

Colette M Mcdonagh

List of Publications by Year in descending order

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119
papers

5,223
citations

94381

37
h-index

88593

70
g-index

121
all docs

121
docs citations

121
times ranked

6044
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Chemical Sensors. <i>Chemical Reviews</i> , 2008, 108, 400-422.	23.0	897
2	Optical Chemical pH Sensors. <i>Analytical Chemistry</i> , 2014, 86, 15-29.	3.2	438
3	Fibre optic oxygen sensor based on fluorescence quenching of evanescent-wave excited ruthenium complexes in sol-gel derived porous coatings. <i>Analyst, The</i> , 1993, 118, 385-388.	1.7	226
4	Inhibition of Neuroblastoma Tumor Growth by Targeted Delivery of MicroRNA-34a Using Anti-Disialoganglioside GD2 Coated Nanoparticles. <i>PLoS ONE</i> , 2012, 7, e38129.	1.1	208
5	Sol-gel based optical carbon dioxide sensor employing dual luminophore referencing for application in food packaging technology. <i>Analyst, The</i> , 2002, 127, 1478-1483.	1.7	182
6	Dissolved oxygen sensor based on fluorescence quenching of oxygen-sensitive ruthenium complexes immobilized in sol-gel-derived porous silica coatings. <i>Analyst, The</i> , 1996, 121, 785-788.	1.7	173
7	Phase fluorometric dissolved oxygen sensor. <i>Sensors and Actuators B: Chemical</i> , 2001, 74, 124-130.	4.0	173
8	Sol-gel coatings for optical chemical sensors and biosensors. <i>Sensors and Actuators B: Chemical</i> , 1995, 29, 51-57.	4.0	168
9	Characterisation of porosity and sensor response times of sol-gel-derived thin films for oxygen sensor applications. <i>Journal of Non-Crystalline Solids</i> , 2002, 306, 138-148.	1.5	125
10	Plasmonic enhancement of fluorescence for sensor applications. <i>Sensors and Actuators B: Chemical</i> , 2005, 107, 148-153.	4.0	119
11	Optimization of Nanoparticle Size for Plasmonic Enhancement of Fluorescence. <i>Plasmonics</i> , 2007, 2, 15-22.	1.8	112
12	High performance optical ratiometric sol-gel-based pH sensor. <i>Sensors and Actuators B: Chemical</i> , 2009, 139, 208-213.	4.0	106
13	Temperature-corrected pressure-sensitive paint measurements using a single camera and a dual-lifetime approach. <i>Measurement Science and Technology</i> , 2002, 13, 1552-1557.	1.4	97
14	A structural study of the sol-gel process by optical fluorescence and decay time spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 1991, 135, 8-14.	1.5	87
15	Silica nanoparticles for cell imaging and intracellular sensing. <i>Nanotechnology</i> , 2013, 24, 442002.	1.3	83
16	Development of a LED-based phase fluorimetric oxygen sensor using evanescent wave excitation of a sol-gel immobilized dye. <i>Sensors and Actuators B: Chemical</i> , 1995, 29, 226-230.	4.0	76
17	Lifetime-based optical sensor for high-level pCO ₂ detection employing fluorescence resonance energy transfer. <i>Analytica Chimica Acta</i> , 2003, 480, 275-283.	2.6	75
18	Enhanced Fluorescence Sensing Using Sol-Gel Materials. <i>Journal of Fluorescence</i> , 2002, 12, 333-342.	1.3	71

