Dermot Diamond

List of Publications by Year
in descending order

356 papers	16,123 citations	16450 64 h-index	26610 107 g-index
359 all docs	359 docs citations	359 times ranked	15707 citing authors

#	Article	IF	Citations
1	Glucose Sensing for Diabetes Monitoring: Recent Developments. Sensors, 2017, 17, 1866.	3.8	546
2	All-solid-state sodium-selective electrode based on a calixarene ionophore in a poly(vinyl chloride) membrane with a polypyrrole solid contact. Analytical Chemistry, 1992, 64, 2496-2501.	6.5	402
3	Smartphone-Based Simultaneous pH and Nitrite Colorimetric Determination for Paper Microfluidic Devices. Analytical Chemistry, 2014, 86, 9554-9562.	6.5	348
4	BIOTEXâ€"Biosensing Textiles for Personalised Healthcare Management. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 364-370.	3.2	274
5	Synthesis of electrochemically-reduced graphene oxide film with controllable size and thickness and its use in supercapacitor. Carbon, 2011, 49, 3488-3496.	10.3	260
6	Development of a volatile amine sensor for the monitoring of fish spoilage. Talanta, 2006, 69, 515-520.	5.5	250
7	Advances in wearable chemical sensor design for monitoring biological fluids. Sensors and Actuators B: Chemical, 2015, 211, 403-418.	7.8	249
8	Organic electrochemical transistor incorporating an ionogel as a solid state electrolyte for lactate sensing. Journal of Materials Chemistry, 2012, 22, 4440.	6.7	248
9	Chloride Selective Calix[4]arene Optical Sensor Combining Urea Functionality with Pyrene Excimer Transduction. Journal of the American Chemical Society, 2006, 128, 8607-8614.	13.7	241
10	Wireless Sensor Networks and Chemo-/Biosensing. Chemical Reviews, 2008, 108, 652-679.	47.7	233
11	Calixarene-based sensing agents. Chemical Society Reviews, 1996, 25, 15.	38.1	230
12	Screen-printed electrodes for environmental monitoring of heavy metal ions: a review. Mikrochimica Acta, 2016, 183, 503-517.	5.0	227
13	A wearable electrochemical sensor for the real-time measurement of sweat sodium concentration. Analytical Methods, 2010, 2, 342.	2.7	226
14	Comparison of soil pollution concentrations determined using AAS and portable XRF techniques. Journal of Hazardous Materials, 2009, 171, 1168-1171.	12.4	207
15	Smart Nanotextiles: A Review of Materials and Applications. MRS Bulletin, 2007, 32, 434-442.	3.5	195
16	Bio-sensing textile based patch with integrated optical detection system for sweat monitoring. Sensors and Actuators B: Chemical, 2009, 139, 231-236.	7.8	189
17	Humidity sensors based on polyaniline nanofibres. Sensors and Actuators B: Chemical, 2010, 143, 530-534.	7.8	179
18	Real-time sweat pH monitoring based on a wearable chemical barcode micro-fluidic platform incorporating ionic liquids. Sensors and Actuators B: Chemical, 2012, 171-172, 1327-1334.	7.8	174

