Pantelis Georgiou

List of Publications by Year in descending order

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250 papers

5,172 citations

34 h-index 138468 58 g-index

260 all docs $\begin{array}{c} 260 \\ \\ \text{docs citations} \end{array}$

times ranked

260

4138 citing authors

| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Personalized Blood Glucose Prediction for Type 1 Diabetes Using Evidential Deep Learning and Meta-Learning. IEEE Transactions on Biomedical Engineering, 2023, 70, 193-204. | 4.2 | 19 |
| 2 | A Multitask Learning Approach to Personalized Blood Glucose Prediction. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 436-445. | 6.3 | 19 |
| 3 | A Deep Learning Framework for Automatic Meal Detection and Estimation in Artificial Pancreas Systems. Sensors, 2022, 22, 466. | 3.8 | 15 |
| 4 | Applied machine learning for the risk-stratification and clinical decision support of hospitalised patients with dengue in Vietnam., 2022, 1, e0000005. | | 7 |
| 5 | Identifying Continuous Glucose Monitoring Data Using Machine Learning. Diabetes Technology and Therapeutics, 2022, 24, 403-408. | 4.4 | 5 |
| 6 | Ultraâ€ŧhin ISFETâ€based sensing systems. Electrochemical Science Advances, 2022, 2, . | 2.8 | 10 |
| 7 | The Diagnosis of Dengue in Patients Presenting With Acute Febrile Illness Using Supervised Machine Learning and Impact of Seasonality. Frontiers in Digital Health, 2022, 4, 849641. | 2.8 | 5 |
| 8 | Rapid Detection of Actinobacillus pleuropneumoniae From Clinical Samples Using Recombinase Polymerase Amplification. Frontiers in Veterinary Science, 2022, 9, 805382. | 2.2 | 3 |
| 9 | Single-channel digital LAMP multiplexing using amplification curve analysis. Sensors & Diagnostics, 2022, 1, 465-468. | 3.8 | 7 |
| 10 | Lab-on-chip assay of tumour markers and human papilloma virus for cervical cancer detection at the point-of-care. Scientific Reports, 2022, 12 , . | 3.3 | 11 |
| 11 | A LoC Ion Imaging Platform for Spatio-Temporal Characterisation of Ion-Selective Membranes. IEEE Transactions on Biomedical Circuits and Systems, 2022, 16, 545-556. | 4.0 | 2 |
| 12 | Enhancing self-management in type 1 diabetes with wearables and deep learning. Npj Digital Medicine, 2022, 5 , . | 10.9 | 23 |
| 13 | Deep Learning for Diabetes: A Systematic Review. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2744-2757. | 6.3 | 89 |
| 14 | A Real-world Evaluation of a Case-based Reasoning Algorithm to Support Antimicrobial Prescribing Decisions in Acute Care. Clinical Infectious Diseases, 2021, 72, 2103-2111. | 5.8 | 25 |
| 15 | Real-Time Forecasting of sEMG Features for Trunk Muscle Fatigue Using Machine Learning. IEEE Transactions on Biomedical Engineering, 2021, 68, 718-727. | 4.2 | 27 |
| 16 | Robust Determination of the Optimal Continuous Glucose Monitoring Length of Intervention to Evaluate Long-Term Glycemic Control. Diabetes Technology and Therapeutics, 2021, 23, 314-319. | 4.4 | 32 |
| 17 | Basal Glucose Control in Type 1 Diabetes Using Deep Reinforcement Learning: An <i>In Silico</i> Validation. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 1223-1232. | 6.3 | 51 |
| 18 | Reduced Drift of CMOS ISFET pH Sensors Using Graphene Sheets. IEEE Sensors Journal, 2021, 21, 14609-14618. | 4.7 | 9 |

