

# Paul Charette

## List of Publications by Year in descending order

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71  
papers

1,318  
citations

331259

21  
h-index

360668

35  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1700  
citing authors

#	ARTICLE	IF	CITATIONS
1	SiN half-etch horizontal slot waveguides for integrated photonics: numerical modeling, fabrication, and characterization of passive components. <i>Optics Express</i> , 2022, 30, 4202.	1.7	1
2	The ultra high sensitivity blood counter: a compact, MRI-compatible, radioactivity counter for pharmacokinetic studies in $\mu\text{L}$ volumes. <i>Biomedical Physics and Engineering Express</i> , 2022, , .	0.6	0
3	Love Wave Sensor with High Penetration Depth for Potential Application in Cell Monitoring. <i>Biosensors</i> , 2022, 12, 61.	2.3	4
4	Development of a Love-Wave Biosensor Based on an Analytical Model. <i>Chemosensors</i> , 2022, 10, 81.	1.8	2
5	Surface micropatterning for the formation of an in vitro functional endothelial model for cell-based biosensors. <i>Biosensors and Bioelectronics</i> , 2022, , 114481.	5.3	0
6	Numerical characterization of Love waves dispersion in viscoelastic guiding-layer under viscous fluid. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	4
7	Improved two-temperature modeling of ultrafast thermal and optical phenomena in continuous and nanostructured metal films. <i>Physical Review B</i> , 2020, 102, .	1.1	20
8	Hydrophilic Mechano-Bactericidal Nanopillars Require External Forces to Rapidly Kill Bacteria. <i>Nano Letters</i> , 2020, 20, 5720-5727.	4.5	57
9	Early detection of bacteria using SPR imaging and event counting: experiments with <i>Listeria monocytogenes</i> and <i>Listeria innocua</i> . <i>RSC Advances</i> , 2019, 9, 15554-15560.	1.7	30
10	Nanoplasmonics-enhanced label-free imaging of endothelial cell monolayer integrity. <i>Biosensors and Bioelectronics</i> , 2019, 141, 111478.	5.3	5
11	Dielectrophoretic cell trapping for improved surface plasmon resonance imaging sensing. <i>Electrophoresis</i> , 2019, 40, 1417-1425.	1.3	6
12	Ring resonator designed for biosensing applications manufactured on 300 mm SOI in an industrial environment. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SBBE02.	0.8	2
13	Performance improvement of plasmonic sensors using a combination of AC electrokinetic effects for (bio)target capture. <i>Electrophoresis</i> , 2019, 40, 1426-1435.	1.3	5
14	Resolution optimized prism-based SPR imaging for the study of individual bacteria interactions with surfaces. , 2019, , .		0
15	Label-free visualization and quantification of single cell signaling activity using metal-clad waveguide (MCWG)-based microscopy. <i>Biosensors and Bioelectronics</i> , 2018, 100, 429-436.	5.3	10
16	Monitoring individual cell-signaling activity using combined metal-clad waveguide and surface-enhanced fluorescence imaging. <i>Analyst</i> , The, 2018, 143, 5559-5567.	1.7	6
17	Spatial resolution versus contrast trade-off enhancement in high-resolution surface plasmon resonance imaging (SPRI) by metal surface nanostructure design. <i>Optics Express</i> , 2018, 26, 10616.	1.7	10
18	Towards miniaturized pH sensor based on carbon nanotubes assembled by DEP on titanium electrodes?. , 2018, , .		2