#	Article	IF	Citations
19	Chemo/bio-sensor networks. Nature Materials, 2006, 5, 421-424.	27.5	170
20	Peer Reviewed: Calixarenes: Designer Ligands for Chemical Sensors. Analytical Chemistry, 2001, 73, 22 A-29 A.	6.5	164
21	Determination and application of ion-selective electrode model parameters using flow injection and simplex optimization. Analyst, The, 1994, 119, 749.	3.5	155
22	Absorbance Based Light Emitting Diode Optical Sensors and Sensing Devices. Sensors, 2008, 8, 2453-2479.	3.8	152
23	Development of a biosensor for endocrine disrupting compounds based on tyrosinase entrapped within a poly(thionine) film. Biosensors and Bioelectronics, 2004, 20, 367-377.	10.1	144
24	Molecular Design of Light-Responsive Hydrogels, For in Situ Generation of Fast and Reversible Valves for Microfluidic Applications. Chemistry of Materials, 2015, 27, 5925-5931.	6.7	141
25	Development and Application of Surface Plasmon Resonance-Based Biosensors for the Detection of Cellâ€"Ligand Interactions. Analytical Biochemistry, 2000, 281, 135-143.	2.4	140
26	Sodium-selective polymeric membrane electrodes based on calix[4]arene ionophores. Analyst, The, 1989, 114, 1551.	3.5	130
27	Inherently conducting polymer modified polyurethane smart foam for pressure sensing. Sensors and Actuators A: Physical, 2005, 119, 398-404.	4.1	129
28	A wearable patch for continuous monitoring of sweat electrolytes during exertion. Lab on A Chip, 2018, 18, 2632-2641.	6.0	122
29	â€˜SWEATCHâ€™: A Wearable Platform for Harvesting and Analysing Sweat Sodium Content. Electroanalysis, 2016, 28, 1283-1289.	2.9	117
30	Electrodeposition and pseudocapacitive properties of tungsten oxide/polyaniline composite. Journal of Power Sources, 2011, 196, 4842-4848.	7.8	115
31	Ion sensors: current limits and new trends. Analytica Chimica Acta, 1999, 393, 11-18.	5.4	114
32	Advances in three-dimensional rapid prototyping of microfluidic devices for biological applications. Biomicrofluidics, 2014, 8, 052112.	2.4	114
33	Design and development of a miniaturised total chemical analysis system for on-line lactate and glucose monitoring in biological samples. Analytica Chimica Acta, 1997, 346, 341-349.	5.4	110
34	Electrochemical transistors with ionic liquids for enzymatic sensing. Chemical Communications, 2010, 46, 7972.	4.1	110
35	Lead-Selective Electrodes Based on Calixarene Phosphine Oxide Derivatives. Analytical Chemistry, 1999, 71, 5544-5550.	6.5	108
36	Spiropyran based hydrogels actuatorsâ€"Walking in the light. Sensors and Actuators B: Chemical, 2017, 250, 608-616.	7.8	105

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37	Opportunities and challenges of using ion-selective electrodes in environmental monitoring and wearable sensors. Electrochimica Acta, 2012, 84, 29-34.	5.2	104
38	Caesium-selective poly(vinyl chloride) membrane electrodes based on calix[6]arene esters. Analyst, The, 1990, 115, 1207.	3.5	103
39	Photoâ€Responsive Polymeric Structures Based on Spiropyran. Macromolecular Materials and Engineering, 2012, 297, 1148-1159.	3.6	102
40	Concept and development of an autonomous wearable micro-fluidic platform for real time pH sweat analysis. Sensors and Actuators B: Chemical, 2012, 175, 263-270.	7.8	101
41	A Multiswitchable Poly(terthiophene) Bearing a Spiropyran Functionality: Understanding Photo- and Electrochemical Control. Journal of the American Chemical Society, 2011, 133, 5453-5462.	13.7	96
42	Ionogel-based light-actuated valves for controlling liquid flow in micro-fluidic manifolds. Lab on A Chip, 2010, 10, 195-201.	6.0	94
43	Optically addressable single-use microfluidic valves by laser printer lithography. Lab on A Chip, 2010, 10, 2680.	6.0	93
44	Determination of the Enantiomeric Composition of Chiral Amines Based on the Quenching of the Fluorescence of a Chiral Calixarene. Analytical Chemistry, 1996, 68, 3775-3782.	6.5	91
45	Direct Laser Writing of Four-Dimensional Structural Color Microactuators Using a Photonic Photoresist. ACS Nano, 2020, 14, 9832-9839.	14.6	89
46	Inâ€...Situ Oneâ€Step Electrochemical Preparation of Graphene Oxide Nanosheetâ€Modified Electrodes for Biosensors. ChemSusChem, 2011, 4, 1587-1591.	6.8	83
47	Self-protonating spiropyran-co-NIPAM-co-acrylic acid hydrogel photoactuators. Soft Matter, 2013, 9, 8754.	2.7	83
48	Chemical sensing using an integrated microfluidic system based on the Berthelot reaction. Sensors and Actuators B: Chemical, 2001, 76, 235-243.	7.8	81
49	Development of miniature all-solid-state potentiometric sensing system. Sensors and Actuators B: Chemical, 2010, 146, 199-205.	7.8	80
50	Fast prototyping of paper-based microfluidic devices by contact stamping using indelible ink. RSC Advances, 2013, 3, 18811.	3.6	80
51	An Electrochromic Ionic Liquid: Design, Characterization, and Performance in a Solid-State Platform. ACS Applied Materials & Interfaces, 2013, 5, 55-62.	8.0	80
52	Peer Reviewed: Internet-Scale Sensing. Analytical Chemistry, 2004, 76, 278 A-286 A.	6.5	79
53	The increasing importance of carbon nanotubes and nanostructured conducting polymers in biosensors. Analytical and Bioanalytical Chemistry, 2010, 398, 1575-1589.	3.7	79
54	A wearable sensor for the detection of sodium and potassium in human sweat during exercise. Talanta, 2020, 219, 121145.	5.5	79