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Supervised machine learning to support the diagnosis of bacterial infection in the context of COVID-19. JAC-Antimicrobial Resistance, 2021, 3, dlab002. | 2.1 | 9 |
| 20 | CMOS ISFET Arrays for Integrated Electrochemical Sensing and Imaging Applications: A Tutorial. IEEE Sensors Journal, 2021, 21, 22155-22169. | 4.7 | 13 |
| 21 | Concurrent Potentiometric and Amperometric Sensing With Shared Reference Electrodes. IEEE Sensors Journal, 2021, 21, 5720-5727. | 4.7 | 8 |
| 22 | Translation of a Host Blood RNA Signature Distinguishing Bacterial From Viral Infection Into a Platform Suitable for Development as a Point-of-Care Test. JAMA Pediatrics, 2021, 175, 417. | 6.2 | 32 |
| 23 | A USB 3.0 High Speed Digital Readout System with Dynamic Frame Rate Processing for ISFET Lab-on-Chip Platforms. , 2021, , . | | 2 |
| 24 | A Digital ISFET Sensor with In-Pixel ADC. , 2021, , . | | 5 |
| 25 | A 4-Channel sEMG ASIC with Real-Time Muscle Fatigue Feature Extraction. , 2021, , . | | 2 |
| 26 | SPACEMan: Wireless SoC for Concurrent Potentiometry and Amperometry. , 2021, , . | | 1 |
| 27 | A Multi-Sensing ISFET Array for Simultaneous In-Pixel Detection of Light, Temperature, Moisture and Ions., 2021,,. | | 2 |
| 28 | A Dual-Sensing CMOS Array for Combined Impedance-pH Detection of DNA with Integrated Electric Field Manipulation. , 2021, , . | | 3 |
| 29 | Blood Glucose Prediction in Type 1 Diabetes Using Deep Learning on the Edge. , 2021, , . | | 18 |
| 30 | A 1000fps Programmable Gain CMOS ISFET SoC with Array-Level Offset Compensation for Real Time Ion Imaging. , 2021, , . | | 3 |
| 31 | Detection of Multiple Breast Cancer <i>ESR1</i> Mutations on an ISFET Based Lab-on-Chip Platform. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 380-389. | 4.0 | 29 |
| 32 | Design of Low-Power Highly Accurate CMOS Potentiostat Using the g _m /I _D Methodology. , 2021, , . | | 4 |
| 33 | Optimizing antimicrobial use: challenges, advances and opportunities. Nature Reviews Microbiology, 2021, 19, 747-758. | 28.6 | 51 |
| 34 | An Ultra-High Frame Rate Ion Imaging Platform Using ISFET Arrays With Real-Time Compression. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 820-833. | 4.0 | 6 |
| 35 | Optimising antimicrobial use in humans – review of current evidence and an interdisciplinary consensus on key priorities for research. Lancet Regional Health - Europe, The, 2021, 7, 100161. | 5.6 | 46 |
| 36 | Discovery and validation of a three-gene signature to distinguish COVID-19 and other viral infections in emergency infectious disease presentations: a case-control and observational cohort study. Lancet Microbe, The, 2021, 2, e594-e603. | 7.3 | 17 |

| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 37 | Handheld Point-of-Care System for Rapid Detection of SARS-CoV-2 Extracted RNA in under 20 min. ACS Central Science, 2021, 7, 307-317. | 11.3 | 106 |
| 38 | Resistance Trend Estimation Using Regression Analysis to Enhance Antimicrobial Surveillance: A Multi-Centre Study in London 2009–2016. Antibiotics, 2021, 10, 1267. | 3.7 | 5 |
| 39 | Loop-Mediated Isothermal Amplification Assay for Detecting Tumor Markers and Human Papillomavirus: Accuracy and Supplemental Diagnostic Value to Endovaginal MRI in Cervical Cancer. Frontiers in Oncology, 2021, 11, 747614. | 2.8 | 3 |
| 40 | Personalized Dual-Hormone Control for Type 1 Diabetes Using Deep Reinforcement Learning. Studies in Computational Intelligence, 2021, , 45-53. | 0.9 | 6 |
| 41 | Coupling Machine Learning and High Throughput Multiplex Digital PCR Enables Accurate Detection of Carbapenem-Resistant Genes in Clinical Isolates. Frontiers in Molecular Biosciences, 2021, 8, 775299. | 3.5 | 16 |
| 42 | An In Silico Head-to-Head Comparison of the Do-It-Yourself Artificial Pancreas Loop and Bio-Inspired Artificial Pancreas Control Algorithms. Journal of Diabetes Science and Technology, 2021, , 193229682110600. | 2.2 | 3 |
| 43 | Multiple Ion-channel ISFET Neuron for Lab-on-chip applications. , 2021, , . | | 5 |
| 44 | Live Demonstration: Real-Time and High-Speed Ion Imaging Using CMOS ISFET Arrays. , 2021, , . | | 3 |
| 45 | Detection of MGMT methylation status using a Lab-on-Chip compatible isothermal amplification method., 2021, 2021, 7385-7389. | | 1 |
| 46 | A Modular Safety System for an Insulin Dose Recommender: A Feasibility Study. Journal of Diabetes Science and Technology, 2020, 14, 87-96. | 2.2 | 18 |
| 47 | Convolutional Recurrent Neural Networks for Glucose Prediction. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 603-613. | 6.3 | 156 |
| 48 | Predicting Quality of Overnight Glycaemic Control in Type 1 Diabetes Using Binary Classifiers. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1439-1446. | 6.3 | 29 |
| 49 | GluNet: A Deep Learning Framework for Accurate Glucose Forecasting. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 414-423. | 6.3 | 98 |
| 50 | In-Silico Automated Allele-Specific Primer Design for Loop-Mediated Isothermal Amplification. , 2020, , . | | 2 |
| 51 | DAPPER: A Low Power, Dual Amperometric and Potentiometric Single-Channel Front End. , 2020, , . | | 12 |
| 52 | Detection of Breast Cancer ESR1 p.E380Q Mutation on an ISFET Lab-on-Chip Platform., 2020,,. | | 9 |
| 53 | A Combined ISFET-Electric Field Actuation System for Enhanced Detection of DNA: A Proof-of-Concept. , 2020, , . | | 1 |
| 54 | ISFET-Based Sensing and Electric Field Actuation of DNA for On-Chip Detection: A Review. IEEE Sensors Journal, 2020, 20, 11044-11065. | 4.7 | 36 |

