization Effects on RTS Due to Oxide Traps Induced by Channel Hot-Carrier-Stressing in pMOSFETs. IEEE Transactions on Device and Materials Reliability, 2020, 20, 678-685. | 2.0 | 1 |
| 67 | Guest Editorial Special Issue on Papers From the IEEE FLEPS Conference 2019. IEEE Sensors Journal, 2020, 20, 7493-7493. | 4.7 | 1 |
| 68 | Modeling of high-Tc superconductor parametric amplifiers and mixers. Physica C: Superconductivity and Its Applications, 1994, 231, 271-276. | 1.2 | 0 |
| 69 | A NEMS vibration energy harvester using ordered piezoelectric Zinc Oxide nanowire arrays. , 2012, , . | | 0 |
| 70 | A piezoelectric micro-energy harvester for nanosensors. , 2015, , . | | 0 |