

# Brian T Cunningham

## List of Publications by Year in descending order

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176  
papers

8,465  
citations

38720

50  
h-index

54882

84  
g-index

179  
all docs

179  
docs citations

179  
times ranked

8085  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced fluorescence emission from quantum dots on a photonic crystal surface. <i>Nature Nanotechnology</i> , 2007, 2, 515-520.	15.6	430
2	Photonic crystals: emerging biosensors and their promise for point-of-care applications. <i>Chemical Society Reviews</i> , 2017, 46, 366-388.	18.7	330
3	Rapid isothermal amplification and portable detection system for SARS-CoV-2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22727-22735.	3.3	314
4	Silicon Micromachining to Tissue Engineer Branched Vascular Channels for Liver Fabrication. <i>Tissue Engineering</i> , 2000, 6, 105-117.	4.9	307
5	Colorimetric resonant reflection as a direct biochemical assay technique. <i>Sensors and Actuators B: Chemical</i> , 2002, 81, 316-328.	4.0	291
6	Label-free biodetection using a smartphone. <i>Lab on A Chip</i> , 2013, 13, 2124.	3.1	281
7	Smartphone Fluorescence Spectroscopy. <i>Analytical Chemistry</i> , 2014, 86, 8805-8813.	3.2	238
8	A plastic colorimetric resonant optical biosensor for multiparallel detection of label-free biochemical interactions. <i>Sensors and Actuators B: Chemical</i> , 2002, 85, 219-226.	4.0	196
9	Nanostructured Optical Photonic Crystal Biosensor for HIV Viral Load Measurement. <i>Scientific Reports</i> , 2014, 4, 4116.	1.6	144
10	Plasmonic Nanogap-Enhanced Raman Scattering Using a Resonant Nanodome Array. <i>Small</i> , 2012, 8, 2878-2885.	5.2	126
11	Smartphone instrument for portable enzyme-linked immunosorbent assays. <i>Biomedical Optics Express</i> , 2014, 5, 3792.	1.5	116
12	Photonic crystal optical biosensor incorporating structured low-index porous dielectric. <i>Sensors and Actuators B: Chemical</i> , 2006, 120, 187-193.	4.0	110
13	Heteroepitaxial growth of Ge on (100) Si by ultrahigh vacuum, chemical vapor deposition. <i>Applied Physics Letters</i> , 1991, 59, 3574-3576.	1.5	109
14	Smartphone-based multiplex 30-minute nucleic acid test of live virus from nasal swab extract. <i>Lab on A Chip</i> , 2020, 20, 1621-1627.	3.1	108
15	Colorimetric Plasmon Resonance Imaging Using Nano Lycurgus Cup Arrays. <i>Advanced Optical Materials</i> , 2013, 1, 68-76.	3.6	105
16	Label-free cell-based assays using photonic crystal optical biosensors. <i>Analyst, The</i> , 2011, 136, 1090.	1.7	98
17	Application of Photonic Crystal Enhanced Fluorescence to Cancer Biomarker Microarrays. <i>Analytical Chemistry</i> , 2011, 83, 1425-1430.	3.2	97
18	High sensitivity photonic crystal biosensor incorporating nanorod structures for enhanced surface area. <i>Sensors and Actuators B: Chemical</i> , 2008, 131, 279-284.	4.0	96

