David A Cowan

List of Publications by Year in descending order

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122 papers 3,087 citations

30 h-index 205818 48 g-index

124 all docs

124 docs citations

times ranked

124

2776 citing authors

#	Article	IF	CITATIONS
1	Testosterone Measurement by Isotope-Dilution Liquid Chromatography–Tandem Mass Spectrometry: Validation of a Method for Routine Clinical Practice. Clinical Chemistry, 2005, 51, 1472-1479.	1.5	139
2	Low-dose MDMA ("ecstasyâ€) induces vasopressin secretion. Lancet, The, 1998, 351, 1784.	6.3	130
3	Stereospecific Analysis and Enantiomeric Disposition of 3,4-Methylenedioxymethamphetamine (Ecstasy) in Humans. Clinical Chemistry, 1999, 45, 1058-1069.	1.5	106
4	Interlaboratory Agreement of Insulin-like Growth Factor 1 Concentrations Measured by Mass Spectrometry. Clinical Chemistry, 2014, 60, 541-548.	1.5	96
5	Detection of ketamine and its metabolites in urine by ultra high pressure liquid chromatography–tandem mass spectrometry. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2008, 876, 137-142.	1.2	93
6	Enhanced Affinity Capture MALDI-TOF MS: Orientation of an Immunoglobulin G Using Recombinant Protein G. Analytical Chemistry, 2002, 74, 3677-3683.	3.2	91
7	Multidimensional LC-MS/MS Enables Simultaneous Quantification of Intact Human Insulin and Five Recombinant Analogs in Human Plasma. Analytical Chemistry, 2014, 86, 694-702.	3.2	79
8	Use of ultra-high pressure liquid chromatography coupled to high resolution mass spectrometry for fast screening in high throughput doping control. Journal of Chromatography A, 2013, 1288, 82-95.	1.8	73
9	The effect of 3,4-methylenedioxymethamphetamine (MDMA, ?ecstasy?) and its metabolites on neurohypophysial hormone release from the isolated rat hypothalamus. British Journal of Pharmacology, 2002, 135, 649-656.	2.7	68
10	Counterfeiting in performance―and imageâ€enhancing drugs. Drug Testing and Analysis, 2009, 1, 135-142.	1.6	63
11	Pharmacokinetic Properties of Â-Hydroxybutyrate (GHB) in Whole Blood, Serum, and Urine. Journal of Analytical Toxicology, 2012, 36, 88-95.	1.7	63
12	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.	3.9	61
13	Serum IGF″ and IGF binding proteins 2 and 3 as potential markers of doping with human GH. Clinical Endocrinology, 1997, 47, 43-50.	1.2	60
14	Liquid chromatographic–mass spectrometric analysis of glucuronideâ€conjugated anabolic steroid metabolites: method validation and interlaboratory comparison. Journal of Mass Spectrometry, 2008, 43, 965-973.	0.7	55
15	Use of Human Microsomes and Deuterated Substrates: An Alternative Approach for the Identification of Novel Metabolites of Ketamine by Mass Spectrometry. Drug Metabolism and Disposition, 2009, 37, 1769-1778.	1.7	54
16	Prediction of Chromatographic Retention Time in High-Resolution Anti-Doping Screening Data Using Artificial Neural Networks. Analytical Chemistry, 2013, 85, 10330-10337.	3.2	54
17	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.	1.8	46
18	The use of growth hormone (GH)â€dependent markers in the detection of GH abuse in sport: Physiological intraâ€individual variation of IGFâ€i, type 3 proâ€collagen (Pâ€illâ€P) and the GHâ€2000 detection score. Clinical Endocrinology, 2010, 72, 520-526.	1.2	43

