

# Leon P Barron

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

3,063  
citations

147726

31  
h-index

161767

54  
g-index

66  
all docs

66  
docs citations

66  
times ranked

3382  
citing authors

#	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. <i>Science of the Total Environment</i> , 2014, 476-477, 317-326.	3.9	198
2	A review of the pharmaceutical exposome in aquatic fauna. <i>Environmental Pollution</i> , 2018, 239, 129-146.	3.7	189
3	DNA methylation-based forensic age prediction using artificial neural networks and next generation sequencing. <i>Forensic Science International: Genetics</i> , 2017, 28, 225-236.	1.6	170
4	Illicit and pharmaceutical drug consumption estimated via wastewater analysis. Part A: Chemical analysis and drug use estimates. <i>Science of the Total Environment</i> , 2014, 487, 629-641.	3.9	164
5	Spatio-temporal assessment of illicit drug use at large scale: evidence from 7 years of international wastewater monitoring. <i>Addiction</i> , 2020, 115, 109-120.	1.7	154
6	Ion chromatography-mass spectrometry: A review of recent technologies and applications in forensic and environmental explosives analysis. <i>Analytica Chimica Acta</i> , 2014, 806, 27-54.	2.6	128
7	Predicting sorption of pharmaceuticals and personal care products onto soil and digested sludge using artificial neural networks. <i>Analyst, The</i> , 2009, 134, 663.	1.7	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. <i>Science of the Total Environment</i> , 2015, 538, 934-941.	3.9	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. <i>Journal of Environmental Monitoring</i> , 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. <i>Science of the Total Environment</i> , 2016, 565, 977-983.	3.9	85
11	Multi-year inter-laboratory exercises for the analysis of illicit drugs and metabolites in wastewater: Development of a quality control system. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 103, 34-43.	5.8	85
12	Biomonitoring of pesticides, pharmaceuticals and illicit drugs in a freshwater invertebrate to estimate toxic or effect pressure. <i>Environment International</i> , 2019, 129, 595-606.	4.8	83
13	DNA methylation-based age prediction using massively parallel sequencing data and multiple machine learning models. <i>Forensic Science International: Genetics</i> , 2018, 37, 215-226.	1.6	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). <i>Science of the Total Environment</i> , 2019, 657, 1099-1111.	3.9	61
15	Prediction of bioconcentration factors in fish and invertebrates using machine learning. <i>Science of the Total Environment</i> , 2019, 648, 80-89.	3.9	60
16	Pharmaceuticals in the freshwater invertebrate, <i>Gammarus pulex</i> , determined using pulverised liquid extraction, solid phase extraction and liquid chromatography-tandem mass spectrometry. <i>Science of the Total Environment</i> , 2015, 511, 153-160.	3.9	59
17	Suspect screening and quantification of trace organic explosives in wastewater using solid phase extraction and liquid chromatography-high resolution accurate mass spectrometry. <i>Journal of Hazardous Materials</i> , 2017, 329, 11-21.	6.5	56
18	High-throughput multi-residue quantification of contaminants of emerging concern in wastewaters enabled using direct injection liquid chromatography-tandem mass spectrometry. <i>Journal of Hazardous Materials</i> , 2020, 398, 122933.	6.5	56

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19	Using ion chromatography to monitor haloacetic acids in drinking water: a review of current technologies. <i>Journal of Chromatography A</i> , 2004, 1046, 1-9.	1.8	55
20	Simultaneous determination of trace oxyhalides and haloacetic acids using suppressed ion chromatography-electrospray mass spectrometry. <i>Talanta</i> , 2006, 69, 621-630.	2.9	55
21	Prediction of Chromatographic Retention Time in High-Resolution Anti-Doping Screening Data Using Artificial Neural Networks. <i>Analytical Chemistry</i> , 2013, 85, 10330-10337.	3.2	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. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 9509-9521.	1.9	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. <i>Talanta</i> , 2016, 147, 261-270.	2.9	51
24	Artificial neural network modelling of pharmaceutical residue retention times in wastewater extracts using gradient liquid chromatography-high resolution mass spectrometry data. <i>Journal of Chromatography A</i> , 2015, 1396, 34-44.	1.8	46
25	Determination of urinary thiocyanate and nitrate using fast ion-interaction chromatography. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2002, 767, 175-180.	1.2	39
26	The First Attempt at Non-Linear in Silico Prediction of Sampling Rates for Polar Organic Chemical Integrative Samplers (POCIS). <i>Environmental Science &amp; Technology</i> , 2016, 50, 7973-7981.	4.6	38
27	Determination of haloacetic acids in drinking water using suppressed micro-bore ion chromatography with solid phase extraction. <i>Analytica Chimica Acta</i> , 2004, 522, 153-161.	2.6	36
28	Targeted metabolomics of <i>Gammarus pulex</i> following controlled exposures to selected pharmaceuticals in water. <i>Science of the Total Environment</i> , 2016, 562, 777-788.	3.9	36
29	Machine Learning for Environmental Toxicology: A Call for Integration and Innovation. <i>Environmental Science &amp; Technology</i> , 2018, 52, 12953-12955.	4.6	34
30	Use of temperature programming to improve resolution of inorganic anions, haloacetic acids and oxyhalides in drinking water by suppressed ion chromatography. <i>Journal of Chromatography A</i> , 2005, 1072, 207-215.	1.8	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. <i>Talanta</i> , 2016, 161, 219-227.	2.9	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. <i>Journal of Chromatography A</i> , 2008, 1213, 31-36.	1.8	32
33	Rapid on-line preconcentration and suppressed micro-bore ion chromatography of part per trillion levels of perchlorate in rainwater samples. <i>Analytica Chimica Acta</i> , 2006, 567, 127-134.	2.6	31
34	Uptake, biotransformation and elimination of selected pharmaceuticals in a freshwater invertebrate measured using liquid chromatography tandem mass spectrometry. <i>Chemosphere</i> , 2017, 183, 389-400.	4.2	31
35	Assessing the reliability of uptake and elimination kinetics modelling approaches for estimating bioconcentration factors in the freshwater invertebrate, <i>Gammarus pulex</i> . <i>Science of the Total Environment</i> , 2016, 547, 396-404.	3.9	30
36	The transportation, transformation and (bio)accumulation of pharmaceuticals in the terrestrial ecosystem. <i>Science of the Total Environment</i> , 2021, 781, 146684.	3.9	30

