

Yordan Kostov

List of Publications by Year in descending order

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102
papers

3,679
citations

159585

30
h-index

144013

57
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102
all docs

102
docs citations

102
times ranked

3545
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid Ultrasensitive and High-Throughput Bioburden Detection: Microfluidics and Instrumentation. <i>Analytical Chemistry</i> , 2022, 94, 8683-8692.	6.5	4
2	Real-time dissolved carbon dioxide monitoring II: Surface aeration intensification for efficient CO ₂ removal in shake flasks and mini-bioreactors leads to superior growth and recombinant protein yields. <i>Biotechnology and Bioengineering</i> , 2020, 117, 992-998.	3.3	14
3	Real-time dissolved carbon dioxide monitoring I: Application of a novel in situ sensor for CO ₂ monitoring and control. <i>Biotechnology and Bioengineering</i> , 2020, 117, 981-991.	3.3	12
4	A Cell-Free Protein Expression System Derived from Human Primary Peripheral Blood Mononuclear Cells. <i>ACS Synthetic Biology</i> , 2020, 9, 2188-2196.	3.8	2
5	Manufacturing biological medicines on demand: Safety and efficacy of granulocyte colony-stimulating factor in a mouse model of total body irradiation. <i>Biotechnology Progress</i> , 2020, 36, e2970.	2.6	6
6	Wood Microfluidics. <i>Analytical Chemistry</i> , 2019, 91, 11004-11012.	6.5	20
7	Spacer and Cavity Engineering on Low-cost Plastic Substrates for 100-Fold Enhancements in Metal-Dielectric-Metal-Based Directional Fluorescence Emission. <i>Plasmonics</i> , 2019, 14, 731-736.	3.4	2
8	Low-cost customizable microscale toolkit for rapid screening and purification of therapeutic proteins. <i>Biotechnology and Bioengineering</i> , 2019, 116, 870-881.	3.3	10
9	Improving the recombinant human erythropoietin glycosylation using microsome supplementation in CHO cell-free system. <i>Biotechnology and Bioengineering</i> , 2018, 115, 1253-1264.	3.3	17
10	Cell-free production of a therapeutic protein: Expression, purification, and characterization of recombinant streptokinase using a CHO lysate. <i>Biotechnology and Bioengineering</i> , 2018, 115, 92-102.	3.3	36
11	Sensors for biomanufacturing process development: facilitating the shift from batch to continuous manufacturing. <i>Current Opinion in Chemical Engineering</i> , 2018, 22, 115-127.	7.8	22
12	Rapid recombinant protein expression in cell-free extracts from human blood. <i>Scientific Reports</i> , 2018, 8, 9569.	3.3	19
13	Distinguishing between whole cells and cell debris using surface plasmon coupled emission. <i>Biomedical Optics Express</i> , 2018, 9, 1977.	2.9	6
14	Point-of-care production of therapeutic proteins of good-manufacturing-practice quality. <i>Nature Biomedical Engineering</i> , 2018, 2, 675-686.	22.5	79
15	Development and characterization of a point-of care rate-based transcutaneous respiratory status monitor. <i>Medical Engineering and Physics</i> , 2018, 56, 36-41.	1.7	15
16	Optimizing cell-free protein expression in CHO: Assessing small molecule mass transfer effects in various reactor configurations. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1478-1486.	3.3	14
17	Rapid Detection of Microbial Contamination Using a Microfluidic Device. <i>Methods in Molecular Biology</i> , 2017, 1571, 287-299.	0.9	5
18	Fiber optic biosensor for transdermal glucose based on the glucose binding protein. <i>Sensors and Actuators B: Chemical</i> , 2017, 242, 569-576.	7.8	34