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19	Leaky-mode assisted fluorescence extraction: application to fluorescence enhancement biosensors. <i>Optics Express</i> , 2008, 16, 21626.	1.7	96
20	Surface-enhanced Raman nanodomains. <i>Nanotechnology</i> , 2010, 21, 415301.	1.3	94
21	A label-free photonic crystal biosensor imaging method for detection of cancer cell cytotoxicity and proliferation. <i>Apoptosis: an International Journal on Programmed Cell Death</i> , 2007, 12, 1061-1068.	2.2	93
22	A label-free optical technique for detecting small molecule interactions. <i>Biosensors and Bioelectronics</i> , 2002, 17, 827-834.	5.3	87
23	A new method for label-free imaging of biomolecular interactions. <i>Sensors and Actuators B: Chemical</i> , 2004, 99, 6-13.	4.0	87
24	A 96-well microplate incorporating a replica molded microfluidic network integrated with photonic crystal biosensors for high throughput kinetic biomolecular interaction analysis. <i>Lab on A Chip</i> , 2007, 7, 550.	3.1	86
25	A Sensitivity Model for Predicting Photonic Crystal Biosensor Performance. <i>IEEE Sensors Journal</i> , 2008, 8, 274-280.	2.4	86
26	Application of Photonic Crystal Enhanced Fluorescence to a Cytokine Immunoassay. <i>Analytical Chemistry</i> , 2008, 80, 9013-9020.	3.2	85
27	Microplate-based, label-free detection of biomolecular interactions: applications in proteomics. <i>Expert Review of Proteomics</i> , 2006, 3, 271-281.	1.3	83
28	Photonic crystal enhanced microscopy for imaging of live cell adhesion. <i>Analyst, The</i> , 2013, 138, 5886.	1.7	82
29	Single nanoparticle detection using photonic crystal enhanced microscopy. <i>Analyst, The</i> , 2014, 139, 1007-1015.	1.7	80
30	Smartphone-Imaged HIV-1 Reverse-Transcription Loop-Mediated Isothermal Amplification (RT-LAMP) on a Chip from Whole Blood. <i>Engineering</i> , 2015, 1, 324-335.	3.2	80
31	Enhancing the surface sensitivity of colorimetric resonant optical biosensors. <i>Sensors and Actuators B: Chemical</i> , 2002, 87, 365-370.	4.0	78
32	Microfluidic chip for combinatorial mixing and screening of assays. <i>Lab on A Chip</i> , 2009, 9, 1676.	3.1	74
33	Rapid Specific and Label-Free Detection of Porcine Rotavirus Using Photonic Crystal Biosensors. <i>IEEE Sensors Journal</i> , 2009, 9, 470-477.	2.4	72
34	Single-step fabrication and characterization of photonic crystal biosensors with polymer microfluidic channels. <i>Lab on A Chip</i> , 2006, 6, 1373.	3.1	71
35	Photonic crystal enhanced fluorescence using a quartz substrate to reduce limits of detection. <i>Optics Express</i> , 2010, 18, 24793.	1.7	69
36	Mobile Platform for Multiplexed Detection and Differentiation of Disease-Specific Nucleic Acid Sequences, Using Microfluidic Loop-Mediated Isothermal Amplification and Smartphone Detection. <i>Analytical Chemistry</i> , 2017, 89, 11219-11226.	3.2	68

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37	Optimally designed narrowband guided-mode resonance reflectance filters for mid-infrared spectroscopy. <i>Optics Express</i> , 2011, 19, 24182.	1.7	67
38	Recent Advances in Biosensing With Photonic Crystal Surfaces: A Review. <i>IEEE Sensors Journal</i> , 2016, 16, 3349-3366.	2.4	67
39	A General Method for Discovering Inhibitors of Protein-DNA Interactions Using Photonic Crystal Biosensors. <i>ACS Chemical Biology</i> , 2008, 3, 437-448.	1.6	65
40	A detection instrument for enhanced-fluorescence and label-free imaging on photonic crystal surfaces. <i>Optics Express</i> , 2009, 17, 13222.	1.7	65
41	Spectroscopic Size and Thickness Metrics for Liquid-Exfoliated h-BN. <i>Chemistry of Materials</i> , 2018, 30, 1998-2005.	3.2	65
42	Nanoantenna-Microcavity Hybrids with Highly Cooperative Plasmonic-Photonic Coupling. <i>Nano Letters</i> , 2017, 17, 7569-7577.	4.5	64
43	Coupling discrete metal nanoparticles to photonic crystal surface resonant modes and application to Raman spectroscopy. <i>Optics Express</i> , 2010, 18, 4300.	1.7	60
44	Enhanced sandwich immunoassay using antibody-functionalized magnetic iron-oxide nanoparticles for extraction and detection of soluble transferrin receptor on a photonic crystal biosensor. <i>Biosensors and Bioelectronics</i> , 2015, 74, 815-822.	5.3	60
45	Sensitive detection of protein and miRNA cancer biomarkers using silicon-based photonic crystals and a resonance coupling laser scanning platform. <i>Lab on A Chip</i> , 2013, 13, 4053.	3.1	58
46	Point-of-care detection and real-time monitoring of intravenously delivered drugs via tubing with an integrated SERS sensor. <i>Nanoscale</i> , 2014, 6, 5162-5171.	2.8	58
47	Multimode smartphone biosensing: the transmission, reflection, and intensity spectral (TRI)-analyzer. <i>Lab on A Chip</i> , 2017, 17, 3246-3257.	3.1	58
48	A label-free biosensor-based cell attachment assay for characterization of cell surface molecules. <i>Sensors and Actuators B: Chemical</i> , 2006, 114, 559-564.	4.0	57
49	Narrowband Midinfrared Reflectance Filters Using Guided Mode Resonance. <i>Analytical Chemistry</i> , 2010, 82, 5697-5706.	3.2	54
50	Label-Free Biosensor Imaging on Photonic Crystal Surfaces. <i>Sensors</i> , 2015, 15, 21613-21635.	2.1	54
51	A photonic crystal biosensor assay for ferritin utilizing iron-oxide nanoparticles. <i>Biosensors and Bioelectronics</i> , 2014, 56, 320-327.	5.3	52
52	Characterization of drug authenticity using thin-layer chromatography imaging with a mobile phone. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 125, 85-93.	1.4	52
53	Enhanced Fluorescence on a Photonic Crystal Surface Incorporating Nanorod Structures. <i>Small</i> , 2008, 4, 2199-2203.	5.2	51
54	Photonic-crystal near-ultraviolet reflectance filters fabricated by nanoreplica molding. <i>Applied Physics Letters</i> , 2006, 88, 071110.	1.5	50