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19	Comprehensive investigation of the influence of acidic, basic, and organic mobile phase compositions on bioanalytical assay sensitivity in positive ESI mode LC/MS/MS. Journal of Pharmaceutical and Biomedical Analysis, 2012, 59, 138-150.	1.4	43
20	Comparison of reversed-phase and hydrophilic interaction liquid chromatography for the quantification of ephedrines using medium-resolution accurate mass spectrometry. Journal of Chromatography A, 2013, 1289, 37-46.	1.8	43
21	Influence of ethnicity on IGFâ€l and procollagen III peptide (Pâ€IIIâ€P) in elite athletes and its effect on the ability to detect GH abuse. Clinical Endocrinology, 2009, 70, 161-168.	1.2	42
22	Comparison of reversed-phase and hydrophilic interaction liquid chromatography for the separation of ephedrines. Journal of Chromatography A, 2012, 1228, 329-337.	1.8	41
23	MetabolicN-oxidation of 3-substituted pyridines: Identification of products by mass spectrometry. Biomedical Mass Spectrometry, 1978, 5, 551-556.	1.8	38
24	Arginine vasopressin release in response to the administration of 3,4-methylenedioxymethamphetamine ("ecstasyâ€): is metabolism a contributory factor?. Journal of Pharmacy and Pharmacology, 2010, 53, 1357-1363.	1.2	38
25	Physical Effects of Short-Term Recombinant Human Growth Hormone Administration in Abstinent Steroid Dependency. Hormone Research in Paediatrics, 2008, 69, 343-354.	0.8	36
26	Tryptic mapping of human chorionic gonadotropin by matrix-assisted laser desorption/ionization mass spectrometry. Rapid Communications in Mass Spectrometry, 1995, 9, 1021-1026.	0.7	35
27	The Effect of Sports Injury on Insulin-Like Growth Factor-I and Type 3 Procollagen: Implications for Detection of Growth Hormone Abuse in Athletes. Journal of Clinical Endocrinology and Metabolism, 2008, 93, 2760-2763.	1.8	35
28	Steroids excreted in urine by neonates with 21-hydroxylase deficiency: Characterization, using GC–MS and GC–MS/MS, of the D-ring and side chain structure of pregnanes and pregnenes. Steroids, 2010, 75, 34-52.	0.8	34
29	Measurement of Ethyl Glucuronide, Ethyl Sulphate and Their Ratio in the Urine and Serum of Healthy Volunteers after Two Doses of Alcohol. Alcohol and Alcoholism, 2013, 48, 74-82.	0.9	34
30	The development of decision limits for the implementation of the GH-2000 detection methodology using current commercial insulin-like growth factor-I and amino-terminal pro-peptide of type III collagen assays. Growth Hormone and IGF Research, 2012, 22, 53-58.	0.5	32
31	Sodium ascorbate improves yield of urinary steroids during hydrolysis with Helix pomatia juice. Steroids, 2008, 73, 309-319.	0.8	31
32	Direct Monitoring of Exogenous \hat{I}^3 -Hydroxybutyric Acid in Body Fluids by NMR Spectroscopy. Analytical Chemistry, 2017, 89, 8343-8350.	3.2	31
33	Hyperandrogenism controversy in elite women's sport: an examination and critique of recent evidence. British Journal of Sports Medicine, 2018, 52, 1481-1482.	3.1	31
34	Doping in Sport: Misuse, Analytical Tests, and Legal Aspects. Clinical Chemistry, 1997, 43, 1110-1113.	1.5	30
35	Quantification of intact human insulinâ€ike growth factorâ€i in serum by nanoâ€ultrahighâ€performance liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2014, 28, 1426-1432.	0.7	30
36	Urinary \hat{I}^3 -Hydroxybutyrate Concentrations in 1126 Female Subjects. Journal of Analytical Toxicology, 2010, 34, 555-561.	1.7	29