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Amplification Curve Analysis: Data-Driven Multiplexing Using Real-Time Digital PCR. Analytical Chemistry, 2020, 92, 13134-13143. | 6.5 | 35 |
| 56 | High-Level Multiplexing in Digital PCR with Intercalating Dyes by Coupling Real-Time Kinetics and Melting Curve Analysis. Analytical Chemistry, 2020, 92, 14181-14188. | 6.5 | 16 |
| 57 | Rapid Detection of Azole-Resistant Aspergillus fumigatus in Clinical and Environmental Isolates by Use of a Lab-on-a-Chip Diagnostic System. Journal of Clinical Microbiology, 2020, 58, . | 3.9 | 18 |
| 58 | An Insulin Bolus Advisor for Type 1 Diabetes Using Deep Reinforcement Learning. Sensors, 2020, 20, 5058. | 3.8 | 35 |
| 59 | A Cluster-Based Neuromorphic ISFET Architecture with Integrated Calibration. , 2020, , . | | 4 |
| 60 | An ISFET Array for Ion Multiplexing with an Integrated Sensor Learning Algorithm. , 2020, , . | | 5 |
| 61 | An Ion-to-Frequency ISFET Architecture for Ultra-Low Power Applications. , 2020, , . | | 2 |
| 62 | High-Throughput Digital Readout System for Real-Time Ion Imaging using CMOS ISFET Arrays. , 2020, , . | | 2 |
| 63 | A Multi-Sensing Pixel for Integrated Opto-Chemical Sensing with Temperature Compensation. , 2020, , . | | 2 |
| 64 | Closed-loop bioelectronic medicine for diabetes management. Bioelectronic Medicine, 2020, 6, 11. | 2.3 | 18 |
| 65 | Continuous physiological monitoring using wearable technology to inform individual management of infectious diseases, public health and outbreak responses. International Journal of Infectious Diseases, 2020, 96, 648-654. | 3.3 | 35 |
| 66 | Complementary Metal–Oxide–Semiconductor Potentiometric Field-Effect Transistor Array Platform Using Sensor Learning for Multi-ion Imaging. Analytical Chemistry, 2020, 92, 5276-5285. | 6.5 | 34 |
| 67 | A Dual-Sensing Thermo-Chemical ISFET Array for DNA-Based Diagnostics. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 477-489. | 4.0 | 27 |
| 68 | Calibrating for Trapped Charge in Large-Scale ISFET Arrays. IEEE Sensors Journal, 2020, 20, 5110-5118. | 4.7 | 9 |
| 69 | A novel hotspot specific isothermal amplification method for detection of the common PIK3CA p.H1047R breast cancer mutation. Scientific Reports, 2020, 10, 4553. | 3.3 | 35 |
| 70 | Assessment of Glucose Control Metrics by Discriminant Ratio. Diabetes Technology and Therapeutics, 2020, 22, 719-726. | 4.4 | 22 |
| 71 | A High-Performance Raspberry Pi-Based Interface for Ion Imaging Using ISFET Arrays. IEEE Sensors Journal, 2020, 20, 12837-12847. | 4.7 | 4 |
| 72 | A 128 $	ilde{A}$ — 128 Current-Mode Ultra-High Frame Rate ISFET Array With In-Pixel Calibration for Real-Time Ion Imaging. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 359-372. | 4.0 | 25 |

| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 73 | Dilated Recurrent Neural Networks for Glucose Forecasting in Type 1 Diabetes. Journal of Healthcare Informatics Research, 2020, 4, 308-324. | 7.6 | 58 |
| 74 | Rapid Detection of Mobilized Colistin Resistance using a Nucleic Acid Based Lab-on-a-Chip Diagnostic System. Scientific Reports, 2020, 10, 8448. | 3.3 | 33 |
| 75 | Leapfrogging laboratories: the promise and pitfalls of high-tech solutions for antimicrobial resistance surveillance in low-income settings. BMJ Global Health, 2020, 5, e003622. | 4.7 | 30 |
| 76 | A 0.55 V Bandgap Reference with a 59 ppm/ \hat{A}° C Temperature Coefficient. Journal of Circuits, Systems and Computers, 2019, 28, 1950120. | 1.5 | 22 |
| 77 | A High Value, Linear and Tunable CMOS Pseudo-Resistor for Biomedical Applications. Journal of Circuits, Systems and Computers, 2019, 28, 1950096. | 1.5 | 17 |
| 78 | Public acceptability of computer-controlled antibiotic management: An exploration of automated dosing and opportunities for implementation. Journal of Infection, 2019, 78, 75-86. | 3.3 | 10 |
| 79 | Live Demonstration: A Portable High-Speed Ion-Imaging Platform using a Raspberry Pi. , 2019, , . | | 3 |
| 80 | Current-Mode ISFET Array with Row-Parallel ADCs for Ultra-High Speed Ion Imaging. , 2019, , . | | 8 |
| 81 | Coordinated dual-hormone artificial pancreas with parallel control structure. Computers and Chemical Engineering, 2019, 128, 322-328. | 3.8 | 7 |
| 82 | Classification of Postprandial Glycemic Status with Application to Insulin Dosing in Type 1 Diabetesâ€"An In Silico Proof-of-Concept. Sensors, 2019, 19, 3168. | 3.8 | 16 |
| 83 | Long-Term Glucose Forecasting Using a Physiological Model and Deconvolution of the Continuous Glucose Monitoring Signal. Sensors, 2019, 19, 4338. | 3.8 | 22 |
| 84 | The Bio-inspired Artificial Pancreas for Type 1 Diabetes Control in the Home: System Architecture and Preliminary Results. Journal of Diabetes Science and Technology, 2019, 13, 1017-1025. | 2.2 | 9 |
| 85 | Ultrafast Large-Scale Chemical Sensing With CMOS ISFETs: A Level-Crossing Time-Domain Approach. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 1201-1213. | 4.0 | 19 |
| 86 | Mismatch Compensation in ISFET Arrays using a Parasitic Programmable Gate., 2019,,. | | 6 |
| 87 | A Programmable, Highly Linear and PVT-Insensitive ISFET Array for PoC Diagnosis. , 2019, , . | | 9 |
| 88 | A Novel Glucose Controller using Insulin Sensitivity Modulation for Management of Type 1 Diabetes. , 2019, , . | | 5 |
| 89 | Programmable Ion-Sensing Using Oscillator-Based ISFET Architectures. IEEE Sensors Journal, 2019, 19, 8563-8575. | 4.7 | 8 |
| 90 | Quantitative and rapid Plasmodium falciparum malaria diagnosis and artemisinin-resistance detection using a CMOS Lab-on-Chip platform. Biosensors and Bioelectronics, 2019, 145, 111678. | 10.1 | 74 |

