Leon P Barron

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	A year-long study of the spatial occurrence and relative distribution of pharmaceutical residues in sewage effluent, receiving marine waters and marine bivalves. Science of the Total Environment, 2014, 476-477, 317-326.	8.0	198
2	A review of the pharmaceutical exposome in aquatic fauna. Environmental Pollution, 2018, 239, 129-146.	7.5	189
3	DNA methylation-based forensic age prediction using artificial neural networks and next generation sequencing. Forensic Science International: Genetics, 2017, 28, 225-236.	3.1	170
4	Illicit and pharmaceutical drug consumption estimated via wastewater analysis. Part A: Chemical analysis and drug use estimates. Science of the Total Environment, 2014, 487, 629-641.	8.0	164
5	Spatioâ€ŧemporal assessment of illicit drug use at large scale: evidence from 7 years of international wastewater monitoring. Addiction, 2020, 115, 109-120.	3.3	154
6	lon chromatography-mass spectrometry: A review of recent technologies and applications in forensic and environmental explosives analysis. Analytica Chimica Acta, 2014, 806, 27-54.	5.4	128
7	Predicting sorption of pharmaceuticals and personal care products onto soil and digested sludge using artificial neural networks. Analyst, The, 2009, 134, 663.	3.5	105
8	Suspect screening of large numbers of emerging contaminants in environmental waters using artificial neural networks for chromatographic retention time prediction and high resolution mass spectrometry data analysis. Science of the Total Environment, 2015, 538, 934-941.	8.0	96
9	Multi-residue determination of pharmaceuticals in sludge and sludge enriched soils using pressurized liquid extraction, solid phase extraction and liquid chromatography with tandem mass spectrometry. Journal of Environmental Monitoring, 2008, 10, 353.	2.1	92
10	Comparative measurement and quantitative risk assessment of alcohol consumption through wastewater-based epidemiology: An international study in 20 cities. Science of the Total Environment, 2016, 565, 977-983.	8.0	85
11	Multi-year inter-laboratory exercises for the analysis of illicit drugs and metabolites in wastewater: Development of a quality control system. TrAC - Trends in Analytical Chemistry, 2018, 103, 34-43.	11.4	85
12	Biomonitoring of pesticides, pharmaceuticals and illicit drugs in a freshwater invertebrate to estimate toxic or effect pressure. Environment International, 2019, 129, 595-606.	10.0	83
13	DNA methylation-based age prediction using massively parallel sequencing data and multiple machine learning models. Forensic Science International: Genetics, 2018, 37, 215-226.	3.1	81
14	Evaluation of combined sewer overflow impacts on short-term pharmaceutical and illicit drug occurrence in a heavily urbanised tidal river catchment (London, UK). Science of the Total Environment, 2019, 657, 1099-1111.	8.0	61
15	Prediction of bioconcentration factors in fish and invertebrates using machine learning. Science of the Total Environment, 2019, 648, 80-89.	8.0	60
16	Pharmaceuticals in the freshwater invertebrate, Gammarus pulex, determined using pulverised liquid extraction, solid phase extraction and liquid chromatography–tandem mass spectrometry. Science of the Total Environment, 2015, 511, 153-160.	8.0	59
17	Suspect screening and quantification of trace organic explosives in wastewater using solid phase extraction and liquid chromatography-high resolution accurate mass spectrometry. Journal of Hazardous Materials, 2017, 329, 11-21.	12.4	56
18	High-throughput multi-residue quantification of contaminants of emerging concern in wastewaters enabled using direct injection liquid chromatography-tandem mass spectrometry. Journal of Hazardous Materials, 2020, 398, 122933.	12.4	56

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19	Using ion chromatography to monitor haloacetic acids in drinking water: a review of current technologies. Journal of Chromatography A, 2004, 1046, 1-9.	3.7	55
20	Simultaneous determination of trace oxyhalides and haloacetic acids using suppressed ion chromatography-electrospray mass spectrometry. Talanta, 2006, 69, 621-630.	5.5	55
21	Prediction of Chromatographic Retention Time in High-Resolution Anti-Doping Screening Data Using Artificial Neural Networks. Analytical Chemistry, 2013, 85, 10330-10337.	6.5	54
