

Jonathan W Aylott

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7908894/publications.pdf>

Version: 2024-02-01

80
papers

2,947
citations

201385

27
h-index

174990

52
g-index

83
all docs

83
docs citations

83
times ranked

4275
citing authors

#	ARTICLE	IF	CITATIONS
1	A Real-Time Ratiometric Method for the Determination of Molecular Oxygen Inside Living Cells Using Sol [®] Gel-Based Spherical Optical Nanosensors with Applications to Rat C6 Glioma. <i>Analytical Chemistry</i> , 2001, 73, 4124-4133.	3.2	324
2	Dual fluorescent labelling of cellulose nanocrystals for pH sensing. <i>Chemical Communications</i> , 2010, 46, 8929.	2.2	206
3	A fluorescent PEBBLE nanosensor for intracellular free zinc. <i>Analyst, The</i> , 2002, 127, 11-16.	1.7	147
4	Fluorescent nano-PEBBLE sensors designed for intracellular glucose imaging. <i>Analyst, The</i> , 2002, 127, 1471-1477.	1.7	133
5	Optical nanosensors—enabling technology for intracellular measurements. <i>Analyst, The</i> , 2003, 128, 309-312.	1.7	132
6	Sol [®] gel encapsulation of metalloproteins for the development of optical biosensors for nitrogen monoxide and carbon monoxide. <i>Analyst, The</i> , 1995, 120, 2725-2730.	1.7	97
7	Mapping the Pharyngeal and Intestinal pH of <i>Caenorhabditis elegans</i> and Real-Time Luminal pH Oscillations Using Extended Dynamic Range pH-Sensitive Nanosensors. <i>ACS Nano</i> , 2013, 7, 5577-5587.	7.3	97
8	Thermoresponsive Polymer Colloids for Drug Delivery and Cancer Therapy. <i>Macromolecular Bioscience</i> , 2011, 11, 1722-1734.	2.1	90
9	Optical Biosensing of Nitrate Ions Using a Sol [®] Gel Immobilized Nitrate Reductase. <i>Analyst, The</i> , 1997, 122, 77-80.	1.7	89
10	New generation of bioreactors that advance extracellular matrix modelling and tissue engineering. <i>Biotechnology Letters</i> , 2019, 41, 1-25.	1.1	77
11	Using microfluidics for scalable manufacturing of nanomedicines from bench to GMP: A case study using protein-loaded liposomes. <i>International Journal of Pharmaceutics</i> , 2020, 582, 119266.	2.6	72
12	Immunocompetent 3D Model of Human Upper Airway for Disease Modeling and In Vitro Drug Evaluation. <i>Molecular Pharmaceutics</i> , 2014, 11, 2082-2091.	2.3	66
13	Enhanced uptake of nanoparticle drug carriers via a thermoresponsive shell enhances cytotoxicity in a cancer cell line. <i>Biomaterials Science</i> , 2013, 1, 434.	2.6	63
14	Real time Raman imaging to understand dissolution performance of amorphous solid dispersions. <i>Journal of Controlled Release</i> , 2014, 188, 53-60.	4.8	62
15	Protease sensing with nanoparticle based platforms. <i>Analyst, The</i> , 2011, 136, 29-41.	1.7	61
16	Dual-fluorophore ratiometric pH nanosensor with tuneable pKa and extended dynamic range. <i>Analyst, The</i> , 2011, 136, 1799.	1.7	58
17	Integrated organic light-emitting device/fluorescence-based chemical sensors. <i>Applied Physics Letters</i> , 2002, 81, 4652-4654.	1.5	57
18	Optical Biosensing of Gaseous Nitric Oxide Using Spin-Coated Sol [®] Gel Thin Films. <i>Chemistry of Materials</i> , 1997, 9, 2261-2263.	3.2	54

