

## Subject Index

- acetate, determination of 39
- acidity, determination of 21
- acrylamide, determination of 400, 401
- acrylate, determination of 39
- actinium, determination of 112
- adsorption techniques 354
- aldehydes, determination of 380, 381
- aliphatic chloro-compounds,  
determination of 390-392
- aliphatic hydrocarbons, determination of  
366-368
- alkalinity  
determination 39-41  
preservation 21
- alkyl lauryl sulfide, determination  
of 401
- aluminium  
- determination of 112-114, 247,  
271, 322  
- sampling 2
- americium, determination of 336
- amines, determination of 398
- ammonium  
- determination of 114-118, 313  
- preservation 21
- amperometry, determination of anions  
103-108
- anions, pre-concentration 91, 92
- anionic surfactants, determination  
of 22, 386-388
- anodic stripping voltammetry,  
determination of  
- cations 114, 123, 134, 166, 172, 210,  
217, 248, 316, 322  
- organometallic compounds 6, 44
- antimonate, determination of 91
- antimony  
- determination of 119, 229, 233, 235,  
244, 247, 253, 262, 323  
- sampling of 2, 3
- aromatic hydrocarbons, determination  
of 368, 369
- arsenate, determination of 41, 88,  
89, 91
- arsenic  
- determination of 120-124, 219, 232,  
238, 241-247, 262, 313, 314, 323  
- preservation 24  
- sampling 2
- arsenite, determination of 41-88,  
89, 91
- atomic absorption spectrometry  
- of anions 48, 49, 56, 65, 101  
- of cations 101, 114, 119, 121, 124, 125,  
126, 128, 129, 135, 138, 148, 154, 163,  
166, 174, 203, 205, 207, 213, 216, 220,  
223-239, 314-318, 323  
- of organic compounds 379  
- of organometallic compounds 444,  
450, 455
- atomic emission spectrometry,  
determination of organometallic  
compounds 459
- atomic fluorescence spectroscopy,  
determination of cations 150, 168
- azarines, determination of 400
- azine herbicides, determination of 411
- barium, determination of 124, 125, 262,  
265, 266, 313, 314
- benzoate, determination of 41
- beryllium, determination of 125, 247
- biochemical oxygen demand  
determination of 21, 496
- bismuth, determination of 126, 127,  
229, 233, 244, 253
- Blumer sampler 5
- Bodeja-Bodman bottle 6

- borate, determination of 42  
boron, determination of 127, 128, 467  
bromate, determination of 42–45  
bromide, determination of 45, 46,  
89, 90  
bromine, determination of 266  
bromo-organic compounds,  
0 determination of 49, 50  
butyrate, determination of 41
- cadmium  
– determination of 14, 128–134, 220,  
223–225, 229–232, 241–270, 315,  
320–323, 365  
– preservation 22, 23  
caesium,  
– determination of 136, 270  
– preservation of 24, 25  
calcium, determination of 136–139,  
219, 262, 316  
carbohydrates, determination of  
382, 385  
carbon dioxide, determination of 108,  
109  
carbon functions, determination of  
472–493  
carboxylic acids, determination of  
377–379  
cathodic stripping voltammetry  
– determination of anions 63, 69, 72  
– determination of cations 151, 191, 192,  
202, 211, 214, 259, 322  
cationic surfactants, determination  
of 386  
cations, preconcentration 288, 374  
cerium, determination of 136, 194, 196,  
266, 267  
chelators, determination of 415  
chemical oxygen demand, determination  
of 21, 490–495  
chemiluminescence of  
– anions 68  
– cations 150, 166, 219  
chloride, determination of 47, 48  
chlorodioxines, determination of 393  
chloro-insecticides, determination of  
403–409  
chlorophyll, determination of 20  
chlorothalonil, determination of 412  
chromate, determination of 48, 53, 91  
chromium, determination of 139–145,  
224, 232, 241–251, 261, 265, 267, 270,  
321, 322  
chronopotentiometry  
– determination of anions 48  
– determination of cations 260  
coastal water  
– determination of anions 99–102  
cobalamin, determination of 423  
cobalt  
– determination of 148–151, 220–224,  
232, 241–247, 251, 259, 261–267,  
320–322  
– preservation 24, 25  
– sampling 13, 14  
continuous flow analysis  
– determination of anions 69, 75  
copper  
– determination of 14, 16, 132–157, 220,  
225, 229, 232, 241–248, 251–271, 316,  
317, 320–323  
– sampling 10, 13, 14, 24, 25  
– speciation 157  
coulometry, determination of  
cations 128  
coprecipitation techniques 353  
cyanide, determination of 20, 21  
cysteine, determination of 403
- dichromate, determination of 48–53  
dimethyl sulfoxide, determination  
of 402  
diuron, determination of 412  
dynamic headspace analysis,  
determination of organics 366  
dysprosium, determination of  
163, 196
- electron spin resonance spectroscopy of  
cations 157  
electrostatic ion chromatography of  
anions 89, 90  
emission spectroscopy, determination of  
anions 109  
erbium, determination of 163, 196  
estuary waters, determination of anions  
99–102  
ethylene diamine tetracetic acid,  
determination of 401  
europium, determination of 163, 196