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19	LED-based fibre optic oxygen sensor using sol-gel coating. <i>Electronics Letters</i> , 1994, 30, 888.	0.5	62
20	Effect of organic chelates on the performance of hybrid sol-gel coated AA 2024-T3 aluminium alloys. <i>Progress in Organic Coatings</i> , 2009, 66, 406-411.	1.9	61
21	Development of an optical sensor probe for the detection of dissolved carbon dioxide. <i>Sensors and Actuators B: Chemical</i> , 2006, 119, 288-294.	4.0	55
22	Synthesis, Stabilization, and Functionalization of Silver Nanoplates for Biosensor Applications. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16380-16386.	1.5	54
23	Photophysics of mixed-ligand polypyridyl ruthenium(II) complexes immobilised in silica sol-gel monoliths. <i>Journal of Materials Chemistry</i> , 1997, 7, 1473-1479.	6.7	53
24	Corrosion protection of AA 2024-T3 aluminium alloys using 3, 4-diaminobenzoic acid chelated zirconium-silane hybrid sol-gels. <i>Thin Solid Films</i> , 2010, 518, 5753-5761.	0.8	52
25	An integrated centrifuge-opto-microfluidic platform for arraying, analysis, identification and manipulation of individual cells. <i>Lab on A Chip</i> , 2015, 15, 378-381.	3.1	52
26	Optical properties of high refractive index thin films processed at low-temperature. <i>Optical Materials</i> , 2012, 34, 1366-1370.	1.7	51
27	Optimization of Plasmonic Enhancement of Fluorescence on Plastic Substrates. <i>Langmuir</i> , 2008, 24, 11261-11267.	1.6	46
28	Experimental and theoretical studies of the optimisation of fluorescence from near-infrared dye-doped silica nanoparticles. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 393, 1143-1149.	1.9	46
29	Fibre optic chemical sensors based on evanescent wave interactions in sol-gel-derived porous coatings. <i>Journal of Sol-Gel Science and Technology</i> , 1994, 2, 661-665.	1.1	45
30	Novel hybrid optical sensor materials for in-breath O ₂ analysis. <i>Analyst</i> , The, 2008, 133, 241-247.	1.7	45
31	At-line bioprocess monitoring by immunoassay with rotationally controlled serial siphoning and integrated supercritical angle fluorescence optics. <i>Analytica Chimica Acta</i> , 2013, 781, 54-62.	2.6	43
32	Optical Sensor for Real-time pH Monitoring in Human Tissue. <i>Small</i> , 2018, 14, e1803627.	5.2	43
33	Surface plasmon-coupled emission (SPCE)-based immunoassay using a novel paraboloid array biochip. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1344-1349.	5.3	42
34	Enhancing the analytical performance of immunoassays that employ metal-enhanced fluorescence. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 1127-1134.	1.9	41
35	Photo-patternable hybrid ionogels for electrochromic applications. <i>Journal of Materials Chemistry</i> , 2011, 21, 8687.	6.7	39
36	Development of an integrated optic oxygen sensor using a novel, generic platform. <i>Analyst</i> , The, 2005, 130, 41-45.	1.7	38

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37	Intracellular sensing and cell diagnostics using fluorescent silica nanoparticles. <i>Soft Matter</i> , 2012, 8, 2579.	1.2	37
38	Micro- and nanostructured sol-gel-based materials for optical chemical sensing (2005-2015). <i>Mikrochimica Acta</i> , 2016, 183, 2085-2109.	2.5	36
39	Signal enhancement of surface plasmon-coupled emission (SPCE) with the evanescent field of surface plasmons on a bimetallic paraboloid biochip. <i>Biosensors and Bioelectronics</i> , 2011, 26, 3213-3218.	5.3	32
40	The development and characterisation of novel hybrid sol-gel-derived films for optical pH sensing. <i>Journal of Materials Chemistry</i> , 2012, 22, 11720.	6.7	32
41	Nanoparticle strategies for enhancing the sensitivity of fluorescence-based biochips. <i>Nanomedicine</i> , 2009, 4, 645-656.	1.7	31
42	Development of a fluorescence lifetime-based sol-gel humidity sensor. <i>Analytica Chimica Acta</i> , 2006, 570, 15-20.	2.6	30
43	Novel Multiparametric Approach to Elucidate the Surface Amine-Silanization Reaction Profile on Fluorescent Silica Nanoparticles. <i>Langmuir</i> , 2010, 26, 18125-18134.	1.6	28
44	Fabrication and performance evaluation of highly sensitive hybrid sol-gel-derived oxygen sensor films based on a fluorinated precursor. <i>Analytica Chimica Acta</i> , 2010, 666, 83-90.	2.6	27
45	Intracellular pH-Sensing Using Core/Shell Silica Nanoparticles. <i>Journal of Biomedical Nanotechnology</i> , 2014, 10, 1336-1345.	0.5	26
46	Fluorescence Lifetime Analysis and Fluorescence Correlation Spectroscopy Elucidate the Internal Architecture of Fluorescent Silica Nanoparticles. <i>Langmuir</i> , 2010, 26, 13741-13746.	1.6	24
47	Ratiometric fluorescence-based dissolved carbon dioxide sensor for use in environmental monitoring applications. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 398, 1899-1907.	1.9	24
48	Graphene-doped photo-patternable ionogels: tuning of conductivity and mechanical stability of 3D microstructures. <i>Journal of Materials Chemistry</i> , 2012, 22, 10552.	6.7	24
49	Optimization of size, morphology and colloidal stability of fluorescein dye-doped silica NPs for application in immunoassays. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 404, 2807-2818.	1.9	22
50	Synthesis and characterisation of far-red fluorescent cyanine dye doped silica nanoparticles using a modified microemulsion method for application in bioassays. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 470-479.	4.0	22
51	Cyanine5-doped silica nanoparticles as ultra-bright immunospecific labels for model circulating tumour cells in flow cytometry and microscopy. <i>Biosensors and Bioelectronics</i> , 2017, 91, 190-198.	5.3	22
52	Application of niobium enriched ormosils as thermally stable coatings for aerospace aluminium alloys. <i>Surface and Coatings Technology</i> , 2011, 205, 3992-3998.	2.2	21
53	Experimental and theoretical evaluation of surface plasmon-coupled emission for sensitive fluorescence detection. <i>Journal of Biomedical Optics</i> , 2008, 13, 054021.	1.4	20
54	Dextran-coated silica nanoparticles for calcium-sensing. <i>Analyst</i> , The, 2011, 136, 1722.	1.7	19