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55	Photo-regenerable surface with potential for optical sensing. Journal of Materials Chemistry, 2006, 16, 1332.	6.7	77
56	Novel fused-LEDs devices as optical sensors for colorimetric analysis. Talanta, 2004, 63, 167-173.	5.5	76
57	Digital imaging as a detector for generic analytical measurements. TrAC - Trends in Analytical Chemistry, 2000, 19, 517-522.	11.4	75
58	Stimuli Responsive Ionogels for Sensing Applicationsâ€"An Overview. Membranes, 2012, 2, 16-39.	3.0	75
59	A low-cost autonomous optical sensor for water quality monitoring. Talanta, 2015, 132, 520-527.	5.5	75
60	A low-cost optical sensing device based on paired emitterâ€"detector light emitting diodes. Analytica Chimica Acta, 2006, 557, 111-116.	5.4	74
61	Spiropyran-based reversible, light-modulated sensing with reduced photofatigue. Journal of Photochemistry and Photobiology A: Chemistry, 2009, 206, 109-115.	3.9	74
62	Guidelines for Improving the Lower Detection Limit of Ion-Selective Electrodes: A Systematic Approach. Electroanalysis, 2007, 19, 144-154.	2.9	73
63	Nonlinear calibration of ion-selective electrode arrays for flow injection analysis. Analytical Chemistry, 1992, 64, 1721-1728.	6.5	68
64	Autonomous microfluidic system for phosphate detection. Talanta, 2007, 71, 1180-1185.	5.5	66
65	Spiropyran Polymeric Microcapillary Coatings for Photodetection of Solvent Polarity. Langmuir, 2013, 29, 2790-2797.	3.5	66
66	Evaluation of miniaturised solid state reference electrodes on a silicon based component. Sensors and Actuators B: Chemical, 1997, 44, 389-396.	7.8	65
67	The determination of phosphorus in a microfluidic manifold demonstrating long-term reagent lifetime and chemical stability utilising a colorimetric method. Sensors and Actuators B: Chemical, 2003, 90, 170-174.	7.8	64
68	Photoâ€Chemopropulsion â€" Lightâ€Stimulated Movement of Microdroplets. Advanced Materials, 2014, 26, 7339-7345.	21.0	64
69	Photoswitchable Ratchet Surface Topographies Based on Self-Protonating Spiropyranâ€"NIPAAM Hydrogels. ACS Applied Materials & Interfaces, 2014, 6, 7268-7274.	8.0	64
70	Light-responsive polymers for microfluidic applications. Lab on A Chip, 2018, 18, 699-709.	6.0	64
71	Dual contactless conductivity and amperometric detection on hybrid PDMS/glass electrophoresis microchips. Analyst, The, 2010, 135, 96-103.	3.5	63
72	An integrated sensing and wireless communications platform for sensing sodium in sweat. Analytical Methods, 2016, 8, 64-71.	2.7	61

