

# Saeed Mohammadi

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3900515/publications.pdf>

Version: 2024-02-01

76  
papers

900  
citations

567281

15  
h-index

526287

27  
g-index

78  
all docs

78  
docs citations

78  
times ranked

915  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Ground plane fin-shaped field effect transistor (GP-FinFET): A FinFET for low leakage power circuits. <i>Microelectronic Engineering</i> , 2012, 95, 74-82.   | 2.4 | 111       |
| 2  | Compact Models Based on Transmission-Line Concept for Integrated Capacitors and Inductors. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2006, 54, 4141-4148.   | 4.6 | 61        |
| 3  | 1/f noise of SnO <sub>2</sub> nanowire transistors. <i>Applied Physics Letters</i> , 2008, 92, 243120.  | 3.3 | 53        |
| 4  | High-Efficiency Microwave and mm-Wave Stacked Cell CMOS SOI Power Amplifiers. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2016, 64, 2025-2038.  | 4.6 | 48        |
| 5  | A Broadband Stacked Power Amplifier in 45-nm CMOS SOI Technology. <i>IEEE Journal of Solid-State Circuits</i> , 2013, 48, 2775-2784.  | 5.4 | 45        |
| 6  | Photonic crystal double-coupled cavity waveguides and their application in design of slow-light delay lines. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2018, 28, 61-69.                         | 2.0 | 45        |
| 7  | All-optical photonic crystal memory cells based on cavities with a dual-argument hysteresis feature. <i>Optics Communications</i> , 2019, 430, 323-335.   | 2.1 | 45        |
| 8  | A Subthreshold Low Phase Noise CMOS LC VCO for Ultra Low Power Applications. <i>IEEE Microwave and Wireless Components Letters</i> , 2007, 17, 796-798.   | 3.2 | 43        |
| 9  | Potential and Drain Current Modeling of Gate-All-Around Tunnel FETs Considering the Junctions Depletion Regions and the Channel Mobile Charge Carriers. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 5021-5029. | 3.0 | 31        |
| 10 | An Analytical Model for Double-Gate Tunnel FETs Considering the Junctions Depletion Regions and the Channel Mobile Charge Carriers. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 1276-1284.                     | 3.0 | 25        |
| 11 | A Wideband Power Amplifier in 45 nm CMOS SOI Technology for X Band Applications. <i>IEEE Microwave and Wireless Components Letters</i> , 2013, 23, 587-589.   | 3.2 | 23        |
| 12 | Vertical Cladding Layer-Based Doping-Less Tunneling Field Effect Transistor: A Novel Low-Power High-Performance Device. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1474-1479.                                 | 3.0 | 19        |
| 13 | A 500mW 2.4GHz CMOS Subthreshold Mixer for Ultra Low Power Applications. , 2007, , .  |     | 18        |
| 14 | A Wideband RF Power Amplifier in 45-nm CMOS SOI Technology With Substrate Transferred to AlN. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2012, 60, 4089-4096.  | 4.6 | 18        |
| 15 | An Analytical Drain Current Model for the Cylindrical Channel Gate-All-Around Heterojunction Tunnel FETs. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 3646-3651.   | 3.0 | 18        |
| 16 | Tunable, Dual-Gate, Silicon-on-Insulator (SOI) Nanoelectromechanical Resonators. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 1093-1099.   | 2.0 | 16        |
| 17 | Germanium-source L-shaped TFET with dual in-line tunneling junction. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.   | 2.3 | 15        |
| 18 | A simulation study to improve the efficiency of ZnO <sub>1-x</sub> Sx/Cu <sub>2</sub> ZnSn (Sy, Se <sub>1-y</sub> ) <sub>4</sub> solar cells by composition-ratio control. <i>Optical Materials</i> , 2018, 78, 259-265.    | 3.6 | 14        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Vertical Tunneling Field-Effect Transistor With Germanium Source and T-Shaped Silicon Channel for Switching and Biosensing Applications: A Simulation Study. IEEE Transactions on Electron Devices, 2022, 69, 5170-5176.                                   | 3.0 | 14        |
| 20 | High-Q micromachined three-dimensional integrated inductors for high-frequency applications. Journal of Vacuum Science & Technology B, 2007, 25, 264.  | 1.3 | 12        |
| 21 | Enhanced on-state current and suppressed ambipolarity in germanium-source dual vertical-channel TFET. Semiconductor Science and Technology, 2021, 36, 045020.  | 2.0 | 12        |
