

# Jonathan W Aylott

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

2,369  
citations

24  
h-index

46  
g-index

83  
ext. papers

2,666  
ext. citations

5.4  
avg, IF

4.91  
L-index

#	Paper	IF	Citations
80	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> , <b>2001</b> , 73, 4124-33	7.8	294
79	Dual fluorescent labelling of cellulose nanocrystals for pH sensing. <i>Chemical Communications</i> , <b>2010</b> , 46, 8929-31	5.8	185
78	A fluorescent PEBBLE nanosensor for intracellular free zinc. <i>Analyst, The</i> , <b>2002</b> , 127, 11-6	5	128
77	Fluorescent nano-PEBBLE sensors designed for intracellular glucose imaging. <i>Analyst, The</i> , <b>2002</b> , 127, 1471-7	5	121
76	Optical nanosensors--an enabling technology for intracellular measurements. <i>Analyst, The</i> , <b>2003</b> , 128, 309-12	5	110
75	Sol-gel encapsulation of metalloproteins for the development of optical biosensors for nitrogen monoxide and carbon monoxide. <i>Analyst, The</i> , <b>1995</b> , 120, 2725-2730	5	84
74	Thermoresponsive polymer colloids for drug delivery and cancer therapy. <i>Macromolecular Bioscience</i> , <b>2011</b> , 11, 1722-34	5.5	79
73	Optical Biosensing of Nitrate Ions Using a Sol-gel Immobilized Nitrate Reductase. <i>Analyst, The</i> , <b>1997</b> , 122, 77-80	5	79
72	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> , <b>2013</b> , 7, 5577-87	16.7	70
71	Protease sensing with nanoparticle based platforms. <i>Analyst, The</i> , <b>2011</b> , 136, 29-41	5	58
70	Enhanced uptake of nanoparticle drug carriers via a thermoresponsive shell enhances cytotoxicity in a cancer cell line. <i>Biomaterials Science</i> , <b>2013</b> , 1, 434-442	7.4	55
69	Immunocompetent 3D model of human upper airway for disease modeling and in vitro drug evaluation. <i>Molecular Pharmaceutics</i> , <b>2014</b> , 11, 2082-91	5.6	53
68	Dual-fluorophore ratiometric pH nanosensor with tuneable pKa and extended dynamic range. <i>Analyst, The</i> , <b>2011</b> , 136, 1799-801	5	52
67	Real time Raman imaging to understand dissolution performance of amorphous solid dispersions. <i>Journal of Controlled Release</i> , <b>2014</b> , 188, 53-60	11.7	50
66	New generation of bioreactors that advance extracellular matrix modelling and tissue engineering. <i>Biotechnology Letters</i> , <b>2019</b> , 41, 1-25	3	50
65	Optical Biosensing of Gaseous Nitric Oxide Using Spin-Coated Sol-gel Thin Films. <i>Chemistry of Materials</i> , <b>1997</b> , 9, 2261-2263	9.6	49
64	Integrated organic light-emitting device/fluorescence-based chemical sensors. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 4652-4654	3.4	47

63	Thermo-optical characterization of fluorescent rhodamine B based temperature-sensitive nanosensors using a CMOS MEMS micro-hotplate. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 192, 126-133	8.5	42
62	Using microfluidics for scalable manufacturing of nanomedicines from bench to GMP: A case study using protein-loaded liposomes. <i>International Journal of Pharmaceutics</i> , <b>2020</b> , 582, 119266	6.5	37
61	Optical calcium sensors: development of a generic method for their introduction to the cell using conjugated cell penetrating peptides. <i>Analyst, The</i> , <b>2005</b> , 130, 163-70	5	37
60	A facile method to clickable sensing polymeric nanoparticles. <i>Chemical Communications</i> , <b>2009</b> , 6601-3	5.8	33
59	Optical biosensing of nitric oxide using the metalloprotein cytochrome cU <i>Analyst, The</i> , <b>1999</b> , 124, 129-34	5	27
58	A novel electrospun biphasic scaffold provides optimal three-dimensional topography for in vitro co-culture of airway epithelial and fibroblast cells. <i>Biofabrication</i> , <b>2014</b> , 6, 035014	10.5	26
57	Orthogonally bifunctionalised polyacrylamide nanoparticles: a support for the assembly of multifunctional nanodevices. <i>Nanoscale</i> , <b>2012</b> , 4, 2034-45	7.7	24
56	The delivery of PEBBLE nanosensors to measure the intracellular environment. <i>Biochemical Society Transactions</i> , <b>2007</b> , 35, 538-43	5.1	24
55	An optical sensor for reactive oxygen species: encapsulation of functionalised silica nanoparticles into silicate nanopores to reduce fluorophore leaching. <i>Analyst, The</i> , <b>2008</b> , 133, 71-5	5	24
54	A non-invasive analysis method for on-chip spectrophotometric detection using liquid-core waveguiding within a 3D architecture. <i>Analyst, The</i> , <b>2003</b> , 128, 1336-40	5	23
53	Using fluorescent pH-sensitive nanosensors to report their intracellular location after Tat-mediated delivery. <i>Integrative Biology (United Kingdom)</i> , <b>2009</b> , 1, 318-23	3.7	22
52	Controlled intracellular generation of reactive oxygen species in human mesenchymal stem cells using porphyrin conjugated nanoparticles. <i>Nanoscale</i> , <b>2015</b> , 7, 14525-31	7.7	21
51	Monitoring the Dissolution Mechanisms of Amorphous Bicalutamide Solid Dispersions via Real-Time Raman Mapping. <i>Molecular Pharmaceutics</i> , <b>2015</b> , 12, 1512-22	5.6	21
50	Indomethacin-Kollidon VA64 Extrudates: A Mechanistic Study of pH-Dependent Controlled Release. <i>Molecular Pharmaceutics</i> , <b>2016</b> , 13, 1166-75	5.6	20
49	Investigating NF- $\kappa$ B signaling in lung fibroblasts in 2D and 3D culture systems. <i>Respiratory Research</i> , <b>2015</b> , 16, 144	7.3	20
48	Facile synthesis of responsive nanoparticles with reversible, tunable and rapid thermal transitions from biocompatible constituents. <i>Chemical Communications</i> , <b>2009</b> , 6068-70	5.8	20
47	Protease responsive nanopores with tethered fluorogenic peptidyl 3-aryl coumarin substrates. <i>Chemical Communications</i> , <b>2009</b> , 671-3	5.8	20
46	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> , <b>2014</b> , 13, 1039-51	4.2	19

