Ian D Mckelvie

List of Publications by Year
in descending order

102	5,142	94269 37	91712 69
papers	citations	h-index	g-index

108	108	108	4684
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inositol phosphates in the environment. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 449-469.	1.8	617
2	The molybdenum blue reaction for the determination of orthophosphate revisited: Opening the black box. Analytica Chimica Acta, 2015, 890, 60-82.	2.6	270
3	Characterisation of water-extractable soil organic phosphorus by phosphatase hydrolysis. Soil Biology and Biochemistry, 2002, 34, 27-35.	4.2	211
4	Developments of microfluidic paper-based analytical devices (Î¼PADs) for water analysis: A review. Talanta, 2018, 177, 176-190.	2.9	194
5	Microfluidic Paper-Based Analytical Device for the Determination of Nitrite and Nitrate. Analytical Chemistry, 2014, 86, 7274-7279.	3.2	177
6	Characterisation and quantification of organic phosphorus and organic nitrogen components in aquatic systems: A Review. Analytica Chimica Acta, 2008, 624, 37-58.	2.6	156
7	Sampling, sample treatment and quality assurance issues for the determination of phosphorus species in natural waters and soils. Talanta, 2005, 66, 273-293.	2.9	155
8	Potential contribution of lysed bacterial cells to phosphorus solubilisation in two rewetted Australian pasture soils. Soil Biology and Biochemistry, 2003, 35, 187-189.	4.2	143
9	Determination of phosphorus in natural waters: A historical review. Analytica Chimica Acta, 2016, 918, 8-20.	2.6	136
10	Determination of carbon, phosphorus, nitrogen and silicon species in waters. Analytica Chimica Acta, 1994, 287, 147-190.	2.6	132
11	Dissolved organic phosphorus speciation in the waters of the Tamar estuary (SW England). Geochimica Et Cosmochimica Acta, 2009, 73, 1027-1038.	1.6	99
12	Applications of everyday IT and communications devices in modern analytical chemistry: A review. Talanta, 2015, 136, 84-94.	2.9	92
13	Adsorption of natural organic matter onto goethite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 89, 1-13.	2.3	91
14	Development of a Gas-Diffusion Microfluidic Paper-Based Analytical Device (Î¼PAD) for the Determination of Ammonia in Wastewater Samples. Analytical Chemistry, 2015, 87, 4621-4626.	3.2	91
15	Flow injection analysis as a tool for enhancing oceanographic nutrient measurementsâ€"A review. Analytica Chimica Acta, 2013, 803, 15-40.	2.6	89
16	Combined Gel Probes for the In Situ Determination of Dissolved Reactive Phosphorus in Porewaters and Characterization of Sediment Reactivity. Environmental Science & Technology, 2008, 42, 5112-5117.	4.6	86
17	Analytical perspective. Techniques for the quantification and speciation of phosphorus in natural waters. Analytical Proceedings, 1995, 32, 437.	0.4	85
18	Colorimetric detection based on localised surface plasmon resonance of gold nanoparticles: Merits, inherent shortcomings and future prospects. Talanta, 2016, 152, 410-422.	2.9	82