| # | Article | IF | Citations |
|-----|--|------|-----------|
| 91 | Microneedle biosensors for real-time, minimally invasive drug monitoring of phenoxymethylpenicillin: a first-in-human evaluation in healthy volunteers. The Lancet Digital Health, 2019, 1, e335-e343. | 12.3 | 96 |
| 92 | Modeling the effect of the cephalic phase of insulin secretion on glucose metabolism. Medical and Biological Engineering and Computing, 2019, 57, 1173-1186. | 2.8 | 8 |
| 93 | 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 |
| 94 | A $32\tilde{A}-32$ ISFET Array with In-Pixel Digitisation and Column-Wise TDC for Ultra-Fast Chemical Sensing. , 2019, , . | | 3 |
| 95 | A Neuron-Based ISFET Array Architecture with Spatial Sensor Compensation., 2019,,. | | 5 |
| 96 | Framework for DNA Quantification and Outlier Detection Using Multidimensional Standard Curves. Analytical Chemistry, 2019, 91, 7426-7434. | 6.5 | 21 |
| 97 | Artificial intelligence can improve decision-making in infection management. Nature Human Behaviour, 2019, 3, 543-545. | 12.0 | 41 |
| 98 | Real-Time Forecasting and Classification of Trunk Muscle Fatigue Using Surface Electromyography. , 2019, , . | | 4 |
| 99 | ISFET Arrays for Lab-on-Chip Technology: A Review. , 2019, , . | | 13 |
| 100 | Live Demonstration : A Portable Multi-Ion Platform with Integrated Microfluidics. , 2019, , . | | 0 |
| 101 | A Time-Domain Current-Mode MAC Engine for Analogue Neural Networks in Flexible Electronics. , 2019, | | 8 |
| 102 | Live Demonstration: A Portable ISFET Platform for PoC Diagnosis Powered by Solar Energy., 2019,,. | | 1 |
| 103 | A Data-Driven Detection System for Predicting Stress Levels from Autonomic Signals. , 2019, , . | | 1 |
| 104 | Rapid detection of Klebsiella pneumoniae using an auto-calibrated ISFET-array Lab-on-Chip platform. , 2019, , . | | 2 |
| 105 | Simultaneous Single-Channel Multiplexing and Quantification of Carbapenem-Resistant Genes Using Multidimensional Standard Curves. Analytical Chemistry, 2019, 91, 2013-2020. | 6.5 | 19 |
| 106 | Rapid and Sensitive Detection of Azole-Resistant Aspergillus fumigatus by Tandem Repeat Loop-Mediated Isothermal Amplification. Journal of Molecular Diagnostics, 2019, 21, 286-295. | 2.8 | 20 |
| 107 | ISFET Arrays in CMOS: A Head-to-Head Comparison Between Voltage and Current Mode. IEEE Sensors Journal, 2019, 19, 1224-1238. | 4.7 | 30 |
| 108 | Connectivity of rapid-testing diagnostics and surveillance of infectious diseases. Bulletin of the World Health Organization, 2019, 97, 242-244. | 3.3 | 16 |