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55	Large-area submicron replica molding of porous low-k dielectric films and application to photonic crystal biosensor fabrication. <i>Microelectronic Engineering</i> , 2007, 84, 603-608.	1.1	50
56	Fabrication of a graded-wavelength guided-mode resonance filter photonic crystal. <i>Applied Physics Letters</i> , 2006, 89, 123113.	1.5	49
57	Improved Sensitivity of DNA Microarrays Using Photonic Crystal Enhanced Fluorescence. <i>Analytical Chemistry</i> , 2010, 82, 6854-6861.	3.2	49
58	Large-area organic distributed feedback laser fabricated by nanoreplica molding and horizontal dipping. <i>Optics Express</i> , 2010, 18, 12980.	1.7	48
59	Small Molecule Inhibition of the TNF Family Cytokine CD40 Ligand through a Subunit Fracture Mechanism. <i>ACS Chemical Biology</i> , 2011, 6, 636-647.	1.6	48
60	Digital-resolution detection of microRNA with single-base selectivity by photonic resonator absorption microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19362-19367.	3.3	48
61	Label-free imaging of cancer cells using photonic crystal biosensors and application to cytotoxicity screening of a natural compound library. <i>Sensors and Actuators B: Chemical</i> , 2008, 132, 418-425.	4.0	47
62	Distance dependence of fluorescence enhancement from photonic crystal surfaces. <i>Journal of Applied Physics</i> , 2008, 103, 083104.	1.1	44
63	Identifying Modulators of Protein-Protein Interactions Using Photonic Crystal Biosensors. <i>Journal of the American Chemical Society</i> , 2009, 131, 18202-18203.	6.6	44
64	Employing two distinct photonic crystal resonances to improve fluorescence enhancement. <i>Applied Physics Letters</i> , 2009, 95, 21111.	1.5	43
65	Single-step, wash-free digital immunoassay for rapid quantitative analysis of serological antibody against SARS-CoV-2 by photonic resonator absorption microscopy. <i>Talanta</i> , 2021, 225, 122004.	2.9	43
66	Enhanced live cell imaging via photonic crystal enhanced fluorescence microscopy. <i>Analyst</i> , The, 2014, 139, 5954-5963.	1.7	42
67	Optically tuned resonant optical reflectance filter. <i>Applied Physics Letters</i> , 2008, 92, 091115.	1.5	41
68	Distributed feedback laser biosensor incorporating a titanium dioxide nanorod surface. <i>Applied Physics Letters</i> , 2010, 96, 163702.	1.5	40
69	Sculpting narrowband Fano resonances inherent in the large-area mid-infrared photonic crystal microresonators for spectroscopic imaging. <i>Optics Express</i> , 2014, 22, 18142.	1.7	40
70	Vapor-Phase Deposition of Monofunctional Alkoxysilanes for Sub-Nanometer-Level Biointerfacing on Silicon Oxide Surfaces. <i>Advanced Functional Materials</i> , 2010, 20, 87-95.	7.8	39
71	Point-of-use detection of ascorbic acid using a spectrometric smartphone-based system. <i>Food Chemistry</i> , 2019, 272, 141-147.	4.2	39
72	Design, fabrication and vapor characterization of a microfabricated flexural plate resonator sensor and application to integrated sensor arrays. <i>Sensors and Actuators B: Chemical</i> , 2001, 73, 112-123.	4.0	38