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19	Micro-radar wearable respiration monitor. , 2016, , .		4
20	Optical sensor for rapid microbial detection. Proceedings of SPIE, 2016, , .	0.8	3
21	Versatile common instrumentation for optical detection of pH and dissolved oxygen. Review of Scientific Instruments, 2015, 86, 074302.	1.3	12
22	Non-Invasive Optical Sensor Based Approaches for Monitoring Virus Culture to Minimize BSL3 Laboratory Entry. Sensors, 2015, 15, 14864-14870.	3.8	1
23	Universal optical platform for monitoring of bioprocess variables. , 2015, , .		0
24	A unique noninvasive approach to monitoring dissolved O ₂ and CO ₂ in cell culture. Biotechnology and Bioengineering, 2015, 112, 104-110.	3.3	14
25	A Low-Cost Fluorescent Sensor for pCO ₂ Measurements. Chemosensors, 2014, 2, 108-120.	3.6	10
26	A completely noninvasive method of dissolved oxygen monitoring in disposable small-scale cell culture vessels based on diffusion through permeable vessel walls. Biotechnology Progress, 2014, 30, 172-177.	2.6	12
27	Fluorescence-Based Method and a Device for Rapid Detection of Microbial Contamination. PDA Journal of Pharmaceutical Science and Technology, 2014, 68, 164-171.	0.5	9
28	Portable system for the detection of micromolar concentrations of glucose. Measurement Science and Technology, 2014, 25, 025701.	2.6	18
29	A novel approach toward noninvasive monitoring of transcutaneous CO ₂ . Medical Engineering and Physics, 2014, 36, 136-139.	1.7	9
30	Charged-Coupled Device (CCD) Detectors for Lab-on-a Chip (LOC) Optical Analysis. Methods in Molecular Biology, 2013, 949, 365-385.	0.9	7
31	Electrical percolation based biosensors. Methods, 2013, 63, 282-289.	3.8	16
32	An ELISA Lab-on-a-Chip (ELISA-LOC). Methods in Molecular Biology, 2013, 949, 451-471.	0.9	22
33	Detection of Trace Glucose on the Surface of a Semipermeable Membrane Using a Fluorescently Labeled Glucose-Binding Protein: A Promising Approach to Noninvasive Glucose Monitoring. Journal of Diabetes Science and Technology, 2013, 7, 4-12.	2.2	11
34	Image stacking approach to increase sensitivity of fluorescence detection using a low cost complementary metal-oxide-semiconductor (CMOS) webcam. Sensors and Actuators B: Chemical, 2012, 171-172, 141-147.	7.8	26
35	Study on low-cost calibration-free pH sensing with disposable optical sensors. Analytica Chimica Acta, 2012, 734, 79-87.	5.4	16
36	Lensless CCD-based fluorometer using a micromachined optical SÅ¶ller collimator. Lab on A Chip, 2011, 11, 941.	6.0	37

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37	Study of the biouptake of labeled single-walled carbon nanotubes using fluorescence-based method. <i>Environmental Chemistry Letters</i> , 2011, 9, 235-241.	16.2	14
38	An automated point-of-care system for immunodetection of staphylococcal enterotoxin B. <i>Analytical Biochemistry</i> , 2011, 416, 74-81.	2.4	43
39	A simple 96-well microfluidic chip combined with visual and densitometry detection for resource-poor point of care testing. <i>Sensors and Actuators B: Chemical</i> , 2011, 153, 176-181.	7.8	18
40	Multi-wavelength spatial LED illumination based detector for in vitro detection of botulinum neurotoxin A activity. <i>Sensors and Actuators B: Chemical</i> , 2010, 146, 297-306.	7.8	29
41	Studies of Surface-Adsorbed Fluorescently Labeled Casein and Concanavalin A Using Surface Plasmon-Coupled Emission. <i>Plasmonics</i> , 2010, 5, 383-387.	3.4	11
42	Solution deposition of nanometer scale silver films as an alternative to vapor deposition for plasmonic excitation. <i>Thin Solid Films</i> , 2010, 518, 3772-3777.	1.8	11
43	Electrical percolation-based biosensor for real-time direct detection of staphylococcal enterotoxin B (SEB). <i>Biosensors and Bioelectronics</i> , 2010, 25, 2573-2578.	10.1	25
44	Biological Semiconductor Based on Electrical Percolation. <i>Analytical Chemistry</i> , 2010, 82, 3567-3572.	6.5	12
45	Low-Cost Plastic Plasmonic Substrates for Operation in Aqueous Environments. <i>Applied Spectroscopy</i> , 2010, 64, 1234-1237.	2.2	8
46	Lab-on-a-chip for carbon nanotubes based immunoassay detection of Staphylococcal Enterotoxin B (SEB). <i>Lab on A Chip</i> , 2010, 10, 1011.	6.0	68
47	ELISA-LOC: lab-on-a-chip for enzyme-linked immunodetection. <i>Lab on A Chip</i> , 2010, 10, 2093.	6.0	116
48	Lab-on-a-chip for label free biological semiconductor analysis of Staphylococcal Enterotoxin B. <i>Lab on A Chip</i> , 2010, 10, 2534.	6.0	13
49	A luminescence lifetime assisted ratiometric fluorimeter for biological applications. <i>Review of Scientific Instruments</i> , 2009, 80, 124302.	1.3	12
50	Optical Replacement of pH Electrode. <i>IEEE Sensors Journal</i> , 2009, 9, 219-220.	4.7	13
51	Economical wireless optical ratiometric pH sensor. <i>Measurement Science and Technology</i> , 2009, 20, 045202.	2.6	5
52	Gold nanoparticle-based enhanced chemiluminescence immunosensor for detection of Staphylococcal Enterotoxin B (SEB) in food. <i>International Journal of Food Microbiology</i> , 2009, 133, 265-271.	4.7	107
53	Miniaturized 96-well ELISA chips for staphylococcal enterotoxin B detection using portable colorimetric detector. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 499-505.	3.7	57
54	Photodiode-Based Detection System for Biosensors. <i>Methods in Molecular Biology</i> , 2009, 503, 307-323.	0.9	2

