

# Kristel Fobelets

## List of Publications by Year in descending order

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Version: 2024-02-01

108  
papers

795  
citations

623734

14  
h-index

677142

22  
g-index

109  
all docs

109  
docs citations

109  
times ranked

769  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Low Power Respiration Monitoring Using Wearable 3D Knitted Helical Coils. IEEE Sensors Journal, 2022, 22, 1374-1381.   | 4.7 | 8         |
| 2  | Respiratory Inductive Plethysmography System for Knitted Helical Coils. , 2022, 15, .  |     | 1         |
| 3  | Ambulatory Monitoring Using Knitted 3D Helical Coils. , 2022, 15, .  |     | 1         |
| 4  | Reduced Drift of CMOS ISFET pH Sensors Using Graphene Sheets. IEEE Sensors Journal, 2021, 21, 14609-14618.   | 4.7 | 9         |
| 5  | Responsivity enhancement of a strained silicon field-effect transistor detector at 0.3 THz using the terajet effect. Optics Letters, 2021, 46, 3061.           | 3.3 | 10        |
| 6  | Internal Thermoelectric Cooling in Nanosheet Gate-All-Around FETs Using Schottky Drain Contacts. IEEE Transactions on Electron Devices, 2021, 68, 4156-4160.   | 3.0 | 3         |
| 7  | Imaging resolution enhancement using terajet effect at 0.3 THz. , 2021, , .  |     | 0         |
| 8  | Numerical Study of the Coupling of Sub-Terahertz Radiation to n-Channel Strained-Silicon MODFETs. Sensors, 2021, 21, 688.                                      | 3.8 | 1         |
| 9  | Electromagnetic Simulation of the Sub-THz Radiation Coupling to n-channel strained-silicon MODFETs. , 2021, , .  |     | 0         |
| 10 | Magnetic coupling with 3D knitted helical coils. Sensors and Actuators A: Physical, 2021, 332, 113213.   | 4.1 | 5         |
| 11 | Effect of the Front and Back Illumination on Sub-Terahertz Detection Using n-Channel Strained-Silicon MODFETs. Applied Sciences (Switzerland), 2020, 10, 5959. | 2.5 | 3         |
| 12 | Geometrical influence on Self Heating in Nanowire and Nanosheet FETs using TCAD Simulations. , 2020, , .   |     | 6         |
| 13 | Knitted coils as breathing sensors. Sensors and Actuators A: Physical, 2020, 306, 111945.  | 4.1 | 8         |
| 14 | Characterization of Knitted Coils for e-Textiles. IEEE Sensors Journal, 2019, 19, 7835-7840.   | 4.7 | 14        |
| 15 | Mechanisms for enhancement of sensing performance in CMOS ISFET arrays using reactive ion etching. Sensors and Actuators B: Chemical, 2019, 292, 297-307.      | 7.8 | 17        |
| 16 | Knitted Coil for Inductive Plethysmography. Proceedings (mdpi), 2019, 32, .  | 0.2 | 3         |
| 17 | Cyclic Voltammetry Peaks Due to Deep Level Traps in Si Nanowire Array Electrodes. IEEE Nanotechnology Magazine, 2018, 17, 154-160.                             | 2.0 | 2         |
| 18 | Performance improvement of commercial ISFET sensors using reactive ion etching. Microelectronic Engineering, 2018, 192, 61-65.                                 | 2.4 | 7         |