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73	Biochemical sensor tubing for point-of-care monitoring of intravenous drugs and metabolites. Lab on A Chip, 2012, 12, 574-581.	3.1	38
74	Detection of proteins and intact microorganisms using microfabricated flexural plate silicon resonator arrays. Sensors and Actuators B: Chemical, 2003, 96, 565-575.	4.0	37
75	Comparison of label-free biosensing in microplate, microfluidic, and spot-based affinity capture assays. Analytical Biochemistry, 2010, 405, 1-10.	1.1	37
76	Nanostructured Surfaces and Detection Instrumentation for Photonic Crystal Enhanced Fluorescence. Sensors, 2013, 13, 5561-5584.	2.1	37
77	Design of anapole mode electromagnetic field enhancement structures for biosensing applications. Optics Express, 2019, 27, 7196.	1.7	37
78	Advantages and application of label-free detection assays in drug screening. Expert Opinion on Drug Discovery, 2008, 3, 891-901.	2.5	36
79	Label-Free Photonic Crystal Biosensor Integrated Microfluidic Chip for Determination of Kinetic Reaction Rate Constants. IEEE Sensors Journal, 2009, 9, 1697-1704.	2.4	36
80	Photonic Crystal Surfaces as a General Purpose Platform for Label-Free and Fluorescent Assays. Journal of the Association for Laboratory Automation, 2010, 15, 120-135.	2.8	36
81	Plasmonic coupling of SiO <sub>2</sub> @Ag core-shell nanostructures and silver film for surface enhanced Raman scattering. Applied Physics Letters, 2011, 98, 153103.	1.5	36
82	External cavity laser biosensor. Lab on A Chip, 2013, 13, 1247.	3.1	35
83	Critical Review: digital resolution biomolecular sensing for diagnostics and life science research. Lab on A Chip, 2020, 20, 2816-2840.	3.1	35
84	Photonic crystals with SiO <sub>2</sub> @Ag core-shell nanostructure coatings for surface enhanced Raman spectroscopy. Applied Physics Letters, 2008, 93, 143112.	1.5	34
85	High sensitivity automated multiplexed immunoassays using photonic crystal enhanced fluorescence microfluidic system. Biosensors and Bioelectronics, 2015, 73, 32-40.	5.3	34
86	Electrohydrodynamic jet printing of micro-optical devices. Manufacturing Letters, 2014, 2, 4-7.	1.1	33
87	Multiplexed Cancer Biomarker Detection Using Quartz-Based Photonic Crystal Surfaces. Analytical Chemistry, 2012, 84, 1126-1133.	3.2	31
88	Photonic resonator interferometric scattering microscopy. Nature Communications, 2021, 12, 1744.	5.8	31
89	Activate capture and digital counting (AC + DC) assay for protein biomarker detection integrated with a self-powered microfluidic cartridge. Lab on A Chip, 2019, 19, 3943-3953.	3.1	30
90	Microcavity Plasma Devices and Arrays Fabricated by Plastic-Based Replica Molding. Journal of Microelectromechanical Systems, 2007, 16, 1397-1402.	1.7	29