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19	In situ characterization of biofluid using an optimized hybrid acousto-optic sensor array on a microfluidic cell. , 2017, , .		1
20	Metal clad waveguide (MCWG) based imaging using a high numerical aperture microscope objective. Optics Express, 2017, 25, 1666.	1.7	9
21	Evanescent Field Coupler Optimized for High Refractive Index Differences (ECHRID)â€”A Platform for a SOI Photonics Optical Interface. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 434-442.	1.9	0
22	Real-Time Microfluidic Blood-Counting System for PET and SPECT Preclinical Pharmacokinetic Studies. Journal of Nuclear Medicine, 2016, 57, 1460-1466.	2.8	18
23	A CMOS Buried Quad p-n Junction Photodetector Model. IEEE Sensors Journal, 2016, 16, 1611-1620.	2.4	14
24	Enhancements to surface plasmon resonance imaging for biosensing. , 2015, , .		0
25	Critical process temperatures for resistive InGaAsP/InP heterostructures heavily implanted by Fe or Ga ions. Nuclear Instruments & Methods in Physics Research B, 2015, 359, 99-106.	0.6	4
26	Implementation Study of Single Photon Avalanche Diodes (SPAD) in $\mu\text{m}$ HV CMOS Technology. IEEE Transactions on Nuclear Science, 2015, 62, 710-718.	1.2	33
27	Improved resolution in SPR and MCWG microscopy by combining images acquired with distinct mode propagation directions. Optics Letters, 2015, 40, 1165.	1.7	13
28	Hybrid metallic ion-exchanged waveguides for SPR biological sensing. , 2015, , .		3
29	CMOS buried multi-junction (BMJ) detector for bio-chemical analysis. , 2015, , .		0
30	Surface Plasmon Resonance to Study Cell Signaling and GPCR Functional Selectivity in Live Cells. Methods in Pharmacology and Toxicology, 2015, , 183-195.	0.1	0
31	Buried Quad Junction Photodetector Signal Processing for Multi-Label Fluorescence Detection. Sensor Letters, 2015, 13, 430-434.	0.4	0
32	BQJ Photodetector Signal Processing. Key Engineering Materials, 2014, 605, 91-94.	0.4	1
33	Cell detachment and label-free cell sorting using modulated surface acoustic waves (SAWs) in droplet-based microfluidics. Lab on A Chip, 2014, 14, 3556.	3.1	35
34	CMOS BQJ detector chip with integrated charge-amplifiers for fluorescence measurements. Sensors and Actuators B: Chemical, 2014, 190, 288-294.	4.0	9
35	Identification of the molecular mechanisms in cellular processes that elicit a surface plasmon resonance (SPR) response using simultaneous surface plasmon-enhanced fluorescence (SPEF) microscopy. Biosensors and Bioelectronics, 2013, 50, 125-131.	5.3	22
36	Removal of living cells from biosensing surfaces in droplet-based microfluidics using surface acoustic waves. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2

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37	Towards semi-insulating InGaAsP/InP layers by post-growth processing using Fe ion implantation and rapid thermal annealing. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 165106.	1.3	3
38	Plasma-Enhanced Chemical Vapor Deposition of Si-Rich Silicon Nitride Films Optimized for Waveguide-Based Sensing Applications in the Visible Range. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 110205.	0.8	1
39	CMOS buried Quad p-n junction photodetector for multi-wavelength analysis. <i>Optics Express</i> , 2012, 20, 2053.	1.7	31
40	MICRO-FABRICATION PROCESS FOR AN INTEGRATED BIOSENSOR COMPOSED OF A SPR TRANSDUCER COUPLED TO A MICROCALORIMETRIC SENSOR. <i>International Journal of Nanoscience</i> , 2012, 11, 1240010.	0.4	1
41	Long range surface plasmon resonance for increased sensitivity in living cell biosensing through greater probing depth. <i>Sensors and Actuators B: Chemical</i> , 2012, 174, 94-101.	4.0	115
42	Passivation of KMPR microfluidic channels with bovine serum albumin (BSA) for improved hemocompatibility characterized with metal-clad waveguides. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 447-454.	4.0	26
43	Blood compatible microfluidic system for pharmacokinetic studies in small animals. <i>Lab on A Chip</i> , 2012, 12, 4683.	3.1	13
44	Plasma-Enhanced Chemical Vapor Deposition of Si-Rich Silicon Nitride Films Optimized for Waveguide-Based Sensing Applications in the Visible Range. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 110205.	0.8	2
45	Fabrication of high resistivity cold-implanted InGaAsP photoconductors for efficient pulsed terahertz devices. <i>Optical Materials Express</i> , 2011, 1, 1165.	1.6	25
46	High efficiency microfluidic beta detector for pharmacokinetic studies in small animals. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 652, 735-738.	0.7	8
47	Accelerated surface plasmon resonance biosensing by surface acoustic waves microstreaming. , 2011, , .		0
48	Accelerated binding kinetics by surface acoustic waves (SAW) micromixing in surface plasmon resonance (SPR) system for biodetection. , 2011, , .		2
49	In vivo intravital endoscopic confocal fluorescence microscopy of normal and acutely injured rat lungs. <i>Laboratory Investigation</i> , 2010, 90, 824-834.	1.7	23
50	Strain-induced effects in colloidal quantum dots: lifetime measurements and blinking statistics. <i>Nanotechnology</i> , 2010, 21, 134024.	1.3	24
51	Integrated active mixing and biosensing using surface acoustic waves (SAW) and surface plasmon resonance (SPR) on a common substrate. <i>Lab on A Chip</i> , 2010, 10, 111-115.	3.1	69
52	Modelling and experimental validation of thin-film effects in thermopile-based microscale calorimeters. <i>Sensors and Actuators A: Physical</i> , 2009, 150, 199-206.	2.0	6
53	Biosensing based on surface plasmon resonance and living cells. <i>Biosensors and Bioelectronics</i> , 2009, 24, 1667-1673.	5.3	123
54	An integrated hybrid interference and absorption filter for fluorescence detection in lab-on-a-chip devices. <i>Lab on A Chip</i> , 2009, 9, 1371.	3.1	62