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|----|--|-----|-----------|
| 19 | Sub-THz Imaging Using Non-Resonant HEMT Detectors. <i>Sensors</i> , 2018, 18, 543.   | 3.8 | 12        |
| 20 | TiO <sub>2</sub> coated Si nanowire electrodes for electrochemical double layer capacitors in room temperature ionic liquid. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 415503. | 2.8 | 11        |
| 21 | Improving the pH sensitivity of ISFET arrays with reactive ion etching. , 2017, , .  |     | 1         |
| 22 | Sub-Micron Gate Length Field Effect Transistors as Broad Band Detectors of Terahertz Radiation. <i>International Journal of High Speed Electronics and Systems</i> , 2016, 25, 1640020.    | 0.7 | 9         |
| 23 | Oxide-coated silicon nanowire array capacitor electrodes in room temperature ionic liquid. <i>Electrochimica Acta</i> , 2016, 210, 32-37.  | 5.2 | 13        |
| 24 | Optimization of THz response of strained Si MODFETs. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2015, 12, 1401-1404.  | 0.8 | 2         |
| 25 | Efficient tool flow for 3D photovoltaic modelling. <i>Computer Physics Communications</i> , 2015, 193, 124-130.  | 7.5 | 8         |
| 26 | Influence of Minority Carrier Gas Donors on Low-Frequency Noise in Silicon Nanowires. <i>IEEE Nanotechnology Magazine</i> , 2014, 13, 1176-1180.   | 2.0 | 4         |
| 27 | High density micro-pyramids with silicon nanowire array for photovoltaic applications. <i>Nanotechnology</i> , 2014, 25, 485202.   | 2.6 | 32        |
| 28 | Two-Sided Silicon Nanowire Array/Bulk Thermoelectric Power Generator. <i>IEEE Electron Device Letters</i> , 2014, 35, 596-598.   | 3.9 | 28        |
| 29 | Spin-on-doping for output power improvement of silicon nanowire array based thermoelectric power generators. <i>Journal of Applied Physics</i> , 2014, 115, 214306.                        | 2.5 | 17        |
| 30 | Impact of ammonia on the electrical properties of p-type Si nanowire arrays. <i>Journal of Applied Physics</i> , 2013, 114, 173702.  | 2.5 | 10        |
| 31 | n-Si/p-Si <sub>1-x</sub> Ge <sub>x</sub> nanowire arrays for thermoelectric power generation. <i>Solid-State Electronics</i> , 2013, 83, 107-112.  | 1.4 | 12        |
| 32 | Terahertz detection using Si-SiGe MODFETs. , 2013, , .   |     | 0         |
| 33 | Terahertz imaging using strained-Si MODFETs as sensors. <i>Solid-State Electronics</i> , 2013, 83, 113-117.  | 1.4 | 16        |
| 34 | Far infrared response of silicon nanowire arrays. <i>RSC Advances</i> , 2013, 3, 4434.   | 3.6 | 5         |
| 35 | Influence of ambient on conductivity and 1/f noise in Si nanowire arrays. , 2013, , .  |     | 2         |
| 36 | Ag-assisted lateral etching of Si nanowires and its application to nanowire transfer. <i>Applied Physics Letters</i> , 2013, 103, .  | 3.3 | 11        |