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91	Resonant Mode Engineering of Photonic Crystal Sensors Clad with Ultralow Refractive Index Porous Silicon Dioxide. <i>Advanced Optical Materials</i> , 2017, 5, 1700605.	3.6	29
92	Label-free imaging of cell attachment with photonic crystal enhanced microscopy. <i>Analyst, The</i> , 2011, 136, 3608.	1.7	28
93	Self-referenced assay method for photonic crystal biosensors: Application to small molecule analytes. <i>Sensors and Actuators B: Chemical</i> , 2007, 120, 392-398.	4.0	26
94	Innovative Techniques for Evaluating Behavioral Nutrition Interventions. <i>Advances in Nutrition</i> , 2017, 8, 113-125.	2.9	26
95	Isolation, Detection, and Quantification of Cancer Biomarkers in HPV-Associated Malignancies. <i>Scientific Reports</i> , 2017, 7, 3322.	1.6	26
96	Microcavity-Mediated Spectrally Tunable Amplification of Absorption in Plasmonic Nanoantennas. <i>Nano Letters</i> , 2019, 19, 5297-5303.	4.5	26
97	Label-Free Digital Detection of Intact Virions by Enhanced Scattering Microscopy. <i>Journal of the American Chemical Society</i> , 2022, 144, 1498-1502.	6.6	26
98	Detection of Protein-Small Molecule Binding Using a Self-Referencing External Cavity Laser Biosensor. <i>Journal of the American Chemical Society</i> , 2014, 136, 5840-5843.	6.6	25
99	Enhanced Plasmonic Photocatalysis through Synergistic Plasmonic-Photonic Hybridization. <i>ACS Photonics</i> , 2020, 7, 1994-2001.	3.2	25
100	Enhanced fluorescence emission using a photonic crystal coupled to an optical cavity. <i>Applied Physics Letters</i> , 2013, 102, 221114.	1.5	24
101	Analysis of Paper-Based Colorimetric Assays With a Smartphone Spectrometer. <i>IEEE Sensors Journal</i> , 2019, 19, 508-514.	2.4	23
102	High Sensitivity Plastic-Substrate Photonic Crystal Biosensor. <i>IEEE Sensors Journal</i> , 2008, 8, 1546-1547.	2.4	22
103	Plasmonic external cavity laser refractometric sensor. <i>Optics Express</i> , 2014, 22, 20347.	1.7	22
104	High-Fidelity Single Molecule Quantification in a Flow Cytometer Using Multiparametric Optical Analysis. <i>ACS Nano</i> , 2020, 14, 2324-2335.	7.3	22
105	Nanofluidic channels of arbitrary shapes fabricated by tip-based nanofabrication. <i>Nanotechnology</i> , 2014, 25, 455301.	1.3	21
106	Smartphone clip-on instrument and microfluidic processor for rapid sample-to-answer detection of Zika virus in whole blood using spatial RT-LAMP. <i>Analyst, The</i> , 2022, 147, 3838-3853.	1.7	21
107	Voltage-tuned resonant reflectance optical filter for visible wavelengths fabricated by nanoreplica molding. <i>Applied Physics Letters</i> , 2007, 90, 261109.	1.5	20
108	VCSEL Optoelectronic Biosensor for Detection of Infectious Diseases. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 443-445.	1.3	20

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109	Magnification of photonic crystal fluorescence enhancement via TM resonance excitation and TE resonance extraction on a dielectric nanorod surface. <i>Nanotechnology</i> , 2010, 21, 125203.	1.3	20
110	Compact characterization of liquid absorption and emission spectra using linear variable filters integrated with a CMOS imaging camera. <i>Scientific Reports</i> , 2016, 6, 29117.	1.6	20
111	Porous photonic crystal external cavity laser biosensor. <i>Applied Physics Letters</i> , 2016, 109, 071103.	1.5	20
112	Application of photonic crystal enhanced fluorescence to detection of low serum concentrations of human IgE antibodies specific for a purified cat allergen (Fel D1). <i>Biosensors and Bioelectronics</i> , 2016, 77, 194-201.	5.3	20
113	Quantitative analysis of focal adhesion dynamics using photonic resonator outcoupler microscopy (PROM). <i>Light: Science and Applications</i> , 2018, 7, .	7.7	20
114	Many-body theory of positron binding to polyatomic molecules. <i>Nature</i> , 2022, 606, 688-693.	13.7	20
115	A Self-Referencing Method for Microplate Label-Free Photonic-Crystal Biosensors. <i>IEEE Sensors Journal</i> , 2006, 6, 1551-1556.	2.4	19
116	Fluorescence enhancement by a photonic crystal with a nanorod-structured high index layer. <i>Applied Physics Letters</i> , 2008, 93, 133115.	1.5	19
117	Enhanced quantum dot optical down-conversion using asymmetric 2D photonic crystals. <i>Optics Express</i> , 2011, 19, 3908.	1.7	19
118	Accelerated Digital Biodetection Using Magneto-plasmonic Nanoparticle-Coupled Photonic Resonator Absorption Microscopy. <i>ACS Nano</i> , 2022, 16, 2345-2354.	7.3	19
119	A Method for Identifying Small-Molecule Aggregators Using Photonic Crystal Biosensor Microplates. <i>Journal of the Association for Laboratory Automation</i> , 2009, 14, 348-359.	2.8	17
120	A replica molding technique for producing fibrous chitosan scaffolds for cartilage engineering. <i>Journal of Materials Chemistry</i> , 2007, 17, 4095.	6.7	16
121	Spatially selective photonic crystal enhanced fluorescence and application to background reduction for biomolecule detection assays. <i>Optics Express</i> , 2011, 19, 23327.	1.7	16
122	Quick detection of contaminants leaching from polypropylene centrifuge tubes with surface-enhanced Raman spectroscopy and ultraviolet absorption spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 1939-1944.	1.2	16
123	A compact photonic resonator absorption microscope for point of care digital resolution nucleic acid molecular diagnostics. <i>Biomedical Optics Express</i> , 2021, 12, 4637.	1.5	16
124	Microscopies Enabled by Photonic Metamaterials. <i>Sensors</i> , 2022, 22, 1086.	2.1	16
125	A self-referencing biosensor based upon a dual-mode external cavity laser. <i>Applied Physics Letters</i> , 2013, 102, 213701.	1.5	15
126	Planar Photonic Crystal Biosensor for Quantitative Label-Free Cell Attachment Microscopy. <i>Advanced Optical Materials</i> , 2015, 3, 1623-1632.	3.6	15