| # | Article | lF | Citations |
|-----|--|-----|-----------|
| 109 | Automatic Adaptation of Basal Insulin Using Sensor-Augmented Pump Therapy. Journal of Diabetes Science and Technology, 2018, 12, 282-294. | 2.2 | 18 |
| 110 | Exploring the Use of C-Reactive Protein to Estimate the Pharmacodynamics of Vancomycin. Therapeutic Drug Monitoring, 2018, 40, 315-321. | 2.0 | 11 |
| 111 | Association between spectral characteristics of paraspinal muscles and functional disability in patients with low back pain: a cohort study. BMJ Open, 2018, 8, e017091. | 1.9 | 6 |
| 112 | Performance improvement of commercial ISFET sensors using reactive ion etching. Microelectronic Engineering, 2018, 192, 61-65. | 2.4 | 7 |
| 113 | A Scalable ISFET Sensing and Memory Array With Sensor Auto-Calibration for On-Chip Real-Time DNA Detection. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 390-401. | 4.0 | 101 |
| 114 | Study of Electrochemical Impedance of a Continuous Glucose Monitoring Sensor and its Correlation With Sensor Performance. , 2018, 2, 1-4. | | 19 |
| 115 | Development of a patient-centred intervention to improve knowledge and understanding of antibiotic therapy in secondary care. Antimicrobial Resistance and Infection Control, 2018, 7, 43. | 4.1 | 16 |
| 116 | Vital Sign Monitoring Through the Back Using an UWB Impulse Radar With Body Coupled Antennas. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 292-302. | 4.0 | 90 |
| 117 | A pilot study in humans of microneedle sensor arrays for continuous glucose monitoring. Analytical Methods, 2018, 10, 2088-2095. | 2.7 | 89 |
| 118 | Closed-Loop Control for Precision Antimicrobial Delivery: An <italic>In Silico</italic> Proof-of-Concept. IEEE Transactions on Biomedical Engineering, 2018, 65, 2231-2236. | 4.2 | 9 |
| 119 | Microelectronics for Muscle Fatigue Monitoring Through Surface EMG. , 2018, , 133-162. | | 1 |
| 120 | Trapped charge cancellation for CMOS ISFET sensors via Direct Tunnelling. , 2018, , . | | 5 |
| 121 | Thermally Controlled Lab-on-PCB for Biomedical Applications. , 2018, , . | | 2 |
| 122 | An Asynchronous Auto-biasing Circuit for Wearable Electrochemical Sensors. , 2018, , . | | 1 |
| 123 | A fully-digital ISFET front-end with In-Pixel ΣΔ Modulation. , 2018, , . | | 0 |
| 124 | Adapting ISFETs for Epigenetics: An Overview. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1186-1201. | 4.0 | 19 |
| 125 | Allele-Specific Isothermal Amplification Method Using Unmodified Self-Stabilizing Competitive Primers. Analytical Chemistry, 2018, 90, 11972-11980. | 6.5 | 22 |
| 126 | Guest Editorial Special Issue on Selected Papers From the IEEE Sensors 2017 Conference. IEEE Sensors Journal, 2018, 18, 7764-7764. | 4.7 | 0 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 127 | Review of the role of the nervous system in glucose homoeostasis and future perspectives towards the management of diabetes. Bioelectronic Medicine, 2018, 4, 9. | 2.3 | 47 |
| 128 | An ISFET Pixel with Integrated Trapped Charge Compensation using Temperature Feedback. , 2018, , . | | 5 |
| 129 | A Portable Low-Power Platform for Ambulatory Closed Loop Control of Blood Glucose in Type 1 Diabetes. , $2018,$, $.$ | | 4 |
| 130 | A 12.8 k Current-Mode Velocity-Saturation ISFET Array for On-Chip Real-Time DNA Detection. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1202-1214. | 4.0 | 51 |
| 131 | A 96-channel ASIC for sEMG Fatigue Monitoring with Compressed Sensing for Data Reduction. , 2018, , . | | 3 |
| 132 | Improving Dengue Diagnostics and Management Through Innovative Technology. Current Infectious Disease Reports, 2018, 20, 25. | 3.0 | 20 |
| 133 | A CMOS Bio-Chip combining pH Sensing, Temperature Regulation and Electric Field Generation for DNA Detection and Manipulation. , 2018, , . | | 10 |
| 134 | Live Demonstration: A Mobile Diagnostic System for Rapid Detection and Tracking of Infectious Diseases. , 2018, , . | | 12 |
| 135 | A 128×128 Current-Mode Ultra-High Frame Rate ISFET Array for Ion Imaging. , 2018, , . | | 17 |
| 136 | Case-Based Reasoning for Insulin Bolus Advice. Journal of Diabetes Science and Technology, 2017, 11, 37-42. | 2.2 | 25 |
| 137 | A systematic review of clinical decision support systems for antimicrobial management: are we failing to investigate these interventions appropriately?. Clinical Microbiology and Infection, 2017, 23, 524-532. | 6.0 | 129 |
| 138 | Enhancing automatic closed-loop glucose control in type 1 diabetes with an adaptive meal bolus calculator $\hat{a} \in \mathbb{C}$ in silico evaluation under intra-day variability. Computer Methods and Programs in Biomedicine, 2017, 146, 125-131. | 4.7 | 51 |
| 139 | Vancomycin therapy in secondary care; investigating factors that impact therapeutic target attainment. Journal of Infection, 2017, 74, 320-324. | 3.3 | 1 |
| 140 | Occlusion dose monitoring in amblyopia therapy: status, insights, and future directions. Journal of AAPOS, 2017, 21, 402-406. | 0.3 | 21 |
| 141 | A novel ISFET sensor architecture using through-Silicon vias for DNA sequencing. , 2017, , . | | 2 |
| 142 | A Thermally Powered ISFET Array for On-Body pH Measurement. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1324-1334. | 4.0 | 40 |
| 143 | A Differential Electrochemical Readout ASIC With Heterogeneous Integration of Bio-Nano Sensors for Amperometric Sensing. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1148-1159. | 4.0 | 47 |
| 144 | A coordinated control strategy for insulin and glucagon delivery in type 1 diabetes. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1474-1482. | 1.6 | 24 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 145 | Towards a minimally invasive device for beta-lactam monitoring in humans. Electrochemistry Communications, 2017, 82, 1-5. | 4.7 | 36 |
| 146 | A 32 \$imes\$ 32 ISFET Chemical Sensing Array With Integrated Trapped Charge and Gain Compensation. IEEE Sensors Journal, 2017, 17, 5276-5284. | 4.7 | 47 |
| 147 | Temperature compensation for ISFETs using a floating gate current mirror. , 2017, , . | | 2 |
| 148 | Live demonstration: A batteryless CMOS ISFET array powered by body heat for real-time monitoring of bio-fluids. , 2017 , , . | | 0 |
| 149 | Improving the pH sensitivity of ISFET arrays with reactive ion etching. , 2017, , . | | 1 |
| 150 | CMOS body dust â€" Towards drinkable diagnostics. , 2017, , . | | 3 |
| 151 | Live demonstration: Real-time chemical imaging of ionic solutions using an ISFET array. , 2017, , . | | 1 |
| 152 | Live demonstration: A CMOS-based ISFET array for rapid diagnosis of the Zika virus. , 2017, , . | | 12 |
| 153 | Live demonstration: An NFC based batteryless CMOS ISFET array for real-time pH measurements of bio-fluids., 2017,,. | | 2 |
| 154 | Supervised learning for infection risk inference using pathology data. BMC Medical Informatics and Decision Making, 2017, 17, 168. | 3.0 | 31 |
| 155 | Data-driven Web-based Intelligent Decision Support System for Infection Management at Point-Of-Care: Case-Based Reasoning Benefits and Limitations. , 2017, , . | | 3 |
| 156 | An Advanced Insulin Bolus Calculator for Type 1 Diabetes. , 2017, , 241-260. | | 0 |
| 157 | Live demonstration: A portable multi-channel potentiostat for real-time amperometric measurement of multi-electrode sensor arrays. , 2016 , , . | | 2 |
| 158 | A Muscle Fibre Conduction Velocity Tracking ASIC for Local Fatigue Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 1119-1128. | 4.0 | 19 |
| 159 | ISFETs in CMOS and Emergent Trends in Instrumentation: A Review. IEEE Sensors Journal, 2016, 16, 6496-6514. | 4.7 | 184 |
| 160 | Clinical Safety and Feasibility of the Advanced Bolus Calculator for Type 1 Diabetes Based on Case-Based Reasoning: A 6-Week Nonrandomized Single-Arm Pilot Study. Diabetes Technology and Therapeutics, 2016, 18, 487-493. | 4.4 | 56 |
| 161 | An ISFET-based switched current DNA integrator. , 2016, , . | | 1 |
| 162 | A CMOS ISFET array for wearable thermoelectrically powered perspiration analysis. , 2016, , . | | 1 |