- flavins, determination of 426
- flow injection analysis of
- anions 68, 72-76, 84
  - cations 148, 168, 217
  - gases 108
- fluoride, determination of 53-56, 91
- fluorobenzazole, determination of 402
- formate, determination of 57
- fractionation techniques 361
- free chlorine, determination of 103-108
- freeze drying 350, 351
- froth flotation 351
- gadolinium, determination of 163, 196
- gallium, determination of 163, 262
- garvey sampler 4
- gas chromatography, determination of
- anions 55, 108
  - cations 114, 203, 207
  - organic compounds 373, 377, 381, 403, 405, 411
  - organometallic compounds 452, 456
- gas chromatography-mass spectrometry, determination of 375, 382, 411, 466
- gas stripping 357-361
- gel permeation chromatography, determination of cations 174
- germanium, determination of 163
- Go-Flow sampler 8-11, 13, 15
- gold, determination of 164, 267
- Harvey drum samples 4
- headspace sampler, determination of
- gases 108-109
- high performance liquid chromatography, determination of
- anions 57, 58
  - cations 111, 209, 271, 318
  - organic compounds 369, 378, 384, 404, 408, 410, 461
- holmium, determination of 164, 196
- humic materials, determination of 416
- hydrobios sampler 9, 10, 25
- hydrocarbons, preservation 29
- hydrogen ion concentration, determination of 21, 89, 90
- hydrogen sulphide, determination of 108
- hydrowire sampler 8-12
- hydroxy acids, determination of 377-379
- hydroxylamine, determination of 400
- hypochlorite, determination of 58
- indium
- determination of 164, 229, 244, 247
  - preservation 24, 25
- inductively coupled plasma atomic emission spectrometry, determination of
- anions 86, 87
  - cations 139, 184, 319
- inductively coupled plasma mass spectrometry, determination of
- cations 123, 164, 184, 188, 214, 244, 323
- international council for exploration of sea 7
- iodate, determination of 58-61
- iodide, determination of 62-65, 89, 90
- iodine, determination of 467
- ion chromatography of anions 9, 41, 64, 69, 82, 88
- ion exclusion chromatography, determination of anions 455
- ion interaction chromatography, determination of anions 75
- ion selective electrodes, determination of
- anions 47, 53-56, 109
  - cations 118, 138, 155, 194
- irgalol, determination of 412
- iridium, determination of 165, 230
- iron
- determination of 165-167, 220, 229, 242-247, 260-271, 320-322
  - preservation 24, 25
  - sampling 13, 14
- isotachaelectrophoresis, determination of
- anions 46, 85, 86
  - gases 108
- isotope dilution analysis, determination of
- anions 72
  - cations 57
- ketones, determination of 380, 381
- lanthanum, determination of 167, 266, 271

- lead  
 - determination of 15, 16, 168-174, 220-224, 229, 232, 241-258, 261, 268, 269, 320-322  
 - preservation 75  
 - sampling 13-15  
 lipids, determination of 412  
 lithium, determination of 174, 223, 268  
 lutecium, determination of 175, 196
- magnesium, determination of 175-180, 229, 232, 241-247, 260-271, 318, 320-323  
 mass spectrometry, determination of cations 174, 192, 201, 206, 268, 319  
 mercury  
 - determination of 180-186, 229-245, 253, 262, 264, 267, 317, 318  
 - preservation 21, 25, 26  
 - sampling 1, 14, 15  
 metals, preservation 21  
 microcystine, determination of 426  
 molybdate, determination of 65, 91  
 molybdenum, determination of 65, 91, 180-189, 229, 232, 243, 260, 262, 265
- neodymium, determination of 189, 195  
 neutron activation analysis 122, 164, 174, 180, 200, 204, 205, 206, 214, 262  
 nickel  
 - determination of 14, 16, 190-192, 220-224, 232, 241-247, 259-271, 320-323  
 - sampling 9, 13, 14  
 Niskin bottle sampler 6, 9, 10, 15  
 nitrate, determination of 21, 65-71, 73-76, 89, 90, 99, 100, 102  
 nitric oxide, determination of 108  
 nitrite, determination of 21, 71, 73-5, 99, 100  
 nitro compounds, determination of 399  
 nitrogen compounds, determination of 393, 394  
 nitrogen elemental, determination of 468-470  
 non-ionic surfactants, determination of 22, 388, 389  
 nucleic acids, determination of 397
- oil spills, examination of 20, 370-377
- organic compounds, preconcentration 426  
 organoarsenic compounds, determination of 443-446  
 organocadmium compounds, determination of 446  
 organochromium compounds, determination of 49, 50  
 organocopper compounds, determination of 446  
 organolead compounds, determination of 447  
 organomercury compounds, determination of 447-454  
 organophosphorus compounds, determination of 409-411  
 organosulfur compounds, determination of 401-403  
 organothallium compounds, determination of 454  
 organotin compounds, determination of 455-461  
 osmium, determination of 192  
 oxygen isotopes, determination of 192  
 ozone, determination of 108
- palladium, determination of 192  
 pectenotoxins, determination of 423  
 peptides, determination of 397  
 perrhenate, determination of 76, 91  
 pesticides, fixing 20  
 phenols, determination of 22, 381, 382  
 phosphate  
 - determination of 22, 76-82, 88, 89, 100, 102  
 - preservation 29  
 - phosphorus, determination of 470  
 photoactivation analysis of anions 56  
 phthalates  
 - determination of 382  
 - preservation 26, 27, 29  
 plant pigments, determination of 416-423  
 platinum, determination of 192, 230  
 plutonium, determination of 192, 336, 339  
 polarography  
 - determination of anions 42-45, 87, 88  
 - determination of cations 151, 180, 193, 212, 318