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|----|--|-----|-----------|
| 37 | Conductance modulation of Si nanowire arrays. Applied Physics Letters, 2012, 101, .  | 3.3 | 13        |
| 38 | Thermoelectric Performance of $\text{Si}_{0.8}\text{Ge}_{0.2}$ Nanowire Arrays. IEEE Transactions on Electron Devices, 2012, 59, 3193-3198.                          | 3.0 | 21        |
| 39 | $\text{Si}_{1-x}\text{Ge}_x$ Nanowire Arrays for Thermoelectric Power Generation. , 2012, , .  |     | 3         |
| 40 | Electrical Transport in Polymer-Covered Silicon Nanowires. IEEE Nanotechnology Magazine, 2012, 11, 661-665.  | 2.0 | 8         |
| 41 | Terahertz Imaging Using Strained-Si MODFETs as Sensors. , 2012, , .  |     | 1         |
| 42 | Trap density in Ge-on-Si pMOSFETs with Si intermediate layers. , 2011, , .   |     | 0         |
| 43 | Coupled inductive sensors for monitoring the pH of electrolyte solutions. , 2011, , .  |     | 1         |
| 44 | Strained silicon modulation field-effect transistor as a new sensor of terahertz radiation. Semiconductor Science and Technology, 2011, 26, 105006.                  | 2.0 | 16        |
| 45 | Mobility of Holes in Nanometer Ge-on-Si p-Type Metal-Oxide-Semiconductor Field-Effect Transistors at Low Temperatures. Acta Physica Polonica A, 2011, 120, 933-935.  | 0.5 | 0         |
| 46 | Terahertz photomixing in strained silicon MODFET. , 2010, , .  |     | 0         |
| 47 | Field-Effect Transistors Using Silicon Nanowires Prepared by Electroless Chemical Etching. IEEE Electron Device Letters, 2010, 31, 860-862.                          | 3.9 | 17        |
| 48 | Screen-Grid Field Effect Transistor for sensing Bio-Molecules. Materials Research Society Symposia Proceedings, 2009, 1191, 106.                                     | 0.1 | 0         |
| 49 | $1/f$ Noise in p-Channel Screen-Grid Field Effect Transistors (SGrFETs) as a Device Evaluation Tool. , 2009, , .   |     | 0         |
| 50 | $1/f$ Noise and trap density in n-channel strained-Si/SiGe modulation doped field effect transistors. Solid-State Electronics, 2009, 53, 626-629.                    | 1.4 | 3         |
| 51 | Analysis of RF noise performance of Si/SiGe pseudomorphic MOSFETs. , 2009, , .   |     | 0         |
| 52 | Noise in strained Si MOSFETs for low-power applications. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P01045.                                | 2.3 | 2         |
| 53 | Unipolar rectifying silicon nanowiresâ€™ TCAD study. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2481-2484.                                     | 2.7 | 0         |
| 54 | Strained-Si modulation doped field effect transistors as detectors of terahertz and sub-terahertz radiation. Semiconductor Science and Technology, 2008, 23, 105001. | 2.0 | 15        |

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|----|---|-----|-----------|
| 55 | ANALOG AND DIGITAL PERFORMANCE OF THE SCREEN-GRID FIELD EFFECT TRANSISTOR (SGRFET). International Journal of High Speed Electronics and Systems, 2008, 18, 783-792.   | 0.7 | 0         |
| 56 | Correlation between flicker noise and current linearity in ferromagnetic-GaAs-metal tunnel contacts. , 2008, , .  |     | 0         |
| 57 | Influence of the Ge concentration in the virtual substrate on the low frequency noise in strained-Si surface n-channel metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2008, 103, 044501. | 2.5 | 8         |
| 58 | Low Frequency Noise in Insulated-Gate Strained-Si n-Channel Modulation Doped Field Effect Transistors. Japanese Journal of Applied Physics, 2007, 46, 4011-4015.  | 1.5 | 3         |
| 59 | Study of MOS-gated strained-Si Buried Channel Field Effect Transistors. IETE Journal of Research, 2007, 53, 253-262.  | 2.6 | 1         |
| 60 | A novel 3D embedded gate field effect transistor â€“ Screen-grid FET â€“ Device concept and modelling. Solid-State Electronics, 2007, 51, 749-756.  | 1.4 | 9         |
| 61 | Visualisation of Ge Condensation in SOI. Materials Research Society Symposia Proceedings, 2006, 913, 1.   | 0.1 | 0         |
| 62 | SiGe HMOSFET monolithic inverting current mirror. Solid-State Electronics, 2005, 49, 591-594.   | 1.4 | 1         |
| 63 | DC Performance of Deep Submicrometer Schottky-Gated n-Channel Si:SiGe HFETs at Low Temperatures. IEEE Transactions on Electron Devices, 2005, 52, 2067-2074.  | 3.0 | 6         |
| 64 | Noise in nanometric s-Si MOSFET for low-power applications. AIP Conference Proceedings, 2005, , .   | 0.4 | 0         |
| 65 | Monolithic large-signal transimpedance amplifier for use in multi-gigabit, short-range optoelectronic interconnect applications. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2005, 52, 102-106.     | 2.2 | 7         |
| 66 | Study of current fluctuations in deep-submicron Si/SiGe n-channel MOSFET: impact of relevant technological parameters on the thermal noise performance. Semiconductor Science and Technology, 2004, 19, S191-S194.        | 2.0 | 4         |
| 67 | Dynamic threshold mode operation of p-channel Si and strained-SiGe MOSFETs between 10 K and 300 K. Semiconductor Science and Technology, 2004, 19, L95-L98.   | 2.0 | 2         |
| 68 | Analogue micropower FET techniques review. Semiconductor Science and Technology, 2004, 19, R19-R34.   | 2.0 | 3         |
| 69 | Colour coding Ge concentrations in Si <sub>1-x</sub> Ge <sub>x</sub> by bevelling and oxidation: CABOOM. Semiconductor Science and Technology, 2004, 19, 510-515.   | 2.0 | 2         |
| 70 | Average Drift Mobility and Apparent Sheet-Electron Density Profiles in Strained-Siâ€“SiGe Buried-Channel Depletion-Mode n-MOSFETs. IEEE Transactions on Electron Devices, 2004, 51, 1309-1314.                            | 3.0 | 7         |
| 71 | Comparison of sub-micron Si:SiGe heterojunction nFETs to Si nMOSFET in present-day technologies. Solid-State Electronics, 2004, 48, 1401-1406.  | 1.4 | 11        |
| 72 | Buried-channel SiGe HMODFET device potential for micropower applications. Solid-State Electronics, 2004, 48, 1423-1431.   | 1.4 | 6         |