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73	Modeling of potentiometric electrode arrays for multicomponent analysis. Analytical Chemistry, 1991, 63, 876-882.	6.5	60
74	Tuning and Enhancing Enantioselective Quenching of Calixarene Hosts by Chiral Guest Amines. Analytical Chemistry, 2002, 74, 59-66.	6.5	60
75	Monitoring of headspace total volatile basic nitrogen from selected fish species using reflectance spectroscopic measurements of pH sensitive films. Analyst, The, 2002, 127, 1338-1341.	3.5	60
76	Determination of phosphate using a highly sensitive paired emitterâ€"detector diode photometric flow detector. Analytica Chimica Acta, 2007, 597, 290-294.	5.4	60
77	Electrochemical synthesis of WO3/PANI composite for electrocatalytic reduction of iodate. Electrochimica Acta, 2010, 55, 3915-3920.	5.2	60
78	Fully automated, low-cost ion chromatography system for in-situ analysis of nitrite and nitrate in natural waters. Talanta, 2020, 216, 120955.	5.5	60
79	Chiral resolution of the enantiomers of phenylglycinol using (S)-di-naphthylprolinol calix[4]arene by capillary electrophoresis and fluorescence spectroscopy. Analytical Communications, 1998, 35, 123-125.	2.2	59
80	Photometric detection in flow analysis systems using integrated PEDDs. Talanta, 2005, 66, 1340-1344.	5.5	59
81	pH-controlled morphological structure of polyaniline during electrochemical deposition. Electrochimica Acta, 2009, 54, 6172-6177.	5.2	59
82	Integration of analytical measurements and wireless communicationsâ€"Current issues and future strategies. Talanta, 2008, 75, 606-612.	5.5	58
83	Monitoring chemical plumes in an environmental sensing chamber with a wireless chemical sensor network. Sensors and Actuators B: Chemical, 2007, 121, 142-149.	7.8	57
84	Optical sensing system based on wireless paired emitter detector diode device and ionogels for lab-on-a-disc water quality analysis. Lab on A Chip, 2012, 12, 5069.	6.0	57
85	A portable centrifugal analyser for liver function screening. Biosensors and Bioelectronics, 2014, 56, 352-358.	10.1	57
86	Fabrication of soft, stimulus-responsive structures with sub-micron resolution via two-photon polymerization of poly(ionic liquid)s. Materials Today, 2018, 21, 807-816.	14.2	57
87	Optical Sensor for Gaseous Ammonia With Tuneable Sensitivity. Analyst, The, 1997, 122, 803-806.	3.5	56
88	Modular microfluidic valve structures based on reversible thermoresponsive ionogel actuators. Lab on A Chip, 2014, 14, 3530-3538.	6.0	55
89	A potentiometric disposable sensor strip for measuring pH in saliva. Electrochimica Acta, 2014, 132, 292-296.	5.2	55
90	Solid-state ammonia sensor based on Berthelotâ€™s reaction. Sensors and Actuators B: Chemical, 2004, 98, 12-17.	7.8	54

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91	Polystyrene bead-based system for optical sensing using spiropyran photoswitches. Journal of Materials Chemistry, 2008, 18, 5063.	6.7	54
92	Textile-Based Wearable Sensors for Assisting Sports Performance. , 2009, , .		54
93	Monitoring of volatile bases in fish sample headspace using an acidochromic dye. Food Chemistry, 2000, 69, 97-103.	8.2	53
94	Towards autonomous environmental monitoring systems. Talanta, 2002, 56, 355-363.	5.5	53
95	Point-of-need diagnosis of cystic fibrosis using a potentiometric ion-selective electrode array. Analyst, The, 2000, 125, 2264-2267.	3.5	52
96	Portable integrated microfluidic analytical platform for the monitoring and detection of nitrite. Talanta, 2013, 116, 997-1004.	5.5	52
97	Improved nitrate sensing using ion selective electrodes based on ureaâ€"calixarene ionophores. New Journal of Chemistry, 2007, 31, 587-592.	2.8	51
98	Ionic Liquidâ€Based, Liquidâ€Junctionâ€Free Reference Electrode. Electroanalysis, 2011, 23, 1881-1890.	2.9	51
99	Thermoresponsive poly(ionic liquid) hydrogels. Chemical Communications, 2013, 49, 10308.	4.1	51
100	Thermal reversion of spirooxazine in ionic liquids containing the [NTf2]â^’ anion. Physical Chemistry Chemical Physics, 2009, 11, 5608.	2.8	49
101	Dynamic pH mapping in microfluidic devices by integrating adaptive coatings based on polyaniline with colorimetric imaging techniques. Lab on A Chip, 2013, 13, 1079.	6.0	49
102	A Wearable Device for Monitoring Sweat Rates via Image Analysis. IEEE Transactions on Biomedical Engineering, 2016, 63, 1672-1680.	4.2	49
103	Challenges and opportunities in wearable technology for biochemical analysis in sweat. Current Opinion in Electrochemistry, 2017, 3, 46-50.	4.8	49
104	Moving Droplets in 3D Using Light. Advanced Materials, 2018, 30, e1801821.	21.0	49
105	Big data and machine learning for materials science. Discover Materials, 2021, 1, 12.	2.8	49
106	Performance characteristics of a polypyrrole modified polydimethylsiloxane (PDMS) membrane based microfluidic pump. Sensors and Actuators A: Physical, 2008, 148, 239-244.	4.1	46
107	Photo- and solvatochromic properties of nitrobenzospiropyran in ionic liquids containing the [NTf2]â^’ anion. Physical Chemistry Chemical Physics, 2008, 10, 5919.	2.8	46
108	Disposable solid-contact ion-selective electrodes for environmental monitoring of lead with ppb limit-of-detection. Electrochimica Acta, 2012, 73, 93-97.	5.2	46