| # | Article | ΙF | Citations |
|-----|---|-----|-----------|
| 163 | A neuromorphic based median frequency tracker for muscle fatigue monitoring. , 2016, , . | | 3 |
| 164 | A robust ISFET array with in-pixel quantisation and automatic offset calibration. , 2016, , . | | 8 |
| 165 | Linear current-mode ISFET arrays. , 2016, , . | | 9 |
| 166 | A linear programmable-gate ISFET array operating in velocity saturation. , 2016, , . | | 6 |
| 167 | Scaling ISFET instrumentation with in-pixel quantisation to deep submicron technologies. , 2016, , . | | 6 |
| 168 | A weak inversion ISFET current mirror for differential bio-sensing. , 2016, , . | | 4 |
| 169 | Metabolic Control With the Bio-inspired Artificial Pancreas in Adults With Type 1 Diabetes. Journal of Diabetes Science and Technology, 2016, 10, 405-413. | 2.2 | 34 |
| 170 | A portable multi-channel potentiostat for real-time amperometric measurement of multi-electrode sensor arrays. , 2016, , . | | 4 |
| 171 | An Automatic Gain Control System for ISFET Array Compensation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 1511-1520. | 5.4 | 5 |
| 172 | Live demonstrator: Challenging the Bio-inspired Artificial Pancreas with a mixed-meal model library. , 2016, , . | | 0 |
| 173 | Bio-inspired pH sensing using ion sensitive field effect transistors. , 2016, , . | | 2 |
| 174 | An ion imaging ISFET array for Potassium and Sodium detection. , 2016, , . | | 21 |
| 175 | Live demonstration: Smartwatch implementation of an advanced insulin bolus calculator for diabetes. , $2016, , .$ | | 1 |
| 176 | Comparison of sEMG bit-stream modulators for cross-correlation based muscle fatigue estimation. , 2016, , . | | 2 |
| 177 | An integrated platform for differential electrochemical and ISFET sensing. , 2016, , . | | 5 |
| 178 | Patient engagement with infection management in secondary care: a qualitative investigation of current experiences. BMJ Open, 2016, 6, e011040. | 1.9 | 15 |
| 179 | Mapping the decision pathways of acute infection management in secondary care among UK medical physicians: a qualitative study. BMC Medicine, 2016, 14, 208. | 5.5 | 37 |
| 180 | Robust setâ€membership parameter estimation of the glucose minimal model. International Journal of Adaptive Control and Signal Processing, 2016, 30, 173-185. | 4.1 | 6 |