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37	Rapid Analysis of Anabolic Steroid Metabolites in Urine by Combining Field Asymmetric Waveform Ion Mobility Spectrometry with Liquid Chromatography and Mass Spectrometry. Analytical Chemistry, 2017, 89, 7431-7437.	3.2	29
38	Effect of Androstenedione Ingestion on Plasma Testosterone in Young Women; a Dietary Supplement with Potential Health Risks. Clinical Chemistry, 2003, 49, 167-169.	1.5	28
39	A molecularly imprinted receptor for separation of testosterone and epitestosterone, based on a steroidal cross-linker. Steroids, 2011, 76, 478-483.	0.8	28
40	Medical and Ethical Concerns Regarding Women With Hyperandrogenism and Elite Sport. Journal of Clinical Endocrinology and Metabolism, 2015, 100, 825-827.	1.8	26
41	The development of decision limits for the GHâ€2000 detection methodology using additional insulinâ€like growth factorâ€l and aminoâ€terminal proâ€peptide of type III collagen assays. Drug Testing and Analysis, 2015, 7, 745-755.	1.6	26
42	The GH-2004 project: the response of IGF1 and type III pro-collagen to the administration of exogenous GH in non-Caucasian amateur athletes. European Journal of Endocrinology, 2010, 163, 45-54.	1.9	25
43	Investigation of microbore UPLC and nontraditional mobile phase compositions for bioanalytical LCâ \in MS/MS. Bioanalysis, 2012, 4, 1287-1297.	0.6	25
44	Speciation of Fe(III)-chelate complexes by electrospray ionization ion trap and laser desorption/ionization Fourier transform ion cyclotron resonance mass spectrometry. Rapid Communications in Mass Spectrometry, 2002, 16, 1556-1561.	0.7	23
45	A simple high pH liquid chromatography–tandem mass spectrometry method for basic compounds: Application to ephedrines in doping control analysis. Journal of Chromatography A, 2011, 1218, 2098-2105.	1.8	23
46	Laboratory issues in the implementation of the marker method. Growth Hormone and IGF Research, 2009, 19, 357-360.	0.5	22
47	Steroids excreted in urine by neonates with 21-hydroxylase deficiency. 2. Characterization, using GC–MS and GC–MS/MS, of pregnanes and pregnenes with an oxo- group on the A- or B-ring. Steroids, 2012, 77, 382-393.	0.8	22
48	Identification of Four New Metabolic Products of Metoclopramide using Mass Spectrometry. Xenobiotica, 1976, 6, 605-616.	0.5	21
49	Short-term recombinant human growth hormone administration improves respiratory function in abstinent anabolic–androgenic steroid users. Growth Hormone and IGF Research, 2007, 17, 328-335.	0.5	21
50	Serum Insulin-Like Growth Factor-I and Pro-Collagen Type III N-Terminal Peptide in Adolescent Elite Athletes: Implications for the Detection of Growth Hormone Abuse in Sport. Journal of Clinical Endocrinology and Metabolism, 2010, 95, 2969-2976.	1.8	21
51	MALDI TOF Post-Source Decay Investigation of Alkali Metal Adducts of Apolar Polypentylresorcinol Dendrimers. Macromolecules, 2003, 36, 8297-8303.	2.2	20
52	A rapid screening LCâ€MS/MS method based on conventional HPLC pumps for the analysis of low molecular weight xenobiotics: application to doping control analysis. Drug Testing and Analysis, 2010, 2, 311-322.	1.6	20
53	Intramuscular administration of $5\hat{l}_{\pm}$ -dihydrotestosterone heptanoate: changes in urinary hormone profile. Clinical Chemistry, 1997, 43, 2091-2098.	1.5	20
54	Adrenal and gonadal contributions to urinary excretion and plasma concentration of epitestosterone in men - effect of adrenal stimulation and implications for detection of testosterone abuse. Clinical Endocrinology, 1999, 50, 661-668.	1.2	19