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109	Neural network based recognition of flow injection patterns. Analyst, The, 1993, 118, 347.	3.5	45
110	An Autonomous Microfluidic Sensor for Phosphate: On-Site Analysis of Treated Wastewater. IEEE Sensors Journal, 2008, 8, 508-515.	4.7	45
111	Synthesis and characterisation of spiropyran-polymer brushes in micro-capillaries: Towards an integrated optical sensor for continuous flow analysis. Sensors and Actuators B: Chemical, 2012, 175, 92-99.	7.8	45
112	Biomimetic, low power pumps based on soft actuators. Sensors and Actuators A: Physical, 2007, 135, 229-235.	4.1	44
113	Evaluation of Liquidâ€•and Solidâ€Contact, Pb²⁺â€Selective Polymerâ€Membrane Electrodes for Soil Analysis. Electroanalysis, 2008, 20, 340-346.	2.9	44
114	Materials science and the sensor revolution. Materials Today, 2010, 13, 16-23.	14.2	44
115	The development of an autonomous sensing platform for the monitoring of ammonia in water using a simplified Berthelot method. Analytical Methods, 2014, 6, 7606-7614.	2.7	44
116	Diagnostic of functionality of polymer membrane â€" based ion selective electrodes by impedance spectroscopy. Analytical Methods, 2010, 2, 1490.	2.7	43
117	Ion selective electrodes in environmental analysis. Journal of the Serbian Chemical Society, 2013, 78, 1729-1761.	0.8	43
118	Quantitative colorimetric analysis of dye mixtures using an optical photometer based on LED array. Sensors and Actuators B: Chemical, 2006, 114, 819-825.	7.8	42
119	Wearable Platform for Realâ€time Monitoring of Sodium in Sweat. ChemPhysChem, 2018, 19, 1531-1536.	2.1	42
120	Evaluation of a low cost wireless chemical sensor network for environmental monitoring. , 2008, , .		41
121	Calixarenes as active agents for chemical sensors. Sensors and Actuators B: Chemical, 1991, 4, 325-331.	7.8	40
122	LED switching of spiropyran-doped polymer films. Journal of Materials Science, 2006, 41, 5841-5844.	3.7	40
123	Photonic modulation of surface properties: a novel concept in chemical sensing. Journal Physics D: Applied Physics, 2007, 40, 7238-7244.	2.8	40
124	Precision control of flow rate in microfluidic channels using photoresponsive soft polymer actuators. Lab on A Chip, 2017, 17, 2013-2021.	6.0	40
125	Robust estimation of selectivity coefficients using multivariate calibration of ion-selective electrode arrays. Analytica Chimica Acta, 1993, 276, 75-86.	5.4	39
126	Inkjet printed LED based pH chemical sensor for gas sensing. Analytica Chimica Acta, 2009, 652, 308-314.	5.4	39