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19	Seawater induced release and transformation of organic and inorganic phosphorus from river sediments. Water Research, 2004, 38, 688-692.	5.3	80
20	A paper-based device for measurement of reactive phosphate in water. Talanta, 2012, 100, 454-460.	2.9	76
21	Analytical challenges and advantages of using flow-based methodologies for ammonia determination in estuarine and marine waters. TrAC - Trends in Analytical Chemistry, 2014, 59, 83-92.	5.8	70
22	Spectrophotometric determination of dissolved organic phosphorus in natural waters using in-line photo-oxidation and flow injection. Analyst, The, 1989, 114, 1459.	1.7	66
23	A compact flow injection analysis system for surface mapping of phosphate in marine waters. Talanta, 2002, 58, 1043-1053.	2.9	65
24	A Protocol to Assess the Enzymatic Release of Dissolved Organic Phosphorus Species in Waters under Environmentally Relevant Conditions. Environmental Science & Technology, 2007, 41, 7479-7485.	4.6	63
25	Multi-reflection photometric flow cell for use in flow injection analysis of estuarine waters. Analytica Chimica Acta, 2003, 499, 81-89.	2.6	61
26	Elimination of the Schlieren effect in the determination of reactive phosphorus in estuarine waters by flow-injection analysis. Analytica Chimica Acta, 1997, 351, 265-271.	2.6	60
27	Field measurement of nitrate in marine and estuarine waters with a flow analysis system utilizing on-line zinc reduction. Talanta, 2011, 84, 98-103.	2.9	60
28	Evaluation of on-line preconcentration and flow-injection amperometry for phosphate determination in fresh and marine waters. Talanta, 2005, 66, 461-466.	2.9	55
29	Determination of total phosphorus in waters and wastewaters by on-line UV/thermal induced digestion and flow injection analysis. Analytica Chimica Acta, 1996, 326, 29-39.	2.6	54
30	Flow Analysis Techniques for Spatial and Temporal Measurement of Nutrients in Aquatic Systems. Environmental Chemistry, 2006, 3, 3.	0.7	53
31	Determination of alkaline phosphataseâ€hydrolyzable phosphorus in natural water systems by enzymatic flow injection. Limnology and Oceanography, 1994, 39, 1993-2000.	1.6	49
32	Development of a micro-distillation microfluidic paper-based analytical device as a screening tool for total ammonia monitoring in freshwaters. Analytica Chimica Acta, 2019, 1079, 120-128.	2.6	45
33	The case for the use of unrefined natural reagents in analytical chemistryâ€"A green chemical perspective. Analytical Methods, 2010, 2, 1651.	1.3	41
34	Whole-stream phosphorus release studies: variation in uptake length with initial phosphorus concentration. Hydrobiologia, 1992, 235-236, 573-584.	1.0	40
35	The use of a polymer inclusion membrane for separation and preconcentration of orthophosphate in flow analysis. Analytica Chimica Acta, 2013, 803, 82-90.	2.6	40
36	Flow-injection technique for the determination of low levels of phosphorus in natural waters. Analytica Chimica Acta, 1990, 234, 409-416.	2.6	39

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37	Determination of total phosphorus in waters and wastewaters by on-line microwave-induced digestion and flow-injection analysis. Analytica Chimica Acta, 1994, 291, 233-242.	2.6	39
38	Determination of dissolved inorganic carbon (DIC) and dissolved organic carbon (DOC) in freshwaters by sequential injection spectrophotometry with on-line UV photo-oxidation. Analytica Chimica Acta, 2005, 554, 17-24.	2.6	39
39	Gold, an alternative to platinum group metals in automobile catalytic converters. Gold Bulletin, 2011, 44, 145-153.	1.1	39
40	Use of immobilized 3-phytase and flow injection for the determination of phosphorus species in natural waters. Analytica Chimica Acta, 1995, 316, 277-289.	2.6	37
41	Flow analysis methods for the direct ultra-violet spectrophotometric measurement of nitrate and total nitrogen in freshwaters. Analytica Chimica Acta, 2011, 704, 116-122.	2.6	37
42	Pervaporation-flow injection with chemiluminescence detection for determination of iodide in multivitamin tablets. Talanta, 2007, 72, 626-633.	2.9	35
43	Characterization of immobilized Escherichia coli alkaline phosphatase reactors in flow injection analysis. Analytical Chemistry, 1993, 65, 3053-3060.	3.2	34
44	Spectrophotometric Determination of Ammonia in Estuarine Waters by Hybrid Reagentâ€Injection Gasâ€Diffusion Flow Analysis. Spectroscopy Letters, 2006, 39, 737-753.	0.5	34
45	A compact portable flow analysis system for the rapid determination of total phosphorus in estuarine and marine waters. Analytica Chimica Acta, 2010, 674, 117-122.	2.6	34
46	Development of a flow method for the determination of phosphate in estuarine and freshwatersâ€"Comparison of flow cells in spectrophotometric sequential injection analysis. Analytica Chimica Acta, 2011, 701, 15-22.	2.6	34
47	Determination of iodide by detection of iodine using gas-diffusion flow injection and chemiluminescence. Talanta, 2005, 65, 756-761.	2.9	33
48	Sensitive and ultra-fast determination of arsenic(III) by gas-diffusion flow injection analysis with chemiluminescence detection. Analytica Chimica Acta, 2007, 583, 72-77.	2.6	33
49	Separation and detection of condensed phosphates in waste waters by ion chromatography coupled with flow injection. Analyst, The, 1996, 121, 1089.	1.7	32
50	Evaluation and Application of a Paper-Based Device for the Determination of Reactive Phosphate in Soil Solution. Journal of Environmental Quality, 2014, 43, 1081-1085.	1.0	32
51	Analysis of total dissolved nitrogen in natural waters by on-line photooxidation and flow injection. Analytica Chimica Acta, 1994, 293, 155-162.	2.6	31
52	Rapid determination of dissolved organic phosphorus in soil leachates and runoff waters by flow injection analysis with on-line photo-oxidation. Talanta, 1997, 45, 47-55.	2.9	30
53	Influence of Natural Organic Matter on the Sorption of Biocides onto Goethite, II. Glyphosate. Environmental Technology (United Kingdom), 1997, 18, 781-794.	1.2	29
54	Speciation of dissolved phosphorus in environmental samples by gel filtration and flow-injection analysis. Talanta, 1993, 40, 1981-1993.	2.9	28