22	The determination of pharmaceutical residues in cooked and uncooked marine bivalves using pressurised liquid extraction, solid-phase extraction and liquid chromatography–tandem mass spectrometry. Analytical and Bioanalytical Chemistry, 2013, 405, 9509-9521.	3.7	52
23	Gradient liquid chromatographic retention time prediction for suspect screening applications: A critical assessment of a generalised artificial neural network-based approach across 10 multi-residue reversed-phase analytical methods. Talanta, 2016, 147, 261-270.	5.5	51
24	Artificial neural network modelling of pharmaceutical residue retention times in wastewater extracts using gradient liquid chromatography-high resolution mass spectrometry data. Journal of Chromatography A, 2015, 1396, 34-44.	3.7	46
25	Determination of urinary thiocyanate and nitrate using fast ion-interaction chromatography. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2002, 767, 175-180.	2.3	39
26	The First Attempt at Non-Linear in Silico Prediction of Sampling Rates for Polar Organic Chemical Integrative Samplers (POCIS). Environmental Science & Technology, 2016, 50, 7973-7981.	10.0	38
27	Determination of haloacetic acids in drinking water using suppressed micro-bore ion chromatography with solid phase extraction. Analytica Chimica Acta, 2004, 522, 153-161.	5.4	36
28	Targeted metabolomics of Gammarus pulex following controlled exposures to selected pharmaceuticals in water. Science of the Total Environment, 2016, 562, 777-788.	8.0	36
29	Machine Learning for Environmental Toxicology: A Call for Integration and Innovation. Environmental Science & Technology, 2018, 52, 12953-12955.	10.0	34
30	Use of temperature programming to improve resolution of inorganic anions, haloacetic acids and oxyhalides in drinking water by suppressed ion chromatography. Journal of Chromatography A, 2005, 1072, 207-215.	3.7	33
31	Progressing the analysis of Improvised Explosive Devices: Comparative study for trace detection of explosive residues in handprints by Raman spectroscopy and liquid chromatography. Talanta, 2016, 161, 219-227.	5.5	33
32	Separation of transition metals on a poly-iminodiacetic acid grafted polymeric resin column with post-column reaction detection utilising a paired emitter–detector diode system. Journal of Chromatography A, 2008, 1213, 31-36.	3.7	32
33	Rapid on-line preconcentration and suppressed micro-bore ion chromatography of part per trillion levels of perchlorate in rainwater samples. Analytica Chimica Acta, 2006, 567, 127-134.	5.4	31
34	Uptake, biotransformation and elimination of selected pharmaceuticals in a freshwater invertebrate measured using liquid chromatography tandem mass spectrometry. Chemosphere, 2017, 183, 389-400.	8.2	31
35	Assessing the reliability of uptake and elimination kinetics modelling approaches for estimating bioconcentration factors in the freshwater invertebrate, Gammarus pulex. Science of the Total Environment, 2016, 547, 396-404.	8.0	30
36	The transportation, transformation and (bio)accumulation of pharmaceuticals in the terrestrial ecosystem. Science of the Total Environment, 2021, 781, 146684.	8.0	30

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37	Double gradient ion chromatography using short monolithic columns modified with a long chained zwitterionic carboxybetaine surfactant. Journal of Chromatography A, 2006, 1109, 111-119.	3.7	27
38	Probing gunshot residue, sweat and latent human fingerprints with capillary-scale ion chromatography and suppressed conductivity detection. Analyst, The, 2012, 137, 1576.	3.5	26
39	Suspect screening of halogenated carboxylic acids in drinking water using ion exchange chromatography – high resolution (Orbitrap) mass spectrometry (IC-HRMS). Talanta, 2018, 178, 57-68.	5.5	24
40	Improved determination of femtogram-level organic explosives in multiple matrices using dual-sorbent solid phase extraction and liquid chromatography-high resolution accurate mass spectrometry. Talanta, 2019, 203, 65-76.	5.5	24
41	Holistic visualisation of the multimodal transport and fate of twelve pharmaceuticals in biosolid enriched topsoils. Analytical and Bioanalytical Chemistry, 2010, 397, 287-296.	3.7	23
42	Organic solvent and temperature-enhanced ion chromatography-high resolution mass spectrometry for the determination of low molecular weight organic and inorganic anions. Analytica Chimica Acta, 2015, 865, 83-91.	5.4	22
43	Multicompartment and cross-species monitoring of contaminants of emerging concern in an estuarine habitat. Environmental Pollution, 2021, 270, 116300.	7.5	22