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127	Photo-patternable hybrid ionogels for electrochromic applications. Journal of Materials Chemistry, 2011, 21, 8687.	6.7	39
128	Autonomous reagent-based microfluidic pH sensor platform. Sensors and Actuators B: Chemical, 2016, 225, 369-376.	7.8	39
129	Enantioselective molecular sensing of aromatic amines using tetra-(S)-di-2-naphthylprolinol calix[4]arene. Analyst, The, 2001, 126, 1063-1067.	3.5	38
130	Spiropyran modified micro-fluidic chip channels as photonically controlled self-indicating system for metal ion accumulation and release. Sensors and Actuators B: Chemical, 2009, 140, 295-303.	7.8	38
131	Characterisation and analytical potential of a photo-responsive polymeric material based on spiropyran. Biosensors and Bioelectronics, 2010, 26, 1392-1398.	10.1	38
132	Swelling and shrinking behaviour of photoresponsive phosphonium-based ionogel microstructures. Sensors and Actuators B: Chemical, 2014, 194, 105-113.	7.8	38
133	Integrated 3D printed heaters for microfluidic applications: Ammonium analysis within environmental water. Analytica Chimica Acta, 2020, 1098, 94-101.	5.4	38
134	Sodium-selective electrodes based on triester monoacid derivatives of p-tert-butylcalix[4]arene. Comparison with tetraester calix[4]arene ionophores. Analytica Chimica Acta, 1996, 336, 1-12.	5.4	37
135	Pump Less Wearable Microfluidic Device for Real Time pH Sweat Monitoring. Procedia Chemistry, 2009, 1, 1103-1106.	0.7	37
136	CMAS: fully integrated portable centrifugal microfluidic analysis system for on-site colorimetric analysis. RSC Advances, 2013, 3, 15928.	3.6	37
137	Evaluation of a new solid-state reference electrode junction material for ion-selective electrodes. Electroanalysis, 1994, 6, 962-971.	2.9	36
138	An improved Na+â€selective microelectrode for intracellular measurements in plant cells. Journal of Experimental Botany, 2001, 52, 1353-1359.	4.8	36
139	Low pressure ion chromatography with a low cost paired emitterâ€"detector diode based detector for the determination of alkaline earth metals in water samples. Analytica Chimica Acta, 2006, 577, 32-37.	5.4	36
140	Trace-Level Determination of Cs+ Using Membrane-Based Ion-Selective Electrodes. Electroanalysis, 2006, 18, 1379-1388.	2.9	36
141	Novel chromogenic ligands for lithium and sodium based on calix[4]arene tetraesters. Journal of the Chemical Society Chemical Communications, 1992, , 1287.	2.0	35
142	Development of a low cost microfluidic sensor for the direct determination of nitrate using chromotropic acid in natural waters. Analytical Methods, 2015, 7, 5396-5405.	2.7	35
143	Ionic liquid modulation of swelling and LCST behavior of N-isopropylacrylamide polymer gels. Physical Chemistry Chemical Physics, 2014, 16, 3610.	2.8	33
144	Tuning microfluidic flow by pulsed light oscillating spiropyran-based polymer hydrogel valves. Sensors and Actuators B: Chemical, 2017, 245, 81-86.	7.8	33

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145	Calixarene-based sensing agents. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 1994, 19, 149-166.	1.6	32
146	Assessment of a chromogenic calix[4]arene for the rapid colorimetric detection of trimethylamine. Journal of Materials Chemistry, 1994, 4, 217.	6.7	32
147	Ion-selective optode membranes using 9-(4-diethylamino-2-octadecanoatestyryl)-acridine acidochromic dye. Analytica Chimica Acta, 1999, 398, 1-11.	5.4	32
148	Separation of transition metals on a poly-iminodiacetic acid grafted polymeric resin column with post-column reaction detection utilising a paired emitterâ€"detector diode system. Journal of Chromatography A, 2008, 1213, 31-36.	3.7	32
149	Synthesis and characterisation of controllably functionalised polyaniline nanofibres. Synthetic Metals, 2009, 159, 741-748.	3.9	32
150	Investigating Nanostructuring within Imidazolium Ionic Liquids: A Thermodynamic Study Using Photochromic Molecular Probes. Journal of Physical Chemistry B, 2009, 113, 15589-15596.	2.6	32
151	Textile sensors to measure sweat pH and sweat-rate during exercise. , 2009, , .		32
152	Novel integrated paired emitter-detector diode (PEDD) as a miniaturized photometric detector in HPLC. Analyst, The, 2006, 131, 938.	3.5	31
153	Controlled Transport of Droplets Using Conducting Polymers. Langmuir, 2009, 25, 11137-11141.	3.5	31
154	Self-propelled chemotactic ionic liquid droplets. Chemical Communications, 2015, 51, 2342-2344.	4.1	31
155	Porous self-protonating spiropyran-based NIPAAm gels with improved reswelling kinetics. Journal of Materials Science, 2016, 51, 1392-1399.	3.7	31
156	Water based-ionic liquid carbon dioxide sensor for applications in the food industry. Sensors and Actuators B: Chemical, 2017, 253, 302-309.	7.8	31
157	Low cost 235 nm ultra-violet light-emitting diode-based absorbance detector for application in a portable ion chromatography system for nitrite and nitrate monitoring. Journal of Chromatography A, 2019, 1603, 8-14.	3.7	31
158	Electrochemical codeposition of nickel oxide and polyaniline. Journal of Solid State Electrochemistry, 2010, 14, 1-7.	2.5	30
159	Progress in sensor array research. Electroanalysis, 1993, 5, 795-802.	2.9	29
160	A novel calix[4]arene tetraester with fluorescent response to complexation with alkali metal cations. Journal of the Chemical Society Chemical Communications, 1993, , 480-483.	2.0	29
161	Electrochemically-induced fluid movement using polypyrrole. Synthetic Metals, 2005, 151, 60-64.	3.9	29
162	Paired emitter-detector light emitting diodes for the measurement of lead(II) and cadmium(II). Analytica Chimica Acta, 2006, 569, 221-226.	5.4	29