| 22 | Switching Performance Enhancement in Nanotube Double-Gate Tunneling Field-Effect Transistor With Germanium Source Regions. IEEE Transactions on Electron Devices, 2022, 69, 364-369.   | 3.0 | 12        |
| 23 | High performance micro-machined inductors on CMOS substrate. , 2005, , .   |     | 11        |
| 24 | Dielectric Modulated Doping-Less Tunnel Field-Effect Transistor, a Novel Biosensor Based on Cladding Layer Concept. IEEE Sensors Journal, 2022, 22, 10308-10314.   | 4.7 | 11        |
| 25 | Simulation analysis of a novel fully depleted SOI MOSFET: Electrical and thermal performance improvement through trapezoidally doped channel and silicon nitride buried insulator. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 69, 27-33. | 2.7 | 10        |
| 26 | First principles characterization of defect-free and vacancy-defected monolayer PtSe2 gas sensors. Sensors and Actuators A: Physical, 2020, 313, 112209.   | 4.1 | 10        |
| 27 | Reconfigurable CMOS Tuners for Software-Defined Radio. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2768-2774.  | 4.6 | 8         |
| 28 | 3-D CMOS Circuits Based on Low-Loss Vertical Interconnects on Parylene-N. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 48-56.   | 4.6 | 8         |
| 29 | Flexible strain sensors based on electrostatically actuated graphene flakes. Journal of Micromechanics and Microengineering, 2015, 25, 075016.   | 2.6 | 8         |
| 30 | Shot Noise Thermometry for Thermal Characterization of Templated Carbon Nanotubes. IEEE Transactions on Components and Packaging Technologies, 2010, 33, 178-183.  | 1.3 | 7         |
| 31 | A Universal Analytical Potential Model for Double-Gate Heterostructure Tunnel FETs. IEEE Transactions on Electron Devices, 2019, 66, 1605-1612.  | 3.0 | 7         |
| 32 | Switching Performance Investigation of a Gate-All-Around Core-Source InGaAs/InP TFET. Transactions on Electrical and Electronic Materials, 2021, 22, 502-508.  | 1.9 | 7         |
| 33 | Modeling of drain current, capacitance and transconductance in thin film undoped symmetric DG MOSFETs including quantum effects. Microelectronics Reliability, 2010, 50, 338-345.  | 1.7 | 6         |
| 34 | A Circuit for Simultaneous Reception of Data and Power Using a Solar Cell. IEEE Transactions on Green Communications and Networking, 2021, 5, 2065-2075.   | 5.5 | 6         |
| 35 | Double quantum-well nanotube tunneling field-effect transistor. Materials Science in Semiconductor Processing, 2022, 142, 106514.  | 4.0 | 6         |
| 36 | Cylindrical electron-hole bilayer TFET with a single surrounding gate and induced quantum confinement. Journal of Computational Electronics, 2022, 21, 235-242.  | 2.5 | 6         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | High-Q Differential Inductors for RFIC Design. , 2003, , .  |     | 5         |
| 38 | Nanotechnology and Active Thin Films for Compact RF Components and Agile Systems. Ferroelectrics, 2006, 342, 163-182.   | 0.6 | 5         |
| 39 | High Performance 3-D Helical RF Transformers. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .   | 0.0 | 5         |
| 40 | A reconfigurable MEMS-less CMOS tuner for software defined radio. , 2008, , .   |     | 5         |
| 41 | Compact modeling of short-channel effects in symmetric and asymmetric 3-T/4-T double gate MOSFETs. Microelectronics Reliability, 2011, 51, 543-549.   | 1.7 | 5         |
| 42 | Electromechanical resonator based on electrostatically actuated graphene-doped PVP nanofibers. Nanotechnology, 2013, 24, 135201.  | 2.6 | 5         |
| 43 | 3-D Integration of 10-GHz Filter and CMOS Receiver Front-End. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 2298-2305.  | 4.6 | 4         |
| 44 | Drain current model for strained-Si/Si <sub>1-x</sub> Ge <sub>x</sub> /strained-Si double-gate MOSFETs including quantum effects. Semiconductor Science and Technology, 2011, 26, 095022.             | 2.0 | 4         |
| 45 | Trap studies in silicon nanowire junctionless transistors using low-frequency noise. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 011804.                | 1.2 | 4         |
| 46 | Tunneling FET based on defect-free, vacancy-defected, and passivated monolayer PtSe <sub>2</sub> channel: A first principles study. Materials Science in Semiconductor Processing, 2022, 138, 106258. | 4.0 | 4         |
| 47 | The Effect of Low-K Dielectrics on RFIC Inductors. , 2003, , .  |     | 3         |
| 48 | Mask Programmable CMOS Transistor Arrays for Wideband RF Integrated Circuits. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 1439-1446.  | 4.6 | 3         |