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55	Candida albicans in Urine Can Produce Testosterone: Impact on the Testosterone/Epitestosterone Sports Drug Test. Clinical Chemistry, 2002, 48, 1799-1801.	1.5	19
56	A determination of the pre-analytical storage conditions for insulin like growth factor-I and type III procollagen peptide. Growth Hormone and IGF Research, 2009, 19, 43-50.	0.5	18
57	Doping in sport—1. Excretion of 19-norandrosterone by healthy women, including those using contraceptives containing norethisterone. Steroids, 2009, 74, 329-334.	0.8	18
58	Why do endocrine profiles in elite athletes differ between sports?. Clinical Diabetes and Endocrinology, 2018, 4, 3.	1.3	18
59	Determination of anabolic steroids in dried blood using microsampling and gas chromatography-tandem mass spectrometry: Application to a testosterone gel administration study. Journal of Chromatography A, 2020, 1628, 461445.	1.8	18
60	Insulin-like growth factor-I (IGF-I) misuse in athletes and potential methods for detection. Analytical and Bioanalytical Chemistry, 2013, 405, 9669-9683.	1.9	17
61	Detection of ketamine and its metabolites in human hair using an integrated nanoflow liquid chromatography column and electrospray emitter fritted with a single porous $101\frac{1}{4}$ m bead. Journal of Chromatography A, 2013, 1277, 1-6.	1.8	17
62	Inter-Laboratory Agreement of Insulin-like Growth Factor 1 Concentrations Measured Intact by Mass Spectrometry. Clinical Chemistry, 2020, 66, 579-586.	1.5	17
63	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.	1.3	17
64	Steroids excreted in urine by neonates with 21-hydroxylase deficiency. 3. Characterization, using GC–MS and GC–MS/MS, of androstanes and androstenes. Steroids, 2012, 77, 1487-1501.	0.8	16
65	LC-MS-Based Metabolomics Discovers Purine Endogenous Associations with Low-Dose Salbutamol in Urine Collected for Antidoping Tests. Analytical Chemistry, 2016, 88, 2243-2249.	3.2	16
66	IRMS delta values (¹³ C) of nandrolone and testosterone products available in the UK: Implications for antiâ€doping. Drug Testing and Analysis, 2018, 10, 1722-1727.	1.6	16
67	Subjectâ€based profiling for the detection of testosterone administration in sport. Drug Testing and Analysis, 2009, 1, 22-24.	1.6	15
68	21-Hydroxylase deficiency in the neonate – trends in steroid anabolism and catabolism during the first weeks of life. Journal of Steroid Biochemistry and Molecular Biology, 2013, 138, 334-347.	1.2	15
69	Metabolic Phenotype of the Healthy Rodent Model Using In-Vial Extraction of Dried Serum, Urine, and Cerebrospinal Fluid Spots. Analytical Chemistry, 2013, 85, 7257-7263.	3.2	15
70	Ambient ionization mass spectrometry applied to new psychoactive substance analysis. Mass Spectrometry Reviews, 2023, 42, 3-34.	2.8	15
71	Recombinant Human Growth Hormone in Abstinent Androgenic-Anabolic Steroid Use: Psychological, Endocrine and Trophic Factor Effects. Current Neurovascular Research, 2007, 4, 9-18.	0.4	14
72	A new marker for early diagnosis of 21-hydroxylase deficiency: 3β,16α,17α-trihydroxy-5α-pregnane-7,20-dione. Journal of Steroid Biochemistry and Molecular Biology, 2010, 121, 574-581.	1.2	14