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127	Distributed Feedback Laser Biosensor Noise Reduction. IEEE Sensors Journal, 2013, 13, 1972-1978.	2.4	14
128	Deposited nanorod films for photonic crystal biosensor applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 996-1001.	0.9	13
129	Direct Detection of Transcription Factors in Cotyledons during Seedling Development Using Sensitive Silicon-Substrate Photonic Crystal Protein Arrays. Plant Physiology, 2015, 167, 639-649.	2.3	13
130	Polarized quantum dot emission in electrohydrodynamic jet printed photonic crystals. Applied Physics Letters, 2015, 107, .	1.5	13
131	Characterization of polycrystalline silicon single-crystal silicon interfaces and correlation to bipolar transistor device data. Journal of Applied Physics, 1991, 69, 495-498.	1.1	12
132	Line-scanning detection instrument for photonic crystal enhanced fluorescence. Optics Letters, 2012, 37, 2565.	1.7	12
133	Coupled external cavity photonic crystal enhanced fluorescence. Journal of Biophotonics, 2014, 7, 332-340.	1.1	12
134	Digital-resolution and highly sensitive detection of multiple exosomal small RNAs by DNA toehold probe-based photonic resonator absorption microscopy. Talanta, 2022, 241, 123256.	2.9	12
135	Enhancement of pump efficiency of a visible wavelength organic distributed feedback laser by resonant optical pumping. Optics Express, 2011, 19, 5086.	1.7	11
136	Quantitative imaging of cell membrane-associated effective mass density using Photonic Crystal Enhanced Microscopy (PCEM). Progress in Quantum Electronics, 2016, 50, 1-18.	3.5	11
137	Lasing Emission from Plasmonic Nanodome Arrays. Advanced Optical Materials, 2016, 4, 708-714.	3.6	11
138	Recognition of apoptotic cells by viable cells is specific, ubiquitous, and species independent: analysis using photonic crystal biosensors. Molecular Biology of the Cell, 2014, 25, 1704-1714.	0.9	10
139	Integrated 2D photonic crystal stack filter fabricated using nanoreplica molding. Optics Express, 2010, 18, 11846.	1.7	9
140	Overcoming the limitations of COVID-19 diagnostics with nanostructures, nucleic acid engineering, and additive manufacturing. Current Opinion in Solid State and Materials Science, 2022, 26, 100966.	5.6	9
141	Photobleaching on Photonic Crystal Enhanced Fluorescence Surfaces. Journal of Fluorescence, 2011, 21, 707-714.	1.3	8
142	An ignition key for atomic-scale engines. Journal of Physics Condensed Matter, 2012, 24, 402203.	0.7	7
143	Nonconservative current-driven dynamics: beyond the nanoscale. Beilstein Journal of Nanotechnology, 2015, 6, 2140-2147.	1.5	7
144	Smartphone-based thin layer chromatography for the discrimination of falsified medicines. , 2016, , .		7