| 49 | A RESURF LDMOSFET with a dummy gate on partial SOI. Journal of the Korean Physical Society, 2012, 60, 842-848.  | 0.7 | 3         |
| 50 | Design of high-Q 3-D integrated inductors for high frequency applications. Analog Integrated Circuits and Signal Processing, 2006, 50, 89-93.   | 1.4 | 2         |
| 51 | Single-Walled Carbon Nanotube Mixers. , 2006, , .   |     | 2         |
| 52 | 3-D Integrated Inductors and Transformers on Liquid Crystal Polymer Substrate. , 2006, , .  |     | 2         |
| 53 | Heterogeneously Integrated 10Gb/s CMOS Optoelectronic Receiver for Long Haul Telecommunication. , 2007, , .   |     | 2         |
| 54 | 1.3-1.55- $\mu$ m CMOS/InP Optoelectronic Receiver Using a Self-Aligned Wafer Level Integration Technology. IEEE Photonics Technology Letters, 2007, 19, 1066-1068.                                   | 2.5 | 2         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Design and implementation of a novel three dimensional CMOS low noise amplifier with transmission lines on parylene-N. , 2009, , .  |     | 2         |
| 56 | An Integration Technology for RF and Microwave Circuits Based on Interconnect Programming. IEEE Transactions on Advanced Packaging, 2010, 33, 362-369.  | 1.6 | 2         |
| 57 | A Vacuum Multi-Finger Transistor in CMOS Technology. , 2018, , .  |     | 2         |
| 58 | Physical and analytical modeling of drain current of double-gate heterostructure tunnel FETs. Semiconductor Science and Technology, 2019, 34, 015009.   | 2.0 | 2         |
| 59 | A Self-Assembled High Current Si Field Emitter Array. , 2021, , .   |     | 2         |
| 60 | A 0.43 g Wireless Battery-Less Neural Recorder With On-Chip Microelectrode Array and Integrated Flexible Antenna. IEEE Microwave and Wireless Components Letters, 2022, 32, 772-775.  | 3.2 | 2         |
| 61 | An Efficient Quantum-Based Model for the Threshold Voltage of Thin Film Double Gate/Silicon on Insulator Silicon Metal Oxide Semiconductor Field Effect Transistors. Japanese Journal of Applied Physics, 2010, 49, 024304. | 1.5 | 1         |
| 62 | A fully-integrated K<sub>a</sub>-band stacked power amplifier in 45nm CMOS SOI technology. , 2013, , .  |     | 1         |
| 63 | Electromechanical resonators based on electrospun ZnO nanofibers. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2014, 13, 043011.   | 0.9 | 1         |
| 64 | Small-signal modeling of graphene barristors. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 72, 95-100.  | 2.7 | 1         |
| 65 | Recessed Gate Cylindrical Heterostructure TFET, a Device with Extremely Steep Subthreshold Swing. Transactions on Electrical and Electronic Materials, 2022, 23, 81-87.   | 1.9 | 1         |
| 66 | Analytical investigation on the electro-optical characteristics of white graphene. Journal of Computational Electronics, 2021, 20, 1860-1867.   | 2.5 | 1         |
| 67 | Effect of Substrate Conductivity on Si Self-Assembled Field Emission Arrays. , 2021, , .  |     | 1         |
| 68 | A Stacked Transistors CMOS SOI Power Amplifier For 5G Applications. , 2022, , .   |     | 1         |
| 69 | The study of low frequency noise of single-walled carbon nanotube transistors. Device Research Conference, IEEE Annual, 2007, , .   | 0.0 | 0         |
| 70 | Aligned single-walled carbon nanotube thin-film transistor arrays for transparent electronics. , 2008, , .  |     | 0         |
| 71 | A dual-mode programmable distributed amplifier/mixer. , 2009, , .   |     | 0         |
| 72 | Transparent driving thin-film transistor circuits based on uniformly grown single-walled carbon nanotubes network. , 2009, , .  |     | 0         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Performance Improvement of Partially Silicon-on-Insulator Lateral Double-Diffused Metal-Oxide-Semiconductor Field-Effect Transistors Using Doping-Engineered Drift Region. Japanese Journal of Applied Physics, 2012, 51, 101201. | 1.5 | 0         |
| 74 | Characterization and Physical Modeling of Turn-On Voltage, Saturation Voltage and Transition Slope in Graphene Barristors. IEEE Nanotechnology Magazine, 2015, 14, 673-680.   | 2.0 | 0         |
| 75 | A Highly Sensitive Microwave Biosensor for Single Biological Cell Characterization. , 2018, , .   |     | 0         |
| 76 | A Highly Sensitive RF Biosensor Based on Splitter/Combiner Configuration for Single-Cell Characterization. , 2018, , .  |     | 0         |