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55	Spectral resolution of molecular ensembles under ambient conditions using surface plasmon coupled fluorescence emission. <i>Applied Optics</i> , 2009, 48, 5348.	2.1	29
56	Optical Instrumentation for Bioprocess Monitoring. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2009, 116, 125-142.	1.1	13
57	Lab-on-a-chip for botulinum neurotoxin a (BoNT-A) activity analysis. <i>Lab on A Chip</i> , 2009, 9, 3275.	6.0	55
58	High-resolution surface plasmon coupled resonant filter for monitoring of fluorescence emission from molecular multiplexes. <i>Applied Physics Letters</i> , 2009, 94, 223113.	3.3	26
59	Energy transfer-based biosensing of protease activity measured using an electroluminescent platform. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
60	A Simple Portable Electroluminescence Illumination-Based CCD Detector. <i>Methods in Molecular Biology</i> , 2009, 503, 259-272.	0.9	18
61	A novel method for monitoring monoclonal antibody production during cell culture. <i>Biotechnology and Bioengineering</i> , 2008, 100, 448-457.	3.3	16
62	Development and application of an excitation ratiometric optical pH sensor for bioprocess monitoring. <i>Biotechnology Progress</i> , 2008, 24, 1393-1401.	2.6	32
63	A fluorescence detection platform using spatial electroluminescent excitation for measuring botulinum neurotoxin A activity. <i>Biosensors and Bioelectronics</i> , 2008, 24, 618-625.	10.1	58
64	Low-cost optical lifetime assisted ratiometric glutamine sensor based on glutamine binding protein. <i>Analytical Biochemistry</i> , 2008, 383, 61-67.	2.4	15
65	The Design and Fabrication of Three-Chamber Microscale Cell Culture Analog Devices with Integrated Dissolved Oxygen Sensors. <i>Biotechnology Progress</i> , 2008, 20, 338-345.	2.6	299
66	Carbon nanotubes based optical immunodetection of Staphylococcal Enterotoxin B (SEB) in food. <i>International Journal of Food Microbiology</i> , 2008, 127, 78-83.	4.7	58
67	Signal enhancement of surface plasmon-coupled directional emission by a conical mirror. <i>Applied Optics</i> , 2008, 47, 5229.	2.1	26
68	Carbon Nanotubes with Enhanced Chemiluminescence Immunoassay for CCD-Based Detection of Staphylococcal Enterotoxin B in Food. <i>Analytical Chemistry</i> , 2008, 80, 8532-8537.	6.5	82
69	Optical Ratiometric Sensor for Alcohol Measurements. <i>Analytical Letters</i> , 2007, 40, 715-727.	1.8	26
70	Comparisons of optical pH and dissolved oxygen sensors with traditional electrochemical probes during mammalian cell culture. <i>Biotechnology and Bioengineering</i> , 2007, 97, 833-841.	3.3	90
71	SPCE-based sensors: Ultrafast oxygen sensing using surface plasmon-coupled emission from ruthenium probes. <i>Sensors and Actuators B: Chemical</i> , 2007, 127, 432-440.	7.8	33
72	Validation of an optical sensor-based high-throughput bioreactor system for mammalian cell culture. <i>Journal of Biotechnology</i> , 2006, 122, 293-306.	3.8	97