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|----|---|-----|-----------|
| 73 | SiGe virtual substrate HMOS transistor for analogue applications. Applied Surface Science, 2004, 224, 386-389.  | 6.1 | 6         |
| 74 | Effect of temperature on the transfer characteristic of a 0.5 $\mu$ m-gate Si:SiGe depletion-mode n-MODFET. Applied Surface Science, 2004, 224, 390-393.            | 6.1 | 16        |
| 75 | Temperature Dependence of Submicrometer Strained-Si Surface Channel n-Type MOSFETs in DT Mode. IEEE Electron Device Letters, 2004, 25, 334-336.                     | 3.9 | 7         |
| 76 | SiGe HMODFET $\mu$ KAIST $\mu$ Micropower Model and Amplifier Realization. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2004, 51, 1100-1105.   | 0.1 | 1         |
| 77 | Impact of virtual substrate quality on performance enhancements in strained Si/SiGe heterojunction n-channel MOSFETs. Solid-State Electronics, 2003, 47, 1289-1295. | 1.4 | 14        |
| 78 | Determining the thickness and composition of SiGe heterostructures using an optical microscope. Semiconductor Science and Technology, 2003, 18, 390-392.            | 2.0 | 1         |
| 79 | Monolithic micropower amplifier using SiGe n-MODFET device. Electronics Letters, 2003, 39, 884.   | 1.0 | 9         |
| 80 | Experimental Study of Depletion Mode Si/SiGe MOSFETs for Low-temperature Operation. , 2002, , .   |     | 0         |
| 81 | Strained Si/SiGe n-channel MOSFETs: impact of cross-hatching on device performance. Semiconductor Science and Technology, 2002, 17, 655-661.                        | 2.0 | 34        |
| 82 | Si $\delta$ -SiGe n-channel modulation-doped field effect transistor on air. Electronics Letters, 2002, 38, 1064.   | 1.0 | 1         |
| 83 | Simulations of Si:SiGe MODFET analogue applications. International Journal of Electronics, 2002, 89, 593-602.   | 1.4 | 1         |
| 84 | Optimised n-channel Si/SiGe HFETs design for VTH shift immunity. Solid-State Electronics, 2002, 46, 2241-2245.  | 1.4 | 3         |
| 85 | In situ Raman spectroscopy of the selective etching of antimonides in GaSb/AlSb/InAs heterostructures. Semiconductor Science and Technology, 1998, 13, 399-403.     | 2.0 | 20        |
| 86 | MOS gated Si:SiGe quantum wells formed by anodic oxidation. Semiconductor Science and Technology, 1998, 13, 1442-1445.  | 2.0 | 6         |
| 87 | Si:SiGe MODFET current mirror. Electronics Letters, 1998, 34, 2076.   | 1.0 | 6         |
| 88 | Influence of the undoped spacer layer thickness on the DC characteristics of n-type GaAs/AlAs MESFETs. Semiconductor Science and Technology, 1998, 13, 318-321.     | 2.0 | 2         |
| 89 | In-situ monitoring of the selective etching of antimonides in GaSb/AlSb/InAs heterostructures using Raman spectroscopy. , 1997, , .                                 |     | 1         |
| 90 | Si:SiGe quantum wells grown on (118) substrates: Surface morphology and transport properties. Applied Physics Letters, 1997, 70, 1278-1280.                         | 3.3 | 12        |