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55	Determination of Dissolved Reactive Phosphorus in Estuarine Waters Using a Reversed Flow Injection Manifoldâ€. Analyst, The, 1997, 122, 1477-1480.	1.7	28
56	Hydrolysis of triphosphate from detergents in a rural waste water system. Water Research, 2001, 35, 448-454.	5.3	28
57	Gravitational field-flow fractionation in combination with flow injection analysis or electrothermal AAS for size based iron speciation of particles. Talanta, 2002, 58, 1375-1383.	2.9	28
58	Sensitive flow-injection technique for the determination of dissolved organic carbon in natural and waste waters. Analytica Chimica Acta, 1992, 261, 287-294.	2.6	27
59	Determination of carbon dioxide in gaseous samples by gas diffusion-flow injection. Talanta, 2004, 62, 631-636.	2.9	26
60	Spectrophotometric determination of iodate in iodised salt by flow injection analysis. Food Chemistry, 2011, 129, 704-707.	4.2	26
61	An enzymatic flow analysis method for the determination of phosphatidylcholine in sediment pore waters and extracts. Talanta, 2005, 66, 445-452.	2.9	25
62	Determination of dissolved reactive phosphorus (DRP) and dissolved organic phosphorus (DOP) in natural waters by the use of rapid sequenced reagent injection flow analysis. Talanta, 2005, 66, 453-460.	2.9	25
63	A versatile total internal reflection photometric detection cell for flow analysis. Talanta, 2009, 79, 830-835.	2.9	25
64	Determination of trace levels of ammonia in marine waters using a simple environmentally-friendly ammonia (SEA) analyser. Marine Chemistry, 2017, 194, 133-145.	0.9	23
65	Characterization of natural organic matter from four Victorian freshwater systems. Marine and Freshwater Research, 1991, 42, 675.	0.7	22
66	The use of on-line UV photoreduction in the flow analysis determination of dissolved reactive phosphate in natural waters. Talanta, 2015, 133, 155-161.	2.9	21
67	Phosphorus speciation, burial and regeneration in coastal lagoon sediments of the Gippsland Lakes (Victoria, Australia). Environmental Chemistry, 2007, 4, 334.	0.7	19
68	Monitoring of dissolved reactive phosphorus in wastewaters by flow injection analysis. Part 1. Method development and validation. Water Research, 1996, 30, 1959-1964.	5.3	17
69	The role of alkalinity generation in controlling the fluxes of CO₂ during exposure and inundation on tidal flats. Biogeosciences, 2012, 9, 4087-4097.	1.3	17
70	Rapid underway profiling of water quality in Queensland estuaries. Marine Pollution Bulletin, 2005, 51, 113-118.	2.3	16
71	Underway determination of dissolved inorganic carbon in estuarine waters by gas-diffusion flow analysis with C4D detection. Analytical Methods, 2012, 4, 1278.	1.3	15
72	Dual flow-injection analysis system for determining bromide and reactive phosphorus in natural waters. Analytica Chimica Acta, 1993, 282, 379-388.	2.6	14