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163	Increased response/recovery lifetimes and reinforcement of polyaniline nanofiber films using carbon nanotubes. Carbon, 2012, 50, 1447-1454.	10.3	29
164	Probing the specific ion effects of biocompatible hydrated choline ionic liquids on lactate oxidase biofunctionality in sensor applications. Physical Chemistry Chemical Physics, 2014, 16, 1841-1849.	2.8	29
165	Enhanced Antifouling Properties of Carbohydrate Coated Poly(ether sulfone) Membranes. ACS Applied Materials & Interfaces, 2015, 7, 17238-17246.	8.0	29
166	Xurography actuated valving for centrifugal flow control. Lab on A Chip, 2016, 16, 3454-3459.	6.0	29
167	Assessment of three azophenol calix[4]arenes as chromogenic ligands for optical detection of alkali metal ions. Analyst, The, 1993, 118, 1127.	3.5	28
168	Comparison of the analytical capabilities of an amperometric and an optical sensor for the determination of nitrate in river and well water. Analytica Chimica Acta, 1994, 299, 81-90.	5.4	28
169	Ammonium detection using an ion-selective electrode array in flow-injection analysis. Electroanalysis, 1994, 6, 9-16.	2.9	28
170	Voltammetric Detection for Capillary Electrophoresis. Analytical Chemistry, 1997, 69, 2994-3001.	6.5	28
171	CO2 laser microfabrication of an integrated polymer microfluidic manifold for the determination of phosphorus. Lab on A Chip, 2003, 3, 221.	6.0	28
172	Web-based real-time temperature monitoring of shellfish catches using a wireless sensor network. Sensors and Actuators A: Physical, 2005, 122, 222-230.	4.1	28
173	Portable X-Ray Fluorescence as a Rapid Technique for Surveying Elemental Distributions in Soil. Spectroscopy Letters, 2013, 46, 516-526.	1.0	28
174	A liquid-junction-free reference electrode based on a PEDOT solid-contact and ionogel capping membrane. Talanta, 2014, 125, 58-64.	5.5	28
175	A prototype industrial sensing system for phosphorus based on micro system technology. Analyst, The, 2002, 127, 1-4.	3.5	27
176	Analysis of river water samples utilising a prototype industrial sensing system for phosphorus based on micro-system technology. Journal of Environmental Monitoring, 2002, 4, 767-771.	2.1	27
177	Swelling and Shrinking Properties of Thermo-Responsive Polymeric Ionic Liquid Hydrogels with Embedded Linear pNIPAAM. International Journal of Molecular Sciences, 2014, 15, 5337-5349.	4.1	27
178	Poly(Ionic Liquid) Semi-Interpenetrating Network Multi-Responsive Hydrogels. Sensors, 2016, 16, 219.	3.8	27
179	Poly(ionic liquid) thermo-responsive hydrogel microfluidic actuators. Sensors and Actuators B: Chemical, 2017, 247, 749-755.	7.8	27
180	Driving flows in microfluidic paper-based analytical devices with a cholinium based poly(ionic liquid) hydrogel. Sensors and Actuators B: Chemical, 2018, 261, 372-378.	7.8	27

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181	In Vitro Optimisation of a Microdialysis System With Potential for On-line Monitoring of Lactate and Glucose in Biological Samples. Analyst, The, 1997, 122, 185-189.	3.5	26
182	Assessment of sodium-selective ion-selective electrodes based on methyl ketone derivative ofp-tert-butylcalix[4]arene. Electroanalysis, 1991, 3, 371-375.	2.9	25
183	Solid-state sodium-selective sensors based on screen-printed Ag/AgCl reference electrodes. Electroanalysis, 1997, 9, 1318-1324.	2.9	25
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