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145	Integrated spectroscopic analysis system with low vertical height for measuring liquid or solid assays. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 935-943.	4.0	7
146	Spectrometric Smartphone-Based System for Ibuprofen Quantification in Commercial Dosage Tablets. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 2593-2598.	1.6	7
147	Region specific enhancement of quantum dot emission using interleaved two-dimensional photonic crystals. <i>Applied Optics</i> , 2015, 54, 2302.	0.9	6
148	Detection of growth factor binding to gelatin and heparin using a photonic crystal optical biosensor. <i>Materials Science and Engineering C</i> , 2010, 30, 686-690.	3.8	5
149	Tunable ring laser with internal injection seeding and an optically-driven photonic crystal reflector. <i>Optics Express</i> , 2012, 20, 14292.	1.7	5
150	An Automated Microfluidic Assay for Photonic Crystal Enhanced Detection and Analysis of an Antiviral Antibody Cancer Biomarker in Serum. <i>IEEE Sensors Journal</i> , 2018, 18, 1464-1473.	2.4	5
151	Microstructural effects of emitter size on polysilicon emitter bipolar transistors. <i>Journal of Applied Physics</i> , 1991, 70, 5318-5322.	1.1	4
152	Enhanced emission of quantum dots embedded within the high-index dielectric regions of photonic crystal slabs. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	4
153	Achieving uniformity and reproducibility for photonic crystal fluorescence enhanced disease diagnostic microarrays. , 2016, , .		4
154	Comparison of Methods Study between a Photonic Crystal Biosensor and Certified ELISA to Measure Biomarkers of Iron Deficiency in Chronic Kidney Disease Patients. <i>Sensors</i> , 2017, 17, 2203.	2.1	4
155	Development of a Linker-Mediated Immunoassay Using Chemically Transitioned Nanosensors. <i>Analytical Chemistry</i> , 2020, 92, 3627-3635.	3.2	4
156	Large infrared absorptance of bimaterial microcantilevers based on silicon high contrast grating. <i>Journal of Applied Physics</i> , 2013, 114, 153511.	1.1	3
157	Non-conservative forces in bulk systems. <i>Materials Science and Technology</i> , 2017, 33, 1442-1446.	0.8	2
158	Detection and Digital Resolution Counting of Nanoparticles with Optical Resonators and Applications in Biosensing. <i>Chemosensors</i> , 2018, 6, 13.	1.8	2
159	An automated microfluidic assay for the detection of cancer biomarkers in serum using photonic crystal enhanced fluorescence. , 2016, , .		2
160	Surface-enhanced Raman scattering nanodomains fabricated by nanoreplica molding. , 2010, , .		1
161	Plastic-based distributed feedback laser biosensors in microplate format. , 2011, , .		1
162	Nanodome sensor tubing for monitoring of intravenous drug infusion and metabolites. , 2011, , .		1

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163	Nanoantenna-microcavity hybrid resonators with highly cooperative plasmonic-photonic coupling. , 2017, , .		1
164	Label-free Imaging of Stem Cell Adhesion and Dynamic Tracking of Boundary Evolution Using Photonic Crystal Enhanced Microscopy (PCEM). Microscopy and Microanalysis, 2017, 23, 1142-1143.	0.2	1
165	Mobile biosensing using the sensing capabilities of smartphone cameras. , 2017, , .		1
166	Quantum dot emission modulation using piezoelectric photonic crystal MEMS resonators. Optics Express, 2017, 25, 25831.	1.7	1
167	A label-free photonic crystal biosensor for the assessment of iron status using ferritin. FASEB Journal, 2013, 27, .	0.2	1
168	Microscopy in the Real World - Instrumentation Requirements. Microscopy and Microanalysis, 2001, 7, 524-525.	0.2	0
169	Design and Implementation of Vertically Emitting Distributed Feedback Lasers for Biological Sensing. , 2011, , 27-40.		0
170	Photonic crystal biodetection using a portable smartphone system. , 2013, , .		0
171	Laser biosensors for drug discovery. , 2014, , .		0
172	Photonic crystal coupled plasmonic hybrid nanosensors. , 2016, , .		0
173	Integration of linear variable filters on CMOS for compact emission and absorption sensing. , 2016, , .		0
174	Gene-Edited Live Cell Sensor for Free Calcium. , 2019, , .		0
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