

# Jonathan W Aylott

## List of Publications by Year in descending order

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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	Molecular Formula Prediction for Chemical Filtering of 3D OrbiSIMS Datasets. <i>Analytical Chemistry</i> , 2022, 94, 4703-4711.	3.2	6
2	Immunity in Space: Prokaryote Adaptations and Immune Response in Microgravity. <i>Life</i> , 2021, 11, 112.	1.1	13
3	Fluorescent nanosensors reveal dynamic pH gradients during biofilm formation. <i>Npj Biofilms and Microbiomes</i> , 2021, 7, 50.	2.9	19
4	Goldâ€“Oligonucleotide Nanoconstructs Engineered to Detect Conserved Enteroviral Nucleic Acid Sequences. <i>Biosensors</i> , 2021, 11, 238.	2.3	5
5	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
6	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
7	Advancements in the co-formulation of biologic therapeutics. <i>Journal of Controlled Release</i> , 2020, 327, 397-405.	4.8	21
8	Protein identification by 3D OrbiSIMS to facilitate in situ imaging and depth profiling. <i>Nature Communications</i> , 2020, 11, 5832.	5.8	40
9	Advanced polymeric nanotechnology to augment therapeutic delivery and disease diagnosis. <i>Nanomedicine</i> , 2020, 15, 2287-2309.	1.7	6
10	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
11	Facile Dye-Initiated Polymerization of Lactideâ€“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
12	Rapid scale-up and production of active-loaded PEGylated liposomes. <i>International Journal of Pharmaceutics</i> , 2020, 586, 119566.	2.6	27
13	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
14	Intracellular processing of silica-coated superparamagnetic iron nanoparticles in human mesenchymal stem cells. <i>RSC Advances</i> , 2019, 9, 3176-3184.	1.7	6
15	New generation of bioreactors that advance extracellular matrix modelling and tissue engineering. <i>Biotechnology Letters</i> , 2019, 41, 1-25.	1.1	77
16	Switching of Macromolecular Ligand Display by Thermoresponsive Polymers Mediates Endocytosis of Multiconjugate Nanoparticles. <i>Bioconjugate Chemistry</i> , 2018, 29, 1030-1046.	1.8	16
17	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
18	Enhanced distance-dependent fluorescence quenching using size tuneable core shell silica nanoparticles. <i>RSC Advances</i> , 2018, 8, 35840-35848.	1.7	13

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19	Electrospun gelatin-based scaffolds as a novel 3D platform to study the function of contractile smooth muscle cells <i>in vitro</i> . Biomedical Physics and Engineering Express, 2018, 4, 045039.	0.6	12
20	Real-time measurement of the intracellular pH of yeast cells during glucose metabolism using ratiometric fluorescent nanosensors. Nanoscale, 2017, 9, 5904-5911.	2.8	25
21	Tailoring the Electrochemical Properties of Carbon Nanotube Modified Indium Tin Oxide via <i>In Situ</i> Grafting of Aryl Diazonium. Langmuir, 2017, 33, 4924-4933.	1.6	19
22	Control of aggregation temperatures in mixed and blended cytocompatible thermoresponsive block co-polymer nanoparticles. Soft Matter, 2017, 13, 7441-7452.	1.2	2
23	The physicochemical fingerprint of <i>Necator americanus</i> . PLoS Neglected Tropical Diseases, 2017, 11, e0005971.	1.3	6
24	Electrochemical communication with the inside of cells using micro-patterned vertical carbon nanofibre electrodes. Scientific Reports, 2016, 6, 37672.	1.6	19
25	Quadruple labelled dual oxygen and pH-sensitive ratiometric nanosensors. Sensing and Bio-Sensing Research, 2016, 8, 36-42.	2.2	8
26	Tuning the conformation of synthetic co-polypeptides of serine and glutamic acid through control over polymer composition. Journal of Polymer Science Part A, 2016, 54, 2331-2336.	2.5	4
27	Comparative transcriptomics of the nematode gut identifies global shifts in feeding mode and pathogen susceptibility. BMC Research Notes, 2016, 9, 142.	0.6	19
28	Indomethacin-Kollidon VA64 Extrudates: A Mechanistic Study of pH-Dependent Controlled Release. Molecular Pharmaceutics, 2016, 13, 1166-1175.	2.3	32
29	Nano-in-Micro Self-Reporting Hydrogel Constructs. Journal of Biomedical Nanotechnology, 2015, 11, 1451-1460.	0.5	10
30	Facile approach to generating polymeric nanoarrays containing populations of nanoparticles. Micro and Nano Letters, 2015, 10, 378-383.	0.6	0
31	Adapting the Electrospinning Process to Provide Three Unique Environments for a Tri-layered <i>In Vitro</i> Model of the Airway Wall. Journal of Visualized Experiments, 2015, , e52986.	0.2	14
32	Investigating the Dissolution Performance of Amorphous Solid Dispersions Using Magnetic Resonance Imaging and Proton NMR. Molecules, 2015, 20, 16404-16418.	1.7	17
33	Investigating NF- $\kappa$ B signaling in lung fibroblasts in 2D and 3D culture systems. Respiratory Research, 2015, 16, 144.	1.4	28
34	Optically excited nanoscale ultrasonic transducers. Journal of the Acoustical Society of America, 2015, 137, 219-227.	0.5	20
35	Controlled intracellular generation of reactive oxygen species in human mesenchymal stem cells using porphyrin conjugated nanoparticles. Nanoscale, 2015, 7, 14525-14531.	2.8	23
36	Monitoring the Dissolution Mechanisms of Amorphous Bicalutamide Solid Dispersions via Real-Time Raman Mapping. Molecular Pharmaceutics, 2015, 12, 1512-1522.	2.3	26