45	Optically excited nanoscale ultrasonic transducers. <i>Journal of the Acoustical Society of America</i> , <b>2015</b> , 137, 219-27	2.2	17
44	Protein identification by 3D OrbiSIMS to facilitate in situ imaging and depth profiling. <i>Nature Communications</i> , <b>2020</b> , 11, 5832	17.4	17
43	Comparative transcriptomics of the nematode gut identifies global shifts in feeding mode and pathogen susceptibility. <i>BMC Research Notes</i> , <b>2016</b> , 9, 142	2.3	16
42	Fluorescent nanosensors for intracellular measurements: synthesis, characterization, calibration, and measurement. <i>Frontiers in Physiology</i> , <b>2013</b> , 4, 401	4.6	16
41	Porphyrin-nanosensor conjugates. New tools for the measurement of intracellular response to reactive oxygen species. <i>Photochemical and Photobiological Sciences</i> , <b>2010</b> , 9, 801-11	4.2	16
40	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> , <b>2014</b> , 307, L38-47	5.8	15
39	Investigating the Dissolution Performance of Amorphous Solid Dispersions Using Magnetic Resonance Imaging and Proton NMR. <i>Molecules</i> , <b>2015</b> , 20, 16404-18	4.8	14
38	Combining inkjet printing and sol-gel chemistry for making pH-sensitive surfaces. <i>Current Topics in Medicinal Chemistry</i> , <b>2015</b> , 15, 271-8	3	14
37	Real-time measurement of the intracellular pH of yeast cells during glucose metabolism using ratiometric fluorescent nanosensors. <i>Nanoscale</i> , <b>2017</b> , 9, 5904-5911	7.7	13
36	Switching of Macromolecular Ligand Display by Thermoresponsive Polymers Mediates Endocytosis of Multiconjugate Nanoparticles. <i>Bioconjugate Chemistry</i> , <b>2018</b> , 29, 1030-1046	6.3	13
35	Electrochemical communication with the inside of cells using micro-patterned vertical carbon nanofibre electrodes. <i>Scientific Reports</i> , <b>2016</b> , 6, 37672	4.9	13
34	Tailoring the Electrochemical Properties of Carbon Nanotube Modified Indium Tin Oxide via in Situ Grafting of Aryl Diazonium. <i>Langmuir</i> , <b>2017</b> , 33, 4924-4933	4	12
33	Rapid scale-up and production of active-loaded PEGylated liposomes. <i>International Journal of Pharmaceutics</i> , <b>2020</b> , 586, 119566	6.5	11
32	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> , <b>2018</b> , 186, 8-16	6.2	11
31	An appraisal of the Suzuki cross-coupling reaction for the synthesis of novel fluorescent coumarin derivatives. <i>Tetrahedron Letters</i> , <b>2014</b> , 55, 5521-5524	2	11
30	Adapting the Electrospinning Process to Provide Three Unique Environments for a Tri-layered In Vitro Model of the Airway Wall. <i>Journal of Visualized Experiments</i> , <b>2015</b> , e52986	1.6	10
29	Correlating physicochemical properties of boronic Acid-chitosan conjugates to glucose adsorption sensitivity. <i>Pharmaceutics</i> , <b>2012</b> , 5, 69-80	6.4	10
28	Design and fabrication of nanoscale ultrasonic transducers. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 353, 012001	0.3	10