44	Quantitative profile–profile relationship (QPPR) modelling: a novel machine learning approach to predict and associate chemical characteristics of unspent ammunition from gunshot residue (GSR). Analyst, The, 2019, 144, 1128-1139.	3.5	19
45	Environmental monitoring of urban streams using a primary fish gill cell culture system (FIGCS). Ecotoxicology and Environmental Safety, 2015, 120, 279-285.	6.0	18
46	A pilot wastewaterâ€based epidemiology assessment of anabolic steroid use in Queensland, Australia. Drug Testing and Analysis, 2019, 11, 937-949.	2.6	17
47	Rapid direct analysis of river water and machine learning assisted suspect screening of emerging contaminants in passive sampler extracts. Analytical Methods, 2021, 13, 595-606.	2.7	17
48	Quantitative Assessment of Dietary (Poly)phenol Intake: A High-Throughput Targeted Metabolomics Method for Blood and Urine Samples. Journal of Agricultural and Food Chemistry, 2021, 69, 537-554.	5.2	17
49	Using ion chromatography to monitor haloacetic acids in drinking water: a review of current technologies. Journal of Chromatography A, 2004, 1046, 1-9.	3.7	16
50	Trace multi-class organic explosives analysis in complex matrices enabled using LEGO®-inspired clickable 3D-printed solid phase extraction block arrays. Journal of Chromatography A, 2020, 1629, 461506.	3.7	15
51	Untargeted metabolomics changes on Gammarus pulex induced by propranolol, triclosan, and nimesulide pharmaceutical drugs. Chemosphere, 2020, 260, 127479.	8.2	15
52	Characterisation of gunshot residue from three ammunition types using suppressed anion exchange chromatography. Forensic Science International, 2012, 221, 50-56.	2.2	14
53	Residues from low-order energetic materials: The comparative performance of a range of sampling approaches prior to analysis by ion chromatography. Forensic Science International, 2013, 233, 55-62.	2.2	14
54	Detection of anionic energetic material residues in enhanced fingermarks on porous and non-porous surfaces using ion chromatography. Forensic Science International, 2013, 231, 150-156.	2.2	14

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#	Article	IF	CITATIONS
55	Quantitative Determination and Environmental Risk Assessment of 102 Chemicals of Emerging Concern in Wastewater-Impacted Rivers Using Rapid Direct-Injection Liquid Chromatography—Tandem Mass Spectrometry. Molecules, 2021, 26, 5431.	3.8	13
56	Targeted and non-targeted forensic profiling of black powder substitutes and gunshot residue using gradient ion chromatography – high resolution mass spectrometry (IC-HRMS). Analytica Chimica Acta, 2019, 1072, 1-14.	5.4	12
57	Sorbent Film-Coated Passive Samplers for Explosives Vapour Detection Part A: Materials Optimisation and Integration with Analytical Technologies. Scientific Reports, 2018, 8, 5815.	3.3	10
58	A miniaturized passive sampling-based workflow for monitoring chemicals of emerging concern in water. Science of the Total Environment, 2022, 839, 156260.	8.0	10
59	Renewable sorbent material for solid phase extraction with direct coupling of sequential injection analysis-bead injection to liquid chromatography-electrospray ionization tandem mass spectrometry. Analytical and Bioanalytical Chemistry, 2015, 407, 5719-5728.	3.7	8
60	The retrieval of fingerprint friction ridge detail from elephant ivory using reduced-scale magnetic and non-magnetic powdering materials. Science and Justice - Journal of the Forensic Science Society, 2016, 56, 1-8.	2.1	8
61	Perchlorate detection <i>via</i> an invertebrate biosensor. Analytical Methods, 2021, 13, 327-336.	2.7	8
62	Direct detection of trace haloacetates in drinking water using microbore ion chromatographyImproved detector sensitivity using a hydroxide gradient and a monolithic ion-exchange type suppressor. Journal of Chromatography A, 2004, 1047, 205-212.	3.7	7
63	Sorbent Film-Coated Passive Samplers for Explosives Vapour Detection Part B: Deployment in Semi-Operational Environments and Alternative Applications. Scientific Reports, 2018, 8, 5816.	3.3	5
64	Recognising our emerging researchers. Science and Justice - Journal of the Forensic Science Society, 2012, 52, 67.	2.1	0
65	The final frontier. Science and Justice - Journal of the Forensic Science Society, 2013, 53, 373-374.	2.1	0
66	The Chartered Society of Forensic Sciences — Impacts on R&D?. Science and Justice - Journal of the Forensic Science Society, 2014, 54, 257.	2.1	0