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73	A reverse-flow injection analysis method for the determination of dissolved oxygen in fresh and marine waters. Talanta, 2002, 58, 1285-1291.	2.9	13
74	Gas-diffusion-based passive sampler for ammonia monitoring in marine waters. Talanta, 2018, 181, 52-56.	2.9	13
75	Whole-stream phosphorus release studies: variation in uptake length with initial phosphorus concentration. , 1992, , 573-584.		13
76	Monitoring of dissolved reactive phosphorus in wastewaters by flow injection analysis. Part 2. On-line monitoring system. Water Research, 1996, 30, 1965-1971.	5.3	11
77	Determination of hydrogen peroxide in natural waters by stopped-flow injection analysis with chemiluminescence detection. Laboratory Robotics and Automation, 2000, 12, 149-156.	0.3	11
78	On-line Removal of Sulfide Interference in Phosphate Determination by Flow Injection Analysis. Environmental Chemistry, 2006, 3, 19.	0.7	11
79	Underway determination of alkalinity in estuarine waters by reagent-injection gas-diffusion flow analysis. Talanta, 2008, 77, 533-540.	2.9	11
80	Sedimentary pools of phosphorus in the eutrophic Tamar estuary (SW England). Journal of Environmental Monitoring, 2010, 12, 296-304.	2.1	11
81	A Novel Technique for the Preâ€Concentration and Extraction of Inositol Hexakisphosphate from Soil Extracts with Determination by Phosphorusâ€31 Nuclear Magnetic Resonance. Journal of Environmental Quality, 2002, 31, 466-470.	1.0	10
82	Temporal variability in nutrient concentrations and loads in the River Tamar and its catchment (SW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.3	10
83	Pervaporation-flow injection analysis of phenol after on-line derivatisation to phenyl acetate. Analytica Chimica Acta, 2003, 485, 37-42.	2.6	9
84	Principles of Flow Injection Analysis. Comprehensive Analytical Chemistry, 2008, , 81-109.	0.7	9
85	Application of Electrospun Gas Diffusion Nanofibreâ€membranes in the Determination of Dissolved Carbon Dioxide. Macromolecular Materials and Engineering, 2013, 298, 590-596.	1.7	9
86	Enzymatic flow-injection determination of phytase-hydrolysable phosphorus (PHP) in natural waters using immobilized 3-phytase. International Journal of Environmental Analytical Chemistry, 2008, 88, 91-101.	1.8	7
87	More with less: Advances in flow and paper-based monitoring of nutrients in aquatic systems. Pure and Applied Chemistry, 2012, 84, 1973-1982.	0.9	7
88	Sampling design for total and filterable reactive phosphorus monitoring in a lowland stream: considerations of spatial variability, measurement uncertainty and statistical power. Journal of Environmental Monitoring, 2001, 3, 463-468.	2.1	6
89	Development of a gas diffusion probe for the rapid measurement of pCO2 in aquatic samples. Analytica Chimica Acta, 2011, 691, 1-5.	2.6	6
90	The nature of the salt error in the Sn(II)-reduced molybdenum blue reaction for determination of dissolved reactive phosphorus in saline waters. Analytica Chimica Acta, 2015, 896, 120-127.	2.6	6

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91	Real-time instrumentation for monitoring water quality: An Australian perspective. TrAC - Trends in Analytical Chemistry, 1993, 12, 403-412.	5.8	5
92	Influence of Natural Organic Matter on the Sorption of Biocides onto Goethite, I. Î³-BHC and Atrazine. Environmental Technology (United Kingdom), 1997, 18, 769-779.	1.2	5
93	Photometry. Comprehensive Analytical Chemistry, 2008, 54, 311-342.	0.7	5
94	Advances in marine analytical chemistry. Talanta, 2019, 202, 610.	2.9	5
95	Monitoring of ammonia in marine waters using a passive sampler with biofouling resistance and neural network-based calibration. Environmental Pollution, 2020, 267, 115457.	3.7	4
96	Environmental Applications: Waters, Sediments and Soils. Comprehensive Analytical Chemistry, 2008, 54, 685-760.	0.7	3
97	How did flow injection analysis, and its related techniques, develop in various parts of the globe? Reflections of prominent FIA practitioners. Talanta, 2011, 84, 1200-1204.	2.9	2
98	Preface. Talanta, 2005, 66, 271-272.	2.9	1
99	Historical developments in the determination of phosphorus in natural waters. Analytica Chimica Acta, 2020, 1132, 156.	2.6	1
100	A novel technique for the pre-concentration and extraction of inositol hexakisphosphate from soil extracts with determination by phosphorus-31 nuclear magnetic resonance. Journal of Environmental Quality, 2002, 31, 466-70.	1.0	1
101	Phosphates. Food Additives, 2007, , .	0.1	0
102	Editorial. Talanta, 2015, 140, vi-vii.	2.9	0