#	ARTICLE	IF	CITATIONS
19	Thermo-optical characterization of fluorescent rhodamine B based temperature-sensitive nanosensors using a CMOS MEMS micro-hotplate. <i>Sensors and Actuators B: Chemical</i> , 2014, 192, 126-133.	4.0	50
20	A novel electrospun biphasic scaffold provides optimal three-dimensional topography for <i>in vitro</i> co-culture of airway epithelial and fibroblast cells. <i>Biofabrication</i> , 2014, 6, 035014.	3.7	43
21	Protein identification by 3D OrbiSIMS to facilitate in situ imaging and depth profiling. <i>Nature Communications</i> , 2020, 11, 5832.	5.8	40
22	Optical calcium sensors: development of a generic method for their introduction to the cell using conjugated cell penetrating peptides. <i>Analyst</i> , The, 2005, 130, 163.	1.7	39
23	A facile method to clickable sensing polymeric nanoparticles. <i>Chemical Communications</i> , 2009, , 6601.	2.2	36
24	Indomethacin-Kollidon VA64 Extrudates: A Mechanistic Study of pH-Dependent Controlled Release. <i>Molecular Pharmaceutics</i> , 2016, 13, 1166-1175.	2.3	32
25	The delivery of PEBBLE nanosensors to measure the intracellular environment. <i>Biochemical Society Transactions</i> , 2007, 35, 538-543.	1.6	30
26	A non-invasive analysis method for on-chip spectrophotometric detection using liquid-core waveguiding within a 3D architecture. <i>Analyst</i> , The, 2003, 128, 1336.	1.7	29
27	Optical biosensing of nitric oxide using the metalloprotein cytochrome c. <i>Analyst</i> , The, 1999, 124, 129-134.	1.7	28
28	Investigating NF- κ B signaling in lung fibroblasts in 2D and 3D culture systems. <i>Respiratory Research</i> , 2015, 16, 144.	1.4	28
29	An optical sensor for reactive oxygen species: encapsulation of functionalised silica nanoparticles into silicate nanopores to reduce fluorophore leaching. <i>Analyst</i> , The, 2007, 133, 71-75.	1.7	27
30	Orthogonally bifunctionalised polyacrylamide nanoparticles: a support for the assembly of multifunctional nanodevices. <i>Nanoscale</i> , 2012, 4, 2034.	2.8	27
31	Rapid scale-up and production of active-loaded PEGylated liposomes. <i>International Journal of Pharmaceutics</i> , 2020, 586, 119566.	2.6	27
32	Monitoring the Dissolution Mechanisms of Amorphous Bicalutamide Solid Dispersions via Real-Time Raman Mapping. <i>Molecular Pharmaceutics</i> , 2015, 12, 1512-1522.	2.3	26
33	Real-time measurement of the intracellular pH of yeast cells during glucose metabolism using ratiometric fluorescent nanosensors. <i>Nanoscale</i> , 2017, 9, 5904-5911.	2.8	25
34	Using fluorescent pH-sensitive nanosensors to report their intracellular location after Tat-mediated delivery. <i>Integrative Biology (United Kingdom)</i> , 2009, 1, 318.	0.6	24
35	Fluorescent nanosensors for intracellular measurements: synthesis, characterization, calibration, and measurement. <i>Frontiers in Physiology</i> , 2013, 4, 401.	1.3	23
36	Conjugatable water-soluble Pt(II) and Pd(II) porphyrin complexes: novel nano- and molecular probes for optical oxygen tension measurement in tissue engineering. <i>Photochemical and Photobiological Sciences</i> , 2014, 13, 1039-1051.	1.6	23