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55	Demonstration of a surface plasmon-coupled emission (SPCE)-based immunoassay in the absence of a spacer layer. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 398, 1947-1954.	1.9	18
56	Mid-infrared Raman sources using spontaneous Raman scattering in germanium core optical fibers. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	18
57	Investigating the colloidal stability of fluorescent silica nanoparticles under isotonic conditions for biomedical applications. <i>Journal of Colloid and Interface Science</i> , 2015, 456, 50-58.	5.0	18
58	Controlled deposition of sol-gel sensor material using hemiwicking. <i>Journal of Micromechanics and Microengineering</i> , 2011, 21, 115008.	1.5	17
59	Synthesis, tailoring and characterization of silica nanoparticles containing a highly stable ruthenium complex. <i>Nanotechnology</i> , 2013, 24, 365705.	1.3	17
60	Baking Powder Actuated Centrifugo-Pneumatic Valving for Automation of Multi-Step Bioassays. <i>Micromachines</i> , 2016, 7, 175.	1.4	17
61	A Prospective Study of the Use of the [Os(tpy) ₂] ²⁺ (tpy = 2,2',6'-Terpyridine) Core as Signalling Scaffolding for the Development of Chemical Sensors. <i>European Journal of Inorganic Chemistry</i> , 2006, 2006, 2647-2655.	1.0	16
62	Ruthenium-doped sol-gel derived silica films: Oxygen sensitivity of optical decay times. <i>Journal of Sol-Gel Science and Technology</i> , 1994, 2, 513-517.	1.1	15
63	Optical detection of magnetic resonance in MgO:Cr ³⁺ . II. Cr ³⁺ ions in tetragonal symmetry sites. <i>Journal of Physics C: Solid State Physics</i> , 1980, 13, 3309-3318.	1.5	14
64	Low loss optical channel waveguides for the infrared range using niobium based hybrid sol-gel material. <i>Optics Communications</i> , 2011, 284, 2164-2167.	1.0	13
65	Development of a multianalyte optical sol-gel biosensor for medical diagnostic. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 96-103.	4.0	13
66	Exchange interactions between Cr ³⁺ ions in magnesium oxide. III. Luminescence and site-selective spectroscopy. <i>Journal of Physics C: Solid State Physics</i> , 1985, 18, 6419-6426.	1.5	12
67	Synthesis, characterisation and functionalisation of luminescent silica nanoparticles. <i>Journal of Nanoparticle Research</i> , 2011, 13, 6455-6465.	0.8	12
68	A Camera Phone-Based UV-Dosimeter for Monitoring the Solar Disinfection (SODIS) of Water. <i>IEEE Sensors Journal</i> , 2012, 12, 1425-1426.	2.4	12
69	On the triplet state of FA(Mg) centres in calcium oxide. <i>Journal of Physics C: Solid State Physics</i> , 1978, 11, L983-L987.	1.5	11
70	Optical detection of magnetic resonance of FA and F centres in CaO:Mg. <i>Journal of Physics C: Solid State Physics</i> , 1980, 13, 5811-5822.	1.5	11
71	Optical detection of magnetic resonance in MgO:Cr ³⁺ . I. Octahedral and orthorhombic site symmetries. <i>Journal of Physics C: Solid State Physics</i> , 1980, 13, 2191-2201.	1.5	11
72	Synthesis and Characterization of a Noble Metal Enhanced Optical Nanohybrid (NEON): A High Brightness Detection Platform Based on a Dye-Doped Silica Nanoparticle. <i>Langmuir</i> , 2012, 28, 8244-8250.	1.6	11