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7 3	Biochemical Markers of Insulin-Like Growth Factor-I Misuse in Athletes: The Response of Serum IGF-I, Procollagen Type III Amino-Terminal Propeptide, and the GH-2000 Score to the Administration of rhIGF-I/rhIGF Binding Protein-3 Complex. Journal of Clinical Endocrinology and Metabolism, 2014, 99, 2259-2268.	1.8	14
74	Metabolism of metyrapone: 2â€"chromatographic and mass spectral properties of theN-oxides of metyrapone and metyrapol. Biological Mass Spectrometry, 1981, 8, 270-277.	0.5	13
75	Effects of Oral Administration of Androstenedione on Plasma Androgens in Young Women Using Hormonal Contraception. Journal of Clinical Endocrinology and Metabolism, 2004, 89, 6030-6038.	1.8	13
76	Ion trap MS/MS of intact testosterone and epitestosterone conjugates—Adducts, fragile ions and the advantages of derivatisation. Steroids, 2008, 73, 621-628.	0.8	13
77	Steroids excreted in urine by neonates with 21-hydroxylase deficiency. 4. Characterization, using GC–MS and GC–MS/MS, of 11oxo-pregnanes and 11oxo-pregnenes. Steroids, 2013, 78, 468-475.	0.8	13
78	Evaluation of longitudinal steroid profiles from male football players in UEFA competitions between 2008 and 2013. Drug Testing and Analysis, 2016, 8, 603-612.	1.6	13
79	Isolation, detection and identification of synthetic cannabinoids in alternative formulations or dosage forms. Forensic Chemistry, 2020, 18, 100227.	1.7	13
80	Moving one step closer to catching the GH cheats: The GH-2004 experience. Growth Hormone and IGF Research, 2009, 19, 346-351.	0.5	12
81	Doping in sport—2. Quantification of the impurity 19-norandrostenedione in pharmaceutical preparations of norethisterone. Steroids, 2009, 74, 335-340.	0.8	12
82	Synthesis of N-oxide derivatives of metyrapone and their detection as in vitro metabolites*. Journal of Pharmacy and Pharmacology, 2011, 33, 309-312.	1.2	12
83	The effects of a freezeâ€thaw cycle and preâ€analytical storage temperature on the stability of insulinâ€iike growth factorâ€i and proâ€collagen type III Nâ€terminal propeptide concentrations: Implications for the detection of growth hormone misuse in athletes. Drug Testing and Analysis, 2012, 4, 455-459.	1.6	12
84	Properties and units in the clinical laboratory sciences. Part XII. Properties and units in clinical pharmacology and toxicology (Technical Report) (IFCC-IUPAC 1999). Pure and Applied Chemistry, 2000, 72, 479-552.	0.9	11
85	Detection of the Administration of Human Erythropoietin (HuEPO) to Canines. Journal of Analytical Toxicology, 2006, 30, 663-669.	1.7	11
86	Doping in sport: 3. Metabolic conversion of oral norethisterone to urinary 19-norandrosterone. Steroids, 2009, 74, 341-349.	0.8	11
87	Biochemical markers of recombinant human insulinâ€like growth factorâ€l (rhIGFâ€l)/rhIGF binding proteinâ€3 (rhIGFBPâ€3) misuse in athletes. Drug Testing and Analysis, 2013, 5, 843-849.	1.6	11
88	In Vitro Phase I Metabolic Profiling of the Synthetic Cannabinoids AM-694, 5F-NNEI, FUB-APINACA, MFUBINAC, and AMB-FUBINACA. Chemical Research in Toxicology, 2020, 33, 1653-1664.	1.7	10
89	Advances in the detection of growth hormone releasing hormone synthetic analogs. Drug Testing and Analysis, 2021, 13, 1871-1887.	1.6	10
90	A miniaturized passive sampling-based workflow for monitoring chemicals of emerging concern in water. Science of the Total Environment, 2022, 839, 156260.	3.9	10

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91	Evidence for a decrease in cardiovascular risk factors following recombinant growth hormone administration in abstinent anabolic-androgenic steroid users. Growth Hormone and IGF Research, 2007, 17, 201-209.	0.5	9
92	Determining the authenticity of athlete urine in doping control by DNA analysis. Drug Testing and Analysis, 2015, 7, 912-918.	1.6	9
93	Properties and units in the clinical laboratory sciences VI. Properties and units in IOC prohibited drugs (Technical Report). Pure and Applied Chemistry, 1997, 69, 1081-1136.	0.9	8
94	Synthesis of a dendron and dendrimer consisting of MALDI matrix like branching units. Tetrahedron Letters, 2002, 43, 6723-6727.	0.7	7
95	The Quest for Clean Competition in Sports: Are the Testers Catching the Dopers?. Clinical Chemistry, 2011, 57, 943-947.	1.5	7
96	Increases in Serum Growth Hormone Concentrations Associated with GHB Administration. Journal of Analytical Toxicology, 2017, 41, 54-59.	1.7	7
97	Procollagen type III aminoâ€terminal propeptide and insulinâ€like growth factor I as biomarkers of growth hormone administration. Drug Testing and Analysis, 2022, 14, 808-819.	1.6	7
98	Investigation of basic mobile phases with positive ESI LC–MS for metabonomics studies. Bioanalysis, 2012, 4, 2833-2842.	0.6	6
99	The effects of two weeks of recombinant growth hormone administration on the response of IGF-I and N-terminal pro-peptide of collagen type III (P-III-NP) during a single bout of high resistance exercise in resistance trained young men. Growth Hormone and IGF Research, 2013, 23, 76-80.	0.5	6
100	Signal enhancement of glucuronide conjugates in LCâ€MS/MS by derivatization with the phosphonium propylamine cation tris(trimethoxyphenyl) phosphonium propylamine, for forensic purposes. Drug Testing and Analysis, 2014, 6, 500-505.	1.6	6
101	Use and misuse of hormones in sport. Lancet Diabetes and Endocrinology, the, 2016, 4, 882-883.	5.5	6
102	Statistical methodology for age-adjustment of the GH-2000 score detecting growth hormone misuse. BMC Medical Research Methodology, 2016, 16, 147.	1.4	6
103	Peptide selection for the quantification of Pâ€IIIâ€NP in human serum by mass spectrometry. Rapid Communications in Mass Spectrometry, 2018, 32, 535-542.	0.7	6
104	Metabolism of 4-substituted-N-ethyl-N-methylanilines: Chromatographic and mass spectrometric identification of N-oxidation metabolic products formed in vitro. Biomedical Mass Spectrometry, 1982, 9, 233-240.	1.8	5
105	Discrimination of mammalian growth hormones by peptide-mass mapping. Rapid Communications in Mass Spectrometry, 1998, 12, 975-981.	0.7	5
106	A simple and rapid preâ€confirmation method to distinguish endogenous human haemoglobin from synthetic haemoglobinâ€based oxygen carriers in doping control. Electrophoresis, 2011, 32, 2915-2918.	1.3	5
107	Evidence of enzyme-mediated transesterification of synthetic cannabinoids with ethanol: potential toxicological impact. Forensic Toxicology, 2020, 38, 95-107.	1.4	5
108	Drug testing. Essays in Biochemistry, 2008, 44, 139-148.	2.1	5