#	ARTICLE	IF	CITATIONS
37	Controlled intracellular generation of reactive oxygen species in human mesenchymal stem cells using porphyrin conjugated nanoparticles. <i>Nanoscale</i> , 2015, 7, 14525-14531.	2.8	23
38	Protease responsive nanoprobe with tethered fluorogenic peptidyl 3-aryl coumarin substrates. <i>Chemical Communications</i> , 2009, , 671-673.	2.2	22
39	Facile synthesis of responsive nanoparticles with reversible, tunable and rapid thermal transitions from biocompatible constituents. <i>Chemical Communications</i> , 2009, , 6068.	2.2	21
40	Advancements in the co-formulation of biologic therapeutics. <i>Journal of Controlled Release</i> , 2020, 327, 397-405.	4.8	21
41	Human airway smooth muscle maintain in situ cell orientation and phenotype when cultured on aligned electrospun scaffolds. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2014, 307, L38-L47.	1.3	20
42	Optically excited nanoscale ultrasonic transducers. <i>Journal of the Acoustical Society of America</i> , 2015, 137, 219-227.	0.5	20
43	Electrochemical communication with the inside of cells using micro-patterned vertical carbon nanofibre electrodes. <i>Scientific Reports</i> , 2016, 6, 37672.	1.6	19
44	Comparative transcriptomics of the nematode gut identifies global shifts in feeding mode and pathogen susceptibility. <i>BMC Research Notes</i> , 2016, 9, 142.	0.6	19
45	Tailoring the Electrochemical Properties of Carbon Nanotube Modified Indium Tin Oxide via <i>in Situ</i> Grafting of Aryl Diazonium. <i>Langmuir</i> , 2017, 33, 4924-4933.	1.6	19
46	Fluorescent nanosensors reveal dynamic pH gradients during biofilm formation. <i>Npj Biofilms and Microbiomes</i> , 2021, 7, 50.	2.9	19
47	Investigating the Dissolution Performance of Amorphous Solid Dispersions Using Magnetic Resonance Imaging and Proton NMR. <i>Molecules</i> , 2015, 20, 16404-16418.	1.7	17
48	Prediction of the enhanced insulin absorption across a triple co-cultured intestinal model using mucus penetrating PLGA nanoparticles. <i>International Journal of Pharmaceutics</i> , 2020, 585, 119516.	2.6	17
49	Porphyrin-nanosensor conjugates. New tools for the measurement of intracellular response to reactive oxygen species. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 801-811.	1.6	16
50	Switching of Macromolecular Ligand Display by Thermoresponsive Polymers Mediates Endocytosis of Multiconjugate Nanoparticles. <i>Bioconjugate Chemistry</i> , 2018, 29, 1030-1046.	1.8	16
51	Combining Inkjet Printing and Sol-Gel Chemistry for Making pH-Sensitive Surfaces. <i>Current Topics in Medicinal Chemistry</i> , 2015, 15, 271-278.	1.0	16
52	Development of a SERS strategy to overcome the nanoparticle stabilisation effect in serum-containing samples: Application to the quantification of dopamine in the culture medium of PC-12 cells. <i>Talanta</i> , 2018, 186, 8-16.	2.9	15
53	Adapting the Electrospinning Process to Provide Three Unique Environments for a Tri-layered <i>In Vitro</i> Model of the Airway Wall. <i>Journal of Visualized Experiments</i> , 2015, , e52986.	0.2	14
54	Enhanced distance-dependent fluorescence quenching using size tuneable core shell silica nanoparticles. <i>RSC Advances</i> , 2018, 8, 35840-35848.	1.7	13