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73	Rapid non-invasive monitoring of baculovirus infection for insect larvae using green fluorescent protein reporter under early-to-late promoter and a GFP-specific optical probe. <i>Process Biochemistry</i> , 2006, 41, 947-950.	3.7	8
74	Design and performance of a 24-station high throughput microbioreactor. <i>Biotechnology and Bioengineering</i> , 2006, 93, 6-13.	3.3	69
75	Optical analysis of liquid mixing in a minibioreactor. <i>Biotechnology and Bioengineering</i> , 2006, 93, 906-911.	3.3	26
76	Directional Surface Plasmon-Coupled Emission from a 3 nm Green Fluorescent Protein Monolayer. <i>Biotechnology Progress</i> , 2005, 21, 1731-1735.	2.6	29
77	Confocal Optical System: A Novel Noninvasive Sensor To Study Mixing. <i>Biotechnology Progress</i> , 2005, 21, 1531-1536.	2.6	5
78	Low-cost noninvasive optical CO ₂ sensing system for fermentation and cell culture. <i>Biotechnology and Bioengineering</i> , 2005, 89, 329-334.	3.3	55
79	First Observation of Surface Plasmon-Coupled Emission Due to LED Excitation. <i>Journal of Fluorescence</i> , 2005, 15, 895-900.	2.5	17
80	Fluorescence-Based Sensors for Bioprocess Monitoring. , 2005, , 333-349.		1
81	Functional cardiac cell constructs on cellulose-based scaffolding. <i>Biomaterials</i> , 2004, 25, 5753-5762.	11.4	289
82	Ex vivo monitoring of protein production in baculovirus-infected <i>Trichoplusia ni</i> larvae with a GFP-specific optical probe. <i>Biotechnology and Bioengineering</i> , 2003, 83, 241-247.	3.3	8
83	Ratio measurements in oxygen determinations: wavelength ratiometry, lifetime discrimination, and polarization detection. <i>Sensors and Actuators B: Chemical</i> , 2003, 90, 139-142.	7.8	23
84	High-stability non-invasive autoclavable naked optical CO ₂ sensor. <i>Biosensors and Bioelectronics</i> , 2003, 18, 857-865.	10.1	70
85	Low-cost gated system for monitoring phosphorescence lifetimes. <i>Review of Scientific Instruments</i> , 2003, 74, 4129-4133.	1.3	10
86	Rapid method for the preparation of a robust optical pH sensor. <i>Analyst, The</i> , 2003, 128, 1181.	3.5	65
87	Dual-emitting biosensors for glucose and glutamine from genetically engineered <i>E. coli</i> binding proteins. , 2003, , .		1
88	Polarization Oxygen Sensor: A Template for a Class of Fluorescence-Based Sensors. <i>Analytical Chemistry</i> , 2002, 74, 2167-2171.	6.5	11
89	Noninvasive measurement of dissolved oxygen in shake flasks. <i>Biotechnology and Bioengineering</i> , 2002, 80, 594-597.	3.3	89
90	Bioprocess monitoring. <i>Current Opinion in Biotechnology</i> , 2002, 13, 124-127.	6.6	146

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91	Dual Excitation Ratiometric Fluorescent pH Sensor for Noninvasive Bioprocess Monitoring: Development and Application. <i>Biotechnology Progress</i> , 2002, 18, 1047-1053.	2.6	149
92	Ratiometric pH Measurements Using LysoSensor DND-192. <i>BMB Reports</i> , 2002, 35, 384-388.	2.4	6
93	Low-cost microbioreactor for high-throughput bioprocessing. <i>Biotechnology and Bioengineering</i> , 2001, 72, 346-352.	3.3	189
94	Ratiometric Sensing Using Dual-Frequency Lifetime Discrimination. <i>Analytical Biochemistry</i> , 2001, 297, 105-108.	2.4	22
95	Rapid Covalent Method for Fabrication of Optical pH Sensitive Membranes. <i>Analytical Letters</i> , 2000, 33, 413-423.	1.8	7
96	All solid-state GFP sensor. <i>Biotechnology and Bioengineering</i> , 2000, 70, 473-477.	3.3	33
97	Unique Oxygen Analyzer Combining a Dual Emission Probe and a Low-Cost Solid-State Ratiometric Fluorometer. <i>Applied Spectroscopy</i> , 2000, 54, 864-868.	2.2	27
98	Ratiometric oxygen sensing: detection of dual-emission ratio through a single emission filter. <i>Analyst, The</i> , 2000, 125, 1175-1178.	3.5	45
99	Low-cost optical instrumentation for biomedical measurements. <i>Review of Scientific Instruments</i> , 2000, 71, 4361.	1.3	68
100	Low-cost device for ratiometric fluorescence measurements. <i>Review of Scientific Instruments</i> , 1999, 70, 4466-4470.	1.3	21
101	Membranes for optical pH sensors. <i>Analytica Chimica Acta</i> , 1993, 280, 15-19.	5.4	96
102	Dynamic model of an optical absorption-based pH sensor. <i>Analyst, The</i> , 1993, 118, 987.	3.5	13