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109	Two Assays for Dihydrocodeine in Plasma and in Urine and Their Use to Determine the Bioavailability of a Controlled-Release Product. Journal of Pharmaceutical Sciences, 1988, 77, 606-609.	1.6	4
110	Transmission of the results of tests for International Olympic Committee-defined drugs of abuse. Biomedical Applications, 1996, 687, 157-182.	1.7	4
111	Metabolites of lorazepam: Relevance of past findings to present day use of LCâ€MS/MS in analytical toxicology. Drug Testing and Analysis, 2011, 3, 695-704.	1.6	4
112	Novel markers to detect recombinant human insulinâ€like growth factorâ€l (rhIGFâ€l)/rhIGF binding proteinâ€3 (rhIGFBPâ€3) misuse in athletes. Drug Testing and Analysis, 2017, 9, 30-37.	1.6	4
113	A correction to the age-adjustment of the GH-2000 score used in the detection of growth hormone misuse. BMC Research Notes, 2018, 11 , 650 .	0.6	4
114	Exact statistical calculation of the uncertainty term in the decision limits of the GH-2000 score for growth hormone misuse (doping) detection. Statistical Methods in Medical Research, 2019, 28, 928-936.	0.7	4
115	Comparison of normal distribution–based and nonparametric decision limits on the GHâ€2000 score for detecting growth hormone misuse (doping) in sport. Biometrical Journal, 2021, 63, 187-200.	0.6	4
116	Potent and untested drugs sold as "dietary supplements― BMJ, The, 2015, 351, h4181.	3.0	3
117	Artificial oral fluid characterisation: Potential for use as a reference matrix in drug testing. Drug Testing and Analysis, 2021, 13, 709-719.	1.6	2
118	Combined statistical decision limits based on two GH-2000 scores for the detection of growth hormone misuse. Statistical Methods in Medical Research, 2022, 31, 1439-1448.	0.7	2
119	Antidoping analysis: a special focus. Bioanalysis, 2020, 12, 707-709.	0.6	1
120	Stability of drugs of abuse in synthetic oral fluid investigated using a simple "dilute and inject― method of analysis. Drug Testing and Analysis, 2022, , .	1.6	1
121	Incorporating cutting-edge analytical science research into anti-doping testing. Science and Justice - Journal of the Forensic Science Society, 2012, 52, 135.	1.3	0
122	Towards identifying nicomorphine administration in doping control: synthesis of metabolites. Bioanalysis, 2021, 13, 1415-1425.	0.6	O