#	ARTICLE	IF	CITATIONS
55	Immunity in Space: Prokaryote Adaptations and Immune Response in Microgravity. <i>Life</i> , 2021, 11, 112.	1.1	13
56	Design and fabrication of nanoscale ultrasonic transducers. <i>Journal of Physics: Conference Series</i> , 2012, 353, 012001.	0.3	12
57	Correlating Physicochemical Properties of Boronic Acid-Chitosan Conjugates to Glucose Adsorption Sensitivity. <i>Pharmaceutics</i> , 2013, 5, 69-80.	2.0	12
58	Electrospun gelatin-based scaffolds as a novel 3D platform to study the function of contractile smooth muscle cells <i>in vitro</i> . <i>Biomedical Physics and Engineering Express</i> , 2018, 4, 045039.	0.6	12
59	Confocal Raman Microscope Mapping of a Kofler Melt. <i>Crystal Growth and Design</i> , 2011, 11, 422-430.	1.4	11
60	An appraisal of the Suzuki cross-coupling reaction for the synthesis of novel fluorescent coumarin derivatives. <i>Tetrahedron Letters</i> , 2014, 55, 5521-5524.	0.7	11
61	Facile Dye-Initiated Polymerization of Lactide-Glycolide Generates Highly Fluorescent Poly(lactic-co-glycolic Acid) for Enhanced Characterization of Cellular Delivery. <i>ACS Macro Letters</i> , 2020, 9, 431-437.	2.3	11
62	Nano-in-Micro Self-Reporting Hydrogel Constructs. <i>Journal of Biomedical Nanotechnology</i> , 2015, 11, 1451-1460.	0.5	10
63	Modelling protein therapeutic co-formulation and co-delivery with PLGA nanoparticles continuously manufactured by microfluidics. <i>Reaction Chemistry and Engineering</i> , 2020, 5, 308-319.	1.9	10
64	Internalisation of polymeric nanosensors in mesenchymal stem cells: Analysis by flow cytometry and confocal microscopy. <i>Journal of Controlled Release</i> , 2008, 130, 115-120.	4.8	8
65	Quadruple labelled dual oxygen and pH-sensitive ratiometric nanosensors. <i>Sensing and Bio-Sensing Research</i> , 2016, 8, 36-42.	2.2	8
66	Pebble Nanosensors for Real Time Intracellular Chemical Imaging. , 2002, , 497-536.		6
67	The physicochemical fingerprint of <i>Necator americanus</i> . <i>PLoS Neglected Tropical Diseases</i> , 2017, 11, e0005971.	1.3	6
68	Intracellular processing of silica-coated superparamagnetic iron nanoparticles in human mesenchymal stem cells. <i>RSC Advances</i> , 2019, 9, 3176-3184.	1.7	6
69	Advanced polymeric nanotechnology to augment therapeutic delivery and disease diagnosis. <i>Nanomedicine</i> , 2020, 15, 2287-2309.	1.7	6
70	Molecular Formula Prediction for Chemical Filtering of 3D OrbiSIMS Datasets. <i>Analytical Chemistry</i> , 2022, 94, 4703-4711.	3.2	6
71	Electrospun PLGA fibre sheets incorporating fluorescent nanosensors: self-reporting scaffolds for application in tissue engineering. <i>Analytical Methods</i> , 2013, 5, 68-71.	1.3	5
72	Gold-Oligonucleotide Nanoconstructs Engineered to Detect Conserved Enteroviral Nucleic Acid Sequences. <i>Biosensors</i> , 2021, 11, 238.	2.3	5

#	ARTICLE	IF	CITATIONS
73	Effect of Excipients on Salt Disproportionation during Dissolution: A Novel Application of In Situ Raman Imaging. <i>Molecular Pharmaceutics</i> , 2021, 18, 3247-3259.	2.3	5
74	CHOTs optical transducers. <i>Nondestructive Testing and Evaluation</i> , 2011, 26, 353-366.	1.1	4
75	Tuning the conformation of synthetic co-polypeptides of serine and glutamic acid through control over polymer composition. <i>Journal of Polymer Science Part A</i> , 2016, 54, 2331-2336.	2.5	4
76	Self-reporting Scaffolds for 3-Dimensional Cell Culture. <i>Journal of Visualized Experiments</i> , 2013, , e50608.	0.2	3
77	<title>Development of oxygen and pH optical sensors using phase modulation technique</title>. , 1999, , .		2
78	Control of aggregation temperatures in mixed and blended cytocompatible thermoresponsive block co-polymer nanoparticles. <i>Soft Matter</i> , 2017, 13, 7441-7452.	1.2	2
79	Sound of nano. , 2013, , .		0
80	Facile approach to generating polymeric nanoarrays containing populations of nanoparticles. <i>Micro and Nano Letters</i> , 2015, 10, 378-383.	0.6	0