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73	Incorporating asymmetric PCR and microarray hybridization protocols onto an integrated microfluidic device, screening for the Escherichia coli ssrA gene. Sensors and Actuators B: Chemical, 2018, 261, 325-334.	4.0	11
74	Optical detection of magnetic resonance in the vibronic sidebands of R and N lines in MgO:Cr ³⁺ . Journal of Physics C: Solid State Physics, 1980, 13, 6025-6031.	1.5	10
75	Highly sensitive detection of C-reactive protein using a novel dissolution approach in a dye-doped silica nanoparticle-based fluorescence immunoassay. Analytical Methods, 2017, 9, 994-1003.	1.3	10
76	Optical sensors for application in intelligent food-packaging technology. , 2003, 4876, 806.		9
77	Optical Properties of Micro-patterned Silver Nanoparticle Substrates. Journal of Fluorescence, 2010, 20, 215-223.	1.3	9
78	Demonstration of surface plasmon-coupled emission using solid-state electrochemiluminescence. Chemical Physics Letters, 2011, 513, 112-117.	1.2	9
79	Synthesis and characterization of model silica "gold core" shell nanohybrid systems to demonstrate plasmonic enhancement of fluorescence. Nanotechnology, 2012, 23, 325603.	1.3	9
80	Dendrimer Driven Self-Assembly of SPR Active Silver "Gold Nanohybrids. Langmuir, 2013, 29, 4430-4433.	1.6	9
81	Development of a sol-gel photonic sensor platform for the detection of biofilm formation. Sensors and Actuators B: Chemical, 2013, 177, 357-363.	4.0	9
82	From particle to platelet: Optimization of a stable, high brightness fluorescent nanoparticle based cell detection platform. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 540-549.	1.7	9
83	Biocompatibility and Bioimaging Application of Carbon Nanoparticles Synthesized by Phosphorus Pentoxide Combustion Method. Journal of Nanomaterials, 2015, 2015, 1-10.	1.5	9
84	Highly sensitive C-reactive protein (CRP) assay using metal-enhanced fluorescence (MEF). Journal of Nanoparticle Research, 2015, 17, 1.	0.8	9
85	Development of organically modified silica nanoparticles for monitoring the intracellular level of oxygen using a frequency-domain FLIM platform. RSC Advances, 2015, 5, 36938-36947.	1.7	8
86	Synthesis and characterization of monodisperse, mesoporous, and magnetic sub-micron particles doped with a near-infrared fluorescent dye. Journal of Solid State Chemistry, 2011, 184, 1545-1550.	1.4	7
87	Corrosion Protection Properties of Various Ligand Modified Organic Inorganic Hybrid Coating on AA 2024-T3. ECS Transactions, 2010, 24, 231-246.	0.3	6
88	Development and characterisation of integrated microfluidics on waveguide-based photonic platforms fabricated from hybrid materials. Microfluidics and Nanofluidics, 2011, 11, 283-296.	1.0	6
89	Label-Free Optical Characterization Methods for Detecting Amine Silanization-Driven Gold Nanoparticle Self-Assembly. Langmuir, 2011, 27, 10421-10428.	1.6	5
90	Sensing Performance of a Refractometric Optical Sensor Platform Based on Multimode Interference Couplers. IEEE Sensors Journal, 2011, 11, 3269-3275.	2.4	5