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37	Double gradient ion chromatography using short monolithic columns modified with a long chained zwitterionic carboxybetaine surfactant. <i>Journal of Chromatography A</i> , 2006, 1109, 111-119.	1.8	27
38	Probing gunshot residue, sweat and latent human fingerprints with capillary-scale ion chromatography and suppressed conductivity detection. <i>Analyst</i> , The, 2012, 137, 1576.	1.7	26
39	Suspect screening of halogenated carboxylic acids in drinking water using ion exchange chromatography – high resolution (Orbitrap) mass spectrometry (IC-HRMS). <i>Talanta</i> , 2018, 178, 57-68.	2.9	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. <i>Talanta</i> , 2019, 203, 65-76.	2.9	24
41	Holistic visualisation of the multimodal transport and fate of twelve pharmaceuticals in biosolid enriched topsoils. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 287-296.	1.9	23
42	Organic solvent and temperature-enhanced ion chromatography-high resolution mass spectrometry for the determination of low molecular weight organic and inorganic anions. <i>Analytica Chimica Acta</i> , 2015, 865, 83-91.	2.6	22
43	Multicompartment and cross-species monitoring of contaminants of emerging concern in an estuarine habitat. <i>Environmental Pollution</i> , 2021, 270, 116300.	3.7	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). <i>Analyst</i> , The, 2019, 144, 1128-1139.	1.7	19
45	Environmental monitoring of urban streams using a primary fish gill cell culture system (FIGCS). <i>Ecotoxicology and Environmental Safety</i> , 2015, 120, 279-285.	2.9	18
46	A pilot wastewater-based epidemiology assessment of anabolic steroid use in Queensland, Australia. <i>Drug Testing and Analysis</i> , 2019, 11, 937-949.	1.6	17
47	Rapid direct analysis of river water and machine learning assisted suspect screening of emerging contaminants in passive sampler extracts. <i>Analytical Methods</i> , 2021, 13, 595-606.	1.3	17
48	Quantitative Assessment of Dietary (Poly)phenol Intake: A High-Throughput Targeted Metabolomics Method for Blood and Urine Samples. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 537-554.	2.4	17
49	Using ion chromatography to monitor haloacetic acids in drinking water: a review of current technologies. <i>Journal of Chromatography A</i> , 2004, 1046, 1-9.	1.8	16
50	Trace multi-class organic explosives analysis in complex matrices enabled using LEGO®-inspired clickable 3D-printed solid phase extraction block arrays. <i>Journal of Chromatography A</i> , 2020, 1629, 461506.	1.8	15
51	Untargeted metabolomics changes on <i>Gammarus pulex</i> induced by propranolol, triclosan, and nimesulide pharmaceutical drugs. <i>Chemosphere</i> , 2020, 260, 127479.	4.2	15
52	Characterisation of gunshot residue from three ammunition types using suppressed anion exchange chromatography. <i>Forensic Science International</i> , 2012, 221, 50-56.	1.3	14
53	Residues from low-order energetic materials: The comparative performance of a range of sampling approaches prior to analysis by ion chromatography. <i>Forensic Science International</i> , 2013, 233, 55-62.	1.3	14
54	Detection of anionic energetic material residues in enhanced fingermarks on porous and non-porous surfaces using ion chromatography. <i>Forensic Science International</i> , 2013, 231, 150-156.	1.3	14

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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. <i>Molecules</i> , 2021, 26, 5431.	1.7	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). <i>Analytica Chimica Acta</i> , 2019, 1072, 1-14.	2.6	12
57	Sorbent Film-Coated Passive Samplers for Explosives Vapour Detection Part A: Materials Optimisation and Integration with Analytical Technologies. <i>Scientific Reports</i> , 2018, 8, 5815.	1.6	10
58	A miniaturized passive sampling-based workflow for monitoring chemicals of emerging concern in water. <i>Science of the Total Environment</i> , 2022, 839, 156260.	3.9	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. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 5719-5728.	1.9	8
60	The retrieval of fingerprint friction ridge detail from elephant ivory using reduced-scale magnetic and non-magnetic powdering materials. <i>Science and Justice - Journal of the Forensic Science Society</i> , 2016, 56, 1-8.	1.3	8
61	Perchlorate detection via an invertebrate biosensor. <i>Analytical Methods</i> , 2021, 13, 327-336.	1.3	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. <i>Journal of Chromatography A</i> , 2004, 1047, 205-212.	1.8	7
63	Sorbent Film-Coated Passive Samplers for Explosives Vapour Detection Part B: Deployment in Semi-Operational Environments and Alternative Applications. <i>Scientific Reports</i> , 2018, 8, 5816.	1.6	5
64	Recognising our emerging researchers. <i>Science and Justice - Journal of the Forensic Science Society</i> , 2012, 52, 67.	1.3	0
65	The final frontier. <i>Science and Justice - Journal of the Forensic Science Society</i> , 2013, 53, 373-374.	1.3	0
66	The Chartered Society of Forensic Sciences - Impacts on R&D?. <i>Science and Justice - Journal of the Forensic Science Society</i> , 2014, 54, 257.	1.3	0