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37	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
38	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
39	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
40	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
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	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
43	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
44	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
45	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
46	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
47	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
48	Sound of nano. , 2013, , .		0
49	Self-reporting Scaffolds for 3-Dimensional Cell Culture. <i>Journal of Visualized Experiments</i> , 2013, , e50608.	0.2	3
50	Correlating Physicochemical Properties of Boronic Acid-Chitosan Conjugates to Glucose Adsorption Sensitivity. <i>Pharmaceutics</i> , 2013, 5, 69-80.	2.0	12
51	Fluorescent nanosensors for intracellular measurements: synthesis, characterization, calibration, and measurement. <i>Frontiers in Physiology</i> , 2013, 4, 401.	1.3	23
52	Design and fabrication of nanoscale ultrasonic transducers. <i>Journal of Physics: Conference Series</i> , 2012, 353, 012001.	0.3	12
53	Orthogonally bifunctionalised polyacrylamide nanoparticles: a support for the assembly of multifunctional nanodevices. <i>Nanoscale</i> , 2012, 4, 2034.	2.8	27
54	Protease sensing with nanoparticle based platforms. <i>Analyst</i> , The, 2011, 136, 29-41.	1.7	61

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55	Confocal Raman Microscope Mapping of a Kofler Melt. <i>Crystal Growth and Design</i> , 2011, 11, 422-430.	1.4	11
56	CHOTs optical transducers. <i>Nondestructive Testing and Evaluation</i> , 2011, 26, 353-366.	1.1	4
57	Dual-fluorophore ratiometric pH nanosensor with tuneable pKa and extended dynamic range. <i>Analyst, The</i> , 2011, 136, 1799.	1.7	58
58	Thermoresponsive Polymer Colloids for Drug Delivery and Cancer Therapy. <i>Macromolecular Bioscience</i> , 2011, 11, 1722-1734.	2.1	90
59	Dual fluorescent labelling of cellulose nanocrystals for pH sensing. <i>Chemical Communications</i> , 2010, 46, 8929.	2.2	206
60	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
61	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
62	A facile method to clickable sensing polymeric nanoparticles. <i>Chemical Communications</i> , 2009, , 6601.	2.2	36
63	Facile synthesis of responsive nanoparticles with reversible, tunable and rapid thermal transitions from biocompatible constituents. <i>Chemical Communications</i> , 2009, , 6068.	2.2	21
64	Protease responsive nanoprobe with tethered fluorogenic peptidyl 3-aryl coumarin substrates. <i>Chemical Communications</i> , 2009, , 671-673.	2.2	22
65	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
66	The delivery of PEBBLE nanosensors to measure the intracellular environment. <i>Biochemical Society Transactions</i> , 2007, 35, 538-543.	1.6	30
67	An optical sensor for reactive oxygen species: encapsulation of functionalised silica nanoparticles into silicate nanoprobe to reduce fluorophore leaching. <i>Analyst, The</i> , 2007, 133, 71-75.	1.7	27
68	Optical calcium sensors: development of a generic method for their introduction to the cell using conjugated cell penetrating peptides. <i>Analyst, The</i> , 2005, 130, 163.	1.7	39
69	Optical nanosensors – an enabling technology for intracellular measurements. <i>Analyst, The</i> , 2003, 128, 309-312.	1.7	132
70	A non-invasive analysis method for on-chip spectrophotometric detection using liquid-core waveguiding within a 3D architecture. <i>Analyst, The</i> , 2003, 128, 1336.	1.7	29
71	Integrated organic light-emitting device/fluorescence-based chemical sensors. <i>Applied Physics Letters</i> , 2002, 81, 4652-4654.	1.5	57
72	Fluorescent nano-PEBBLE sensors designed for intracellular glucose imaging. <i>Analyst, The</i> , 2002, 127, 1471-1477.	1.7	133

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73	A fluorescent PEBBLE nanosensor for intracellular free zinc. <i>Analyst, The</i> , 2002, 127, 11-16.	1.7	147
74	Pebble Nanosensors for Real Time Intracellular Chemical Imaging. , 2002, , 497-536.		6
75	A Real-Time Ratiometric Method for the Determination of Molecular Oxygen Inside Living Cells Using Solâˆ“Gel-Based Spherical Optical Nanosensors with Applications to Rat C6 Glioma. <i>Analytical Chemistry</i> , 2001, 73, 4124-4133.	3.2	324
76	<title>Development of oxygen and pH optical sensors using phase modulation technique</title>. , 1999, , .		2
77	Optical biosensing of nitric oxide using the metalloprotein cytochrome câ€². <i>Analyst, The</i> , 1999, 124, 129-134.	1.7	28
78	Optical Biosensing of Gaseous Nitric Oxide Using Spin-Coated Solâˆ“Gel Thin Films. <i>Chemistry of Materials</i> , 1997, 9, 2261-2263.	3.2	54
79	Optical Biosensing of Nitrate Ions Using a Solâ€“Gel Immobilized Nitrate Reductase. <i>Analyst, The</i> , 1997, 122, 77-80.	1.7	89
80	Solâ€“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