| # | Article | IF | Citations |
|-----|---|-----|-----------|
| 181 | A Sub- $$\{100,hbox \{ppm\}/\{^{circ}\}hbox \{C\}\}\}$ \$\$ 100 ppm / \hat{a}^{\sim} C Temperature-Compensated High-Frequency CMOS Relaxation Oscillator. Circuits, Systems, and Signal Processing, 2016, 35, 29-42. | 2.0 | О |
| 182 | Guest Editorial Biomedical and Health Informatics for Diabetes. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 3-3. | 6.3 | 4 |
| 183 | Glycemic Variability and Its Impact on Quality of Life in Adults With Type 1 Diabetes. Journal of Diabetes Science and Technology, 2016, 10, 60-66. | 2.2 | 19 |
| 184 | An Advanced Bolus Calculator for Type 1 Diabetes: System Architecture and Usability Results. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 11-17. | 6.3 | 45 |
| 185 | A Real-Time <italic>de novo</italic> DNA Sequencing Assembly Platform Based on an FPGA Implementation. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2016, 13, 291-300. | 3.0 | 2 |
| 186 | Live demonstration: Wearable device for remote EMG and muscle fatigue monitoring. , 2015, , . | | 8 |
| 187 | The "Wear and Measure―Approach: Linking Joint Stability Measurements from a Smart Clothing System to Optical Tracking. Journal of Sensors, 2015, 2015, 1-8. | 1.1 | 0 |
| 188 | Guest Editorialâ€"Special Issue on Selected Papers From IEEE BioCAS 2014. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 605-606. | 4.0 | 0 |
| 189 | A novel pH-to-time ISFET pixel architecture with offset compensation. , 2015, , . | | 15 |
| 190 | Impact of Technology Scaling on ISFET Performance for Genetic Sequencing. IEEE Sensors Journal, 2015, 15, 2219-2226. | 4.7 | 26 |
| 191 | Method for automatic adjustment of an insulin bolus calculator: In silico robustness evaluation under intra-day variability. Computer Methods and Programs in Biomedicine, 2015, 119, 1-8. | 4.7 | 33 |
| 192 | Smart Sensing System for Combined Activity Classification and Estimation of Knee Range of Motion. IEEE Sensors Journal, 2015, 15, 5535-5544. | 4.7 | 16 |
| 193 | Live demonstration: A handheld Bio-inspired Artificial pancreas for treatment of diabetes., 2014,,. | | 3 |
| 194 | Advanced Insulin Bolus Advisor based on Run-To-Run Control and Case-Based Reasoning. IEEE Journal of Biomedical and Health Informatics, 2014, 19, 1-1. | 6.3 | 56 |
| 195 | 3â€T ISFET frontâ€end utilising parasitic device capacitance. Electronics Letters, 2014, 50, 1507-1509. | 1.0 | 9 |
| 196 | Live demonstration: An advanced bolus calculator for diabetes management - A clinical and patient platform. , 2014, , . | | 2 |
| 197 | An analogue instantaneous median frequency tracker for EMG fatigue monitoring. , 2014, , . | | 9 |
| 198 | Bio-Inspired Glucose Control in Diabetes Based on an Analogue Implementation of a <formula formulatype="inline"><tex notation="TeX">\$eta \$</tex></formula> -Cell Model. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 186-195. | 4.0 | 18 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 199 | A study of pancreatic β-cell coupling for improved glucose sensing. , 2014, , . | | O |
| 200 | A Robust ISFET pH-Measuring Front-End for Chemical Reaction Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 177-185. | 4.0 | 69 |
| 201 | A SAR based calibration scheme for ISFET sensing arrays. , 2014, , . | | 2 |
| 202 | A new era of semiconductor genetics using ion-sensitive field-effect transistors: the gene-sensitive integrated cell. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130112. | 3.4 | 18 |
| 203 | Feasibility Study of a Bio-inspired Artificial Pancreas in Adults with Type 1 Diabetes. Diabetes Technology and Therapeutics, 2014, 16, 550-557. | 4.4 | 28 |
| 204 | REFET replication for ISFET-based SNP detection arrays. , 2013, , . | | 5 |
| 205 | An Attachable Clothing Sensor System for Measuring Knee Joint Angles. IEEE Sensors Journal, 2013, 13, 4090-4097. | 4.7 | 57 |
| 206 | A piecewise linear approximating ISFET readout., 2013,,. | | 2 |
| 207 | A direct-capacitive feedback ISFET interface for pH reaction monitoring. , 2013, , . | | 2 |
| 208 | Simultaneous DNA amplification and detection using a pH-sensing semiconductor system. Nature Methods, 2013, 10, 641-646. | 19.0 | 300 |
| 209 | A Composite Model of Glucagon-Glucose Dynamics for <i>In Silico</i> Testing of Bihormonal Glucose Controllers. Journal of Diabetes Science and Technology, 2013, 7, 941-951. | 2.2 | 45 |
| 210 | A study of the partitioned dynamic programming algorithm for genome comparison in FPGA. , 2013, , . | | 0 |
| 211 | An analogue implementation of the beta cell insulin release model. , 2013, , . | | 1 |
| 212 | Guest Editorial - ISCAS 2012 Special Issue. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 105-106. | 4.0 | 1 |
| 213 | A Bio-Inspired Glucose Controller Based on Pancreatic \hat{l}^2 -Cell Physiology. Journal of Diabetes Science and Technology, 2012, 6, 606-616. | 2.2 | 43 |
| 214 | Frequency analysis of wireless accelerometer and EMG sensors data: Towards discrimination of normal and asymmetric walking pattern. , 2012, , . | | 10 |
| 215 | A Simple Robust Method for Estimating the Glucose Rate of Appearance from Mixed Meals. Journal of Diabetes Science and Technology, 2012, 6, 153-162. | 2.2 | 25 |
| 216 | ISFET's threshold voltage control using bidirectional electron tunnelling. , 2012, , . | | 2 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 217 | A TDC based ISFET readout for large-scale chemical sensing systems. , 2012, , . | | 7 |
| 218 | Robust Fault Detection System for Insulin Pump Therapy Using Continuous Glucose Monitoring. Journal of Diabetes Science and Technology, 2012, 6, 1131-1141. | 2.2 | 48 |
| 219 | An ISFET design methodology incorporating CMOS passivation. , 2012, , . | | 4 |
| 220 | A CMOS architecture allowing parallel DNA comparison for on-chip assembly. , 2012, , . | | 2 |
| 221 | An ISFET based translinear sensor for DNA methylation detection. Sensors and Actuators B: Chemical, 2012, 161, 156-162. | 7.8 | 33 |
| 222 | A CMOS pancreatic islet of Langerhans for automatic glycemic regulation. , 2011, , . | | 1 |
| 223 | A silicon pancreatic beta cell based on the phantom bursting model. , 2011, , . | | 0 |
| 224 | Piet Bergveld - 40 years of ISFET technology: From neuronal sensing to DNA sequencing. Electronics Letters, 2011, 47, S7. | 1.0 | 32 |
| 225 | A CMOS-Based ISFET Chemical Imager With Auto-Calibration Capability. IEEE Sensors Journal, 2011, 11, 3253-3260. | 4.7 | 45 |
| 226 | An ISFET based chemical Gilbert Cell. , 2011, , . | | 4 |
| 227 | Bio-inspired semiconductors for early detection and therapy. , 2011, , . | | 2 |
| 228 | An Extended CMOS ISFET Model Incorporating the Physical Design Geometry and the Effects on Performance and Offset Variation. IEEE Transactions on Electron Devices, 2011, 58, 4414-4422. | 3.0 | 63 |
| 229 | VHDL implementation of the Biostator II glucose control algorithm for critical care. , 2011, , . | | 3 |
| 230 | Live demonstration: A CMOS-based lab-on-chip array for combined magnetic manipulation and opto-chemical sensing. , $2011, \ldots$ | | 4 |
| 231 | A robust microfluidic in vitro cell perifusion system. , 2011, 2011, 8412-5. | | 2 |
| 232 | A multichannel DNA SoC for rapid point-of-care gene detection. , 2010, , . | | 45 |
| 233 | A silicon pancreatic islet for the treatment of diabetes. , 2010, , . | | 5 |
| 234 | Exploiting CMOS Technology to Enhance the Performance of ISFET Sensors. IEEE Electron Device Letters, 2010, 31, 1053-1055. | 3.9 | 22 |