- polonium, determination of 193  
polyaromatic hydrocarbons  
– determination of 369  
– preservation 29  
polychlorobiphenyls, determination of 26, 27, 404  
potassium, determination of 193, 223, 262  
praseodymium, determination of 194, 195  
preconcentration of  
– anions 92  
– cations 288, 324  
– organic compounds 426  
preservation of seawater 17  
promethium, determination of 194, 195  
propionate, determination of 82  
protein, determination of 397  
pyruvate, determination of 82
- radioactive element, determination of 328–348  
radioactinium, determination of 328  
radiobarium, determination of 331  
radiocobalt, determination of 338  
radioiron, determination of 338  
radiolead, determination of 328, 331  
radiomanganese, determination of 338  
radium, determination of 341  
radiophosphorus, determination of 335  
radiopolonium, determination of 328  
radiatorhenium, determination of 341  
radiotechnetium, determination of 333  
radiouranium, determination of 342  
radium, determination of 194, 31  
raman spectroscopy of organic compounds 368  
rare earths, determination of 194, 197  
reverse osmosis 350  
rhenium, determination of 199, 200  
rubidium  
– determination of 200, 201, 208, 223, 247, 262  
– preservation 24, 25  
ruthenium, determination of 201
- samarium, determination of 195, 201  
sample containers 30–31  
sample contamination 27–33  
sample preparation 349–364  
sampling procedure 1–17  
sampling devices 5–7  
scandium  
– determination of 201, 266, 267  
– preservation 24, 25  
selenate, determination of 87, 100, 101  
selenite, determination of 82, 83, 100, 101  
selenium, determination of 201–203, 229, 232–244, 260, 262, 318  
segmented flow analysis, determination of anions 46  
sodium, determination of 204, 205  
solvent extraction 351–353  
solid state membrane electrodes, determination of anions 46  
speciation cations 157, 271  
spectrofluorimetry of  
– anions 82, 83, 100  
– cations 113, 150, 216  
– organic compounds 368, 370  
spectrophotometry of  
– anions 40–45, 53, 58–61, 63, 65, 73, 77–84, 88, 100, 102  
– cations 112, 115, 127, 148, 155, 165, 166, 186, 190, 202, 207, 211, 213, 219  
– organic compounds 377, 380, 381, 382  
– organometallic compounds 445  
sterols, determination of 413  
strontium  
– determination of 205, 219, 262  
– preservation 24, 25  
sulfate, determination of 56–88, 100, 102  
sulfide, determination of 20, 22, 85, 86, 88, 89, 102  
sulfur, determination of 471, 472  
surface films, analysis of 3–7  
suspended solids, determination of 90–92
- technetium, determination of 205–207  
tellurium, determination of 205, 229, 233  
terbium, determination of 197, 206  
thallium, determination of 206, 229, 244, 269  
thiols, determination of 402

- thorium, determination of 206, 207,  
265, 266, 337
- thullium, determination of 196, 207
- tin, determination of 208–212, 229, 233,  
265, 318, 319
- titanium, determination of 211, 262
- tungsten, determination of 211
- ultraviolet spectroscopy, determination  
of anions 66, 67, 99
- uranium  
– determination of 211, 212, 260,  
262–270, 322  
– preservation 24, 25
- urea, determination of 400
- valerate, determination of 88
- vanadium, determination of 213, 214,  
229, 243, 247, 260, 267, 268
- vitamins, determination of 423
- voltammetry, determination of organic  
compounds 380
- volatile organic compounds,  
determination of 392, 393
- World Meteorological Commission 7
- X-ray emission spectrometry,  
determination of anions 45
- X-ray fluorescence spectroscopy,  
determination of  
– anions 45  
– cations 124, 189, 201, 261  
– organic compounds 411
- ytterbium, determination of 196
- yttrium, determination of 215, 233, 262
- zinc  
– determination of 215–218, 220, 233,  
242–250, 254, 261, 265–269, 320–322  
– preservation 22–25  
– sampling 13, 14
- zirconium, determination of 218–220,  
262