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55	Monitoring of native chemical ligation by surface plasmon resonance. <i>Advances in Experimental Medicine and Biology</i> , 2009, 611, 427-429.	0.8	0
56	Surface Plasmon Resonance Monitoring of Cell Monolayer Integrity: Implication of Signaling Pathways Involved in Actin-Driven Morphological Remodeling. <i>Cellular and Molecular Bioengineering</i> , 2008, 1, 229-239.	1.0	32
57	Monitoring of native chemical ligation on solid substrate by surface plasmon resonance. <i>Biopolymers</i> , 2008, 90, 415-420.	1.2	6
58	Simultaneous strain and coherent imaging using coupled photorefractive holography and shearography through scattering media. <i>Journal of Biomedical Optics</i> , 2008, 13, 044010.	1.4	1
59	Simultaneous coherent imaging and strain measurement using coupled photorefractive holography and shearography. <i>Optics Letters</i> , 2008, 33, 797.	1.7	7
60	Fabrication of silicon nitride waveguides for visible-light using PECVD: a study of the effect of plasma frequency on optical properties. <i>Optics Express</i> , 2008, 16, 13509.	1.7	123
61	Numerical method for high accuracy index of refraction estimation for spectro-angular surface plasmon resonance systems. <i>Optics Express</i> , 2008, 16, 19493.	1.7	23
62	Strain measurement in biaxially loaded inhomogeneous, anisotropic elastic membranes. <i>Biomechanics and Modeling in Mechanobiology</i> , 2002, 1, 197-210.	1.4	34
63	Instrumentation and procedures for estimating the constitutive parameters of inhomogeneous elastic membranes. <i>Biomechanics and Modeling in Mechanobiology</i> , 2002, 1, 211-218.	1.4	15
64	Large deformation mechanical testing of biological membranes using speckle interferometry in transmission I: Experimental apparatus. <i>Applied Optics</i> , 1997, 36, 2238.	2.1	7
65	Large deformation mechanical testing of biological membranes using speckle interferometry in transmission II: Finite element modeling. <i>Applied Optics</i> , 1997, 36, 2246.	2.1	6
66	Robust phase-unwrapping method for phase images with high noise content. <i>Applied Optics</i> , 1996, 35, 3506.	2.1	27
67	Polarization-insensitive scanned fiber confocal microscope. <i>Optical Engineering</i> , 1996, 35, 3084.	0.5	5
68	A Teleoperated Microsurgical Robot and Associated Virtual Environment for Eye Surgery. <i>Presence: Teleoperators and Virtual Environments</i> , 1993, 2, 265-280.	0.3	128
69	Environmental isolation platform for microrobot system development. <i>Review of Scientific Instruments</i> , 1992, 63, 3492-3498.	0.6	10
70	A complete high performance heterodyne interferometer displacement transducer for microactuator control. <i>Review of Scientific Instruments</i> , 1992, 63, 241-248.	0.6	30
71	Opto-Electrical Modeling of CMOS Buried Quad Junction Photodetector. <i>Key Engineering Materials</i> , 0, 605, 470-473.	0.4	2