27	Electrospun gelatin-based scaffolds as a novel 3D platform to study the function of contractile smooth muscle cells in vitro. <i>Biomedical Physics and Engineering Express</i> , <b>2018</b> , 4, 045039	1.5	8
26	Nano-in-Micro Self-Reporting Hydrogel Constructs. <i>Journal of Biomedical Nanotechnology</i> , <b>2015</b> , 11, 1451-60	4	8
25	Confocal Raman Microscope Mapping of a Kofler Melt. <i>Crystal Growth and Design</i> , <b>2011</b> , 11, 422-430	3.5	8
24	Internalisation of polymeric nanosensors in mesenchymal stem cells: analysis by flow cytometry and confocal microscopy. <i>Journal of Controlled Release</i> , <b>2008</b> , 130, 115-20	11.7	8
23	Modelling protein therapeutic co-formulation and co-delivery with PLGA nanoparticles continuously manufactured by microfluidics. <i>Reaction Chemistry and Engineering</i> , <b>2020</b> , 5, 308-319	4.9	8
22	Quadruple labelled dual oxygen and pH-sensitive ratiometric nanosensors. <i>Sensing and Bio-Sensing Research</i> , <b>2016</b> , 8, 36-42	3.3	7
21	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> , <b>2020</b> , 9, 431-437	6.6	6
20	Enhanced distance-dependent fluorescence quenching using size tuneable core shell silica nanoparticles.. <i>RSC Advances</i> , <b>2018</b> , 8, 35840-35848	3.7	6
19	Prediction of the enhanced insulin absorption across a triple co-cultured intestinal model using mucus penetrating PLGA nanoparticles. <i>International Journal of Pharmaceutics</i> , <b>2020</b> , 585, 119516	6.5	5
18	The physicochemical fingerprint of <i>Necator americanus</i> . <i>PLoS Neglected Tropical Diseases</i> , <b>2017</b> , 11, e0005971	4	5
17	Fluorescent nanosensors reveal dynamic pH gradients during biofilm formation. <i>Npj Biofilms and Microbiomes</i> , <b>2021</b> , 7, 50	8.2	5
16	Electrospun PLGA fibre sheets incorporating fluorescent nanosensors: self-reporting scaffolds for application in tissue engineering. <i>Analytical Methods</i> , <b>2013</b> , 5, 68-71	3.2	4
15	CHOTs optical transducers. <i>Nondestructive Testing and Evaluation</i> , <b>2011</b> , 26, 353-366	2	4
14	Pebble Nanosensors for Real Time Intracellular Chemical Imaging <b>2002</b> , 497-536		4
13	Advancements in the co-formulation of biologic therapeutics. <i>Journal of Controlled Release</i> , <b>2020</b> , 327, 397-405	11.7	4
12	Intracellular processing of silica-coated superparamagnetic iron nanoparticles in human mesenchymal stem cells. <i>RSC Advances</i> , <b>2019</b> , 9, 3176-3184	3.7	3
11	Immunity in Space: Prokaryote Adaptations and Immune Response in Microgravity. <i>Life</i> , <b>2021</b> , 11,	3	3
10	Self-reporting scaffolds for 3-dimensional cell culture. <i>Journal of Visualized Experiments</i> , <b>2013</b> , e50608	1.6	2

9	Advanced polymeric nanotechnology to augment therapeutic delivery and disease diagnosis. <i>Nanomedicine</i> , <b>2020</b> , 15, 2287-2309	5.6	2
8	Gold-Oligonucleotide Nanoconstructs Engineered to Detect Conserved Enteroviral Nucleic Acid Sequences. <i>Biosensors</i> , <b>2021</b> , 11,	5.9	2
7	Control of aggregation temperatures in mixed and blended cytocompatible thermoresponsive block co-polymer nanoparticles. <i>Soft Matter</i> , <b>2017</b> , 13, 7441-7452	3.6	1
6	Development of oxygen and pH optical sensors using phase modulation technique <b>1999</b> ,		1
5	Effect of Excipients on Salt Disproportionation during Dissolution: A Novel Application of In Situ Raman Imaging. <i>Molecular Pharmaceutics</i> , <b>2021</b> , 18, 3247-3259	5.6	1
4	Molecular Formula Prediction for Chemical Filtering of 3D OrbiSIMS Datasets.. <i>Analytical Chemistry</i> , <b>2022</b> ,	7.8	1
3	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> , <b>2016</b> , 54, 2331-2336	2.5	0
2	Facile approach to generating polymeric nanoarrays containing populations of nanoparticles. <i>Micro and Nano Letters</i> , <b>2015</b> , 10, 378-383	0.9	
1	Delivery of Nanosensors to Measure the Intracellular Environment <b>2010</b> , 15-33		