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91	Novel tantalum based photocurable hybrid sol-gel material employed in the fabrication of channel optical waveguides and three-dimensional structures. Applied Surface Science, 2011, 257, 2995-2999.	3.1	5
92	Enhanced Fluorescence-Based Optical Sensor Performance Using a Simple Optical Collection Strategy. IEEE Photonics Technology Letters, 2012, 24, 425-427.	1.3	5
93	Direct spray deposition of silver nanoparticle films for biosensing applications. RSC Advances, 2015, 5, 62836-62843.	1.7	5
94	Multivalent linkers for improved covalent binding of oligonucleotides to dye-doped silica nanoparticles. Nanotechnology, 2015, 26, 365703.	1.3	5
95	Plasmonic enhancement using core-shell nanoparticles. , 2005, 5824, 79.		4
96	A chemical quenching- and physical blocking-based method to minimize process-mediated aggregation of antibody-crosslinked nanoparticles for imaging application. Analyst, The, 2013, 138, 6277.	1.7	4
97	Circular polarised emission from F and F-centres in calcium oxide. Journal of Physics C: Solid State Physics, 1982, 15, 4913-4919.	1.5	3
98	<title>Development of an LED-based fiber optic oxygen sensor using a sol-gel-derived coating</title>. , 1994, , .		3
99	Hybrid zirconium sol-gel thin films with high refractive index. , 2011, , .		3
100	Protein Integrated, Functionally Active Silver Nanoplanar Structures for Enhanced SPR. Journal of Physical Chemistry C, 2013, 117, 3078-3083.	1.5	3
101	High efficiency ring-lens supercritical angle fluorescence (SAF) detection for optimum bioassay performance. Optics Express, 2013, 21, 22070.	1.7	3
102	Controlled surface plasmon enhanced fluorescence from 1D gold gratings via azimuth rotations. Methods and Applications in Fluorescence, 2017, 5, 015004.	1.1	3
103	Novel hybrid sol-gel materials for smart sensor windows. Proceedings of SPIE, 2005, , .	0.8	2
104	Development of a multi-analyte integrated optical sensor platform for indoor air-quality monitoring. , 2005, , .		2
105	In situ generation of plasmonic cavities for high sensitivity fluorophore and biomolecule detection. Nanoscale, 2018, 10, 18555-18564.	2.8	2
106	Plasmonic enhancement of fluorescence for sensor applications. , 2004, , .		1
107	Novel polymer platform for enhanced biochip performance. Proceedings of SPIE, 2005, , .	0.8	1
108	A rapid, topographical platelet activation assay. Analyst, The, 2013, 138, 4512.	1.7	1

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109	Optical detection of magnetic resonance of FA and F centres in CaO:Mg. Journal of Physics C: Solid State Physics, 1981, 14, 1903-1903.	1.5	0
110	Development of an intrinsic phase fluorimetric oxygen sensor using a high-intensity blue LED. , 1994, 2360, 461.		0
111	<title>Quasi-distributed fiber optic chemical sensing using telecom optical fibers</title>. , 1996, 2836, 261.		0
112	Temperature-corrected pressure-sensitive paint measurements for aerodynamic applications. , 2003, 4876, 867.		0
113	Exploiting Nanobiophotonics for Enhanced Optical Biosensor Platforms. ECS Transactions, 2009, 19, 327-330.	0.3	0
114	Eurotrode IX. Sensors and Actuators B: Chemical, 2009, 139, 1.	4.0	0
115	Luminescent nanoparticle-based intracellular sensing. , 2011, , .		0
116	Dual excitation fluorescence-based sensors for pH and dissolved carbon dioxide monitoring. , 2011, , .		0
117	Fluorescent Cy5 silica nanoparticles for cancer cell imaging. , 2015, , .		0
118	Ultrasensitive microarray bioassays using cyanine5 dye-doped silica nanoparticles. Nanotechnology, 2016, 27, 465501.	1.3	0
119	Hybrid Sol-Gel Materials for Optical Sensing Applications. World Scientific Series in Nanoscience and Nanotechnology, 2019, , 37-90.	0.1	0