

Patrick C Mathias

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

2,302
citations

304743

22
h-index

223800

46
g-index

62
all docs

62
docs citations

62
times ranked

4226
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance Characteristics of the Abbott Architect SARS-CoV-2 IgG Assay and Seroprevalence in Boise, Idaho. <i>Journal of Clinical Microbiology</i> , 2020, 58, .	3.9	496
2	Enhanced fluorescence emission from quantum dots on a photonic crystal surface. <i>Nature Nanotechnology</i> , 2007, 2, 515-520.	31.5	430
3	Responding to COVID-19: The UW Medicine Information Technology Services Experience. <i>Applied Clinical Informatics</i> , 2020, 11, 265-275.	1.7	120
4	Leaky-mode assisted fluorescence extraction: application to fluorescence enhancement biosensors. <i>Optics Express</i> , 2008, 16, 21626.	3.4	96
5	Application of Photonic Crystal Enhanced Fluorescence to a Cytokine Immunoassay. <i>Analytical Chemistry</i> , 2008, 80, 9013-9020.	6.5	85
6	A detection instrument for enhanced-fluorescence and label-free imaging on photonic crystal surfaces. <i>Optics Express</i> , 2009, 17, 13222.	3.4	65
7	Hospitalization and mortality associated with SARS-CoV-2 viral clades in COVID-19. <i>Scientific Reports</i> , 2021, 11, 4802.	3.3	55
8	Combined enhanced fluorescence and label-free biomolecular detection with a photonic crystal surface. <i>Applied Optics</i> , 2007, 46, 2351.	2.1	52
9	Enhanced Fluorescence on a Photonic Crystal Surface Incorporating Nanorod Structures. <i>Small</i> , 2008, 4, 2199-2203.	10.0	51
10	Pooling of SARS-CoV-2 samples to increase molecular testing throughput. <i>Journal of Clinical Virology</i> , 2020, 131, 104570.	3.1	51
11	Improved Sensitivity of DNA Microarrays Using Photonic Crystal Enhanced Fluorescence. <i>Analytical Chemistry</i> , 2010, 82, 6854-6861.	6.5	49
12	Distance dependence of fluorescence enhancement from photonic crystal surfaces. <i>Journal of Applied Physics</i> , 2008, 103, 083104.	2.5	44
13	Employing two distinct photonic crystal resonances to improve fluorescence enhancement. <i>Applied Physics Letters</i> , 2009, 95, 21111.	3.3	43
14	Vapor-phase Deposition of Monofunctional Alkoxysilanes for Sub-nanometer Level Biointerfacing on Silicon Oxide Surfaces. <i>Advanced Functional Materials</i> , 2010, 20, 87-95.	14.9	39
15	Associations Between Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Variants and Risk of Coronavirus Disease 2019 (COVID-19) Hospitalization Among Confirmed Cases in Washington State: A Retrospective Cohort Study. <i>Clinical Infectious Diseases</i> , 2022, 75, e536-e544.	5.8	38
16	Comparison of label-free biosensing in microplate, microfluidic, and spot-based affinity capture assays. <i>Analytical Biochemistry</i> , 2010, 405, 1-10.	2.4	37
17	Establishing evidence-based thresholds and laboratory practices to reduce inappropriate treatment of pseudohyperkalemia. <i>Clinical Biochemistry</i> , 2017, 50, 663-669.	1.9	36
18	Elevated White Blood Cell Count Does Not Predict <i>Clostridium difficile</i> Nucleic Acid Testing Results. <i>Clinical Infectious Diseases</i> , 2021, 73, 699-705.	5.8	34