| # | Article | IF | Citations |
|-----|---|-----|-----------|
| 235 | PG-ISFET based DNA-logic for reaction monitoring. Electronics Letters, 2010, 46, 330. | 1.0 | 10 |
| 236 | A CMOS-based lab-on-chip array for the combined magnetic stimulation and opto-chemical sensing of neural tissue. , 2010, , . | | 8 |
| 237 | A Benchtop Closed-loop System Controlled by a Bio-Inspired Silicon Implementation of the Pancreatic \hat{l}^2 Cell. Journal of Diabetes Science and Technology, 2009, 3, 1419-1424. | 2.2 | 7 |
| 238 | ISFET characteristics in CMOS and their application to weak inversion operation. Sensors and Actuators B: Chemical, 2009, 143, 211-217. | 7.8 | 153 |
| 239 | An adaptive CMOS-based PG-ISFET for pH sensing. , 2009, , . | | 9 |
| 240 | An auto-offset-removal circuit for chemical sensing based on the PG-ISFET. , 2009, , . | | 5 |
| 241 | ISFET threshold voltage programming in CMOS using hot-electron injection. Electronics Letters, 2009, 45, 1112. | 1.0 | 14 |
| 242 | Towards ISFET based DNA logic for rapid nucleic acid detection. , 2009, , . | | 3 |
| 243 | CMOS-based programmable gate ISFET. Electronics Letters, 2008, 44, 1289. | 1.0 | 56 |
| 244 | An adaptive ISFET chemical imager chip. , 2008, , . | | 22 |
| 245 | Chemical bionics - a novel design approach using Ion Sensitive Field Effect Transistors. , 2008, , . | | 5 |
| 246 | A bio-inspired closed-loop insulin delivery based on the silicon pancreatic beta-cell. , 2008, , . | | 3 |
| 247 | A Silicon Pancreatic Beta Cell for Diabetes. IEEE Transactions on Biomedical Circuits and Systems, 2007, 1, 39-49. | 4.0 | 36 |
| 248 | Spiking Chemical Sensor (SCS): A new platform for neuro-chemical sensing. , 2007, , . | | 3 |
| 249 | A novel voltage-clamped CMOS ISFET sensor interface. , 2007, , . | | 28 |
| 250 | Towards a Bionic Neural Link for Implantable Prosthetics. , 2007, , . | | O |