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|-----|--|-----|-----------|
| 91  | Evidence for Inter-Miniband Scattering Due to Electron Heating in Si:SiGe Quantum Wells Grown on Tilted Substrates. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 204, 227-229. | 1.5 | 2         |
| 92  | High-frequency capacitance of bipolar resonant tunneling diodes. <i>Journal of Applied Physics</i> , 1996, 79, 905.  | 2.5 | 2         |
| 93  | Optical media with an imaginary third-order nonlinearity analyzed by Hamiltonian systems. <i>Physical Review A</i> , 1996, 53, 4400-4407.  | 2.5 | 1         |
| 94  | Controlled shift of the optical resonance of fully processed asymmetric Fabry - Perot modulator arrays. <i>Semiconductor Science and Technology</i> , 1996, 11, 582-586.                   | 2.0 | 2         |
| 95  | In-plane dispersion relations of InAs/AlSb/GaSb/AlSb/InAs interband resonant-tunneling diodes. <i>Physical Review B</i> , 1995, 52, 14025-14034.   | 3.2 | 14        |
| 96  | Experimental drain current drop-back in GaAs MESFETs. <i>Electronics Letters</i> , 1995, 31, 2042-2044.  | 1.0 | 1         |
| 97  | A GaAs pressure sensor based on resonant tunnelling diodes. <i>Journal of Micromechanics and Microengineering</i> , 1994, 4, 123-128.  | 2.6 | 33        |
| 98  | High-frequency capacitances in resonant interband tunneling diodes. <i>Applied Physics Letters</i> , 1994, 64, 2523-2525.  | 3.3 | 7         |
| 99  | Matrix formalism for the triple-band effective-mass equation. <i>Semiconductor Science and Technology</i> , 1993, 8, 1815-1821.  | 2.0 | 7         |
| 100 | Influence of resistances on characteristics of vertically integrated resonant tunnelling diodes. <i>Electronics Letters</i> , 1993, 29, 57-59.   | 1.0 | 1         |
| 101 | A proposal for a three-bit A/D converter using three resonant tunnelling diodes. <i>Semiconductor Science and Technology</i> , 1993, 8, 2106-2114.   | 2.0 | 2         |
| 102 | pn resonant tunneling light emitting transistor. <i>Applied Physics Letters</i> , 1992, 61, 1051-1053.   | 3.3 | 13        |
| 103 | Determination of the band line-up for strained InGaAs/AlAs heterojunctions using resonant tunnelling diodes. <i>Superlattices and Microstructures</i> , 1992, 11, 27-29.                   | 3.1 | 2         |
| 104 | Capacitances in double-barrier tunneling structures. <i>IEEE Transactions on Electron Devices</i> , 1991, 38, 2006-2012.   | 3.0 | 37        |
| 105 | Dispersive optical bistability in stratified structures. <i>Physical Review B</i> , 1991, 44, 8214-8225.   | 3.2 | 68        |
| 106 | Single stage amplifiers on a CMOS grade silicon substrate using a polymer interlayer dielectric with strained silicon MOSFETs. , 0, , .  |     | 0         |
| 107 | A Novel 3D Embedded Gate Field Effect Transistor: Device Concept and Modelling. , 0, , .   |     | 1         |
| 108 | Gated silicon nanowire for thermo-electric power generation and temperature sensing. <i>Semiconductor Science and Technology</i> , 0, , .  | 2.0 | 0         |