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19	Label-Free Prehybridization DNA Microarray Imaging Using Photonic Crystals for Quantitative Spot Quality Analysis. <i>Analytical Chemistry</i> , 2010, 82, 8551-8557.	6.5	31
20	Specific allelic discrimination of N501Y and other SARS-CoV-2 mutations by ddPCR detects B.1.1.7 lineage in Washington State. <i>Journal of Medical Virology</i> , 2021, 93, 5931-5941.	5.0	31
21	SARS-CoV-2 Viral Load on Admission Is Associated With 30-Day Mortality. <i>Open Forum Infectious Diseases</i> , 2020, 7, ofaa535.	0.9	31
22	Graded wavelength one-dimensional photonic crystal reveals spectral characteristics of enhanced fluorescence. <i>Journal of Applied Physics</i> , 2008, 103, 094320.	2.5	28
23	Measuring the rate of manual transcription error in outpatient point-of-care testing. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2019, 26, 269-272.	4.4	28
24	The SARS-CoV-2 Omicron Variant Does Not Have Higher Nasal Viral Loads Compared to the Delta Variant in Symptomatic and Asymptomatic Individuals. <i>Journal of Clinical Microbiology</i> , 2022, 60, e0013922.	3.9	28
25	Detection of SARS-CoV-2 by bronchoscopy after negative nasopharyngeal testing: Stay vigilant for COVID-19. <i>Respiratory Medicine Case Reports</i> , 2020, 30, 101120.	0.4	24
26	Self-Associating Block Copolymer Networks for Microchip Electrophoresis Provide Enhanced DNA Separation via α -Inchworm-Chain Dynamics. <i>Analytical Chemistry</i> , 2006, 78, 4409-4415.	6.5	22
27	Optimizing the spatial resolution of photonic crystal label-free imaging. <i>Applied Optics</i> , 2009, 48, 6567.	2.1	22
28	Preventing Genetic Testing Order Errors With a Laboratory Utilization Management Program. <i>American Journal of Clinical Pathology</i> , 2016, 146, 221-226.	0.7	21
29	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.	2.6	20
30	Evaluation of matrix effects using a spike recovery approach in a dilute-and-inject liquid chromatography-tandem mass spectrometry opioid monitoring assay. <i>Clinica Chimica Acta</i> , 2014, 437, 38-42.	1.1	17
31	High Clinical Impact of Broad-Range Fungal PCR in Suspected Fungal Sinusitis. <i>Journal of Clinical Microbiology</i> , 2021, 59, e0095521.	3.9	17
32	Calculating estimated glomerular filtration rate without the race correction factor: Observations at a large academic medical system. <i>Clinica Chimica Acta</i> , 2021, 520, 16-22.	1.1	15
33	Deposited nanorod films for photonic crystal biosensor applications. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 996-1001.	2.1	13
34	Estimating the False-Positive Rate of Highly Automated SARS-CoV-2 Nucleic Acid Amplification Testing. <i>Journal of Clinical Microbiology</i> , 2021, 59, e0108021.	3.9	12
35	Applying Ancestry and Sex Computation as a Quality Control Tool in Targeted Next-Generation Sequencing. <i>American Journal of Clinical Pathology</i> , 2016, 145, 308-315.	0.7	9
36	Evidence-Based Validation of Hemolysis Index Thresholds by Use of Retrospective Clinical Data. <i>Journal of Applied Laboratory Medicine</i> , The, 2018, 3, 109-114.	1.3	7

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37	Preprocedural Surveillance Testing for SARS-CoV-2 in an Asymptomatic Population in the Seattle Region Shows Low Rates of Positivity. <i>Journal of Clinical Microbiology</i> , 2020, 58, .	3.9	6
38	The Lines That Held Us: Assessing Racial and Socioeconomic Disparities in SARS-CoV-2 Testing. <i>journal of applied laboratory medicine, The</i> , 2021, 6, 1143-1154.	1.3	6
39	Modeling the costs of clinical decision support for genomic precision medicine. <i>AMIA Summits on Translational Science Proceedings</i> , 2016, 2016, 60-4.	0.4	5
40	Implementation of pharmacogenomic clinical decision support for health systems: a cost-utility analysis. <i>Pharmacogenomics Journal</i> , 2022, 22, 188-197.	2.0	4
41	Listening to your mass spectrometer: An open-source toolkit to visualize mass spectrometer data. <i>Journal of Mass Spectrometry and Advances in the Clinical Lab</i> , 2022, 23, 44-49.	2.4	3
42	Hostâ€“pathogen dynamics in longitudinal clinical specimens from patients with COVID-19. <i>Scientific Reports</i> , 2022, 12, 5856.	3.3	3
43	Combined Enhanced Fluorescence and Label-Free Biomolecular Sensing with a Two-Dimensional Photonic Crystal. <i>Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS</i> , 2007, , .	0.0	2
44	A Tincture of Timeâ€”Latent Crystal Formation and Clinical Decision-Making in Acute Gout. <i>JAMA Internal Medicine</i> , 2016, 176, 165.	5.1	2
45	Laboratory Utilization and Analytical Validation of Fecal Electrolyte Tests. <i>journal of applied laboratory medicine, The</i> , 2017, 1, 668-677.	1.3	2
46	Robustness of the Beckman Coulter Access TSH (3rd IS) assay. <i>Clinica Chimica Acta</i> , 2018, 480, 112-113.	1.1	1
47	Development of a Workload Report to Optimize Staffing in a Transfusion Services Laboratory. <i>American Journal of Clinical Pathology</i> , 2018, 150, S144-S144.	0.7	1
48	Evaluation of Patient Demographics in Clinical Cancer Genomic Testing. <i>journal of applied laboratory medicine, The</i> , 2021, 6, 119-124.	1.3	1
49	Design and development of enhanced extraction biosensors based on photonic crystal slabs. , 2008, , .		0
50	Enhanced fluorescence via photonic crystal slabs incorporating nanorod structures. , 2008, , .		0
51	Photonic crystals: A platform for label-free and enhanced fluorescence biomolecular and cellular assays. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1133, 1.	0.1	0
52	Photonic crystal enhanced cytokine immunoassay. , 2009, 2009, 1036-8.		0
53	Distance dependant amplification of molecular fluorescence via photonic crystal slabs. , 2008, , .		0
54	PHOTONIC CRYSTALS FOR BIOSENSING. , 2011, , 329-358.		0