

AUTHOR INDEX

- Aregbe, Y., 167
 Batistoni, D. A., 455
 Bettinelli, M., 333
 Bolle, F., 3
 Borges, D. L. G., 81
 Boutakhrit, K., 3
 Bouysiere, B., 505
 Cammarone, R., 353
 Christensen, T., 297
 Caroli, S., 353, 383
 Caruso, J. A., 671
 Cubadda, F., 225
 D'Amato, M., 383
 Degroodt, J. M., 3
 de la Flor St. Rémy, R., 401
 Dernovics, M., 597
 Engman, J., 51
 Fernández Sanchez, M. L., 401, 535
- Fodor, P., 597
 Fazzoli, C., 353, 383
 Gatti, A., 333
 Goeyens, L., 3
 Heitmann, U., 81
 Hird, S., 115
 Jorhem, L., 51
 Kirby, J., 567
 Krikowa, F., 567, 643
 Krystek, P., 707
 Larsen, E. H., 297
 Lewis, J., 115
 Maher, W. A., 567, 643
 Matusiewicz, H., 19
 Michalke, B., 535
 Minoia, C., 333
 Polatajko, A., 505

- | | |
|--------------------------|-------------------|
| Prohaska, Th., 167 | Spezia, S., 333 |
| Ritsema, R., 707 | Szpunar, J., 505 |
| Roggjær, 297 | Turconi, G., 333 |
| Robouch, P., 167 | |
| Roggi, G., 333 | Van Loco, J., 135 |
| Ronchi, A., 333 | Welz, B., 81 |
| Sanz-Medel, A., 401, 535 | Wrobel, Kt., 671 |
| Smichowski, P., 455 | Wrobel, Kz., 672 |
| Sneddon, J., 437 | Záray, Gy., 383 |

SUBJECT INDEX

- AAS. *See* Atomic absorption spectrometry
Accreditation *See also ISO 17025*
 Standard. 136, 177, 195, 205
Accuracy (of) analytical methods, 14, 31, 147, 298, 393, 714
AES. *See* Atomic emission spectrometry
Applicability, 136
Arsenic,
 determination, 65
 determination (in) food, animal origin, 188, 202, 208, 304, 330, 579
 determination (in) food, vegetable origin, 312, 330
intake (with) diet, 312
speciation analysis, 255, 272, 480, 519, 568, 599, 618, 621, 640
Atomic absorption spectrometry,
 cold vapor, 27, 43, 45, 57, 228, 439, 714, 717
 electrothermal atomization (with)
 Zeeman background correction, 6, 23, 32–35, 37, 38, 42, 57, 58, 414, 419, 439, 461, 466, 471, 488, 490, 545, 546, 651, 659, 712, 717
flame, 23, 31, 56, 413, 439, 470, 481–483, 490
high resolution continuum source, 81
 instrumentation, 83
 background correction, 90
hydride generation, 20, 32, 43, 57, 462, 469, 479, 480, 559
multi-element, 102
Atomic emission spectrometry
 flame, 413
Atomic fluorescence spectrometry, 479, 481, 712, 714
Beverages,
 analysis, 227, 231, 459
 speciation analysis (in), 257
Beer, analysis, 479
Bromate, determination (in)
 water, 259
Cadmium,
 determination, 170
 determination (in) food, animal origin, 63, 159, 302, 318, 346

- Cadmium, (*Continued*)
 determination (in) food, vegetable origin, 71, 183, 199, 211, 302, 318, 346
 determination (in) water, 181, 200, 303
 intake (with) diet, 305
 maximum limits (in) foodstuffs, 67
 speciation analysis, 554
- Calcium, speciation analysis, 542, 556
- Calibration, 136
- Capillary electrophoresis, 267, 490, 550, 561, 678, 712
- Capillary zone electrophoresis, 507, 513, 550, 551
- Car catalytic converters, 354
- Chromium, determination (in) food, animal origin, 66
- CIPM. *See* Comité International des Poids et Mesures
- Cobalt,
 determination (in) food, animal origin, 347
 determination (in) food, vegetable origin, 347
- Codex Alimentarius, 172
- Comité International des Poids et Mesures, 172, 176, 197
- Copper,
 determination (in) food, animal origin, 186
 determination (in) water, 182
 speciation analysis, 545, 557
- CRL. *See* Reference Laboratories, Community
- CRMs. *See* Reference materials, certified
- Decision,
 European Commission 2002/657, 136
- Detection capability, 136, 155, 158, 159
- Detection decision, 155
- Directive,
 European Commission 2001/22, 170
 European Commission 94/12, 353
 European Council 96/23, 8
- EA. *See* European Cooperation for Accreditation
- EFSA. *See* European Food Safety Authority
- Electrochromatography, 513
- Electron paramagnetic resonance spectroscopy, 467
- ET-AAS. *See* Atomic absorption spectrometry, electrothermal atomization
- European Cooperation for Accreditation, 175, 201
- European Food Safety Authority, 169
- Flow injection analysis, 25, 30, 40, 43, 230, 242, 245, 269, 414, 477, 483, 490
- Food,
 adulteration, 116
 analysis, 106
 animal origin, 32, 33–36, 38–41, 43, 128, 189, 230, 243, 263, 303, 304, 310, 318, 324, 327, 330, 331, 346, 347, 368–370, 414, 423, 439
 vegetable origin, 35, 36, 39–41, 128, 239, 266, 303, 304, 310, 312, 318, 324, 327, 331, 346, 347, 368–370
 authenticity, 116, 119, 130, 274
 consumption data, 304
 contact (with) materials, 251
 geographical origin, 127
- GC. *See* Gas chromatography
- Gas chromatography, 26, 30, 39, 41–45, 264, 490, 506, 509, 513, 514, 518, 522, 526, 678, 693, 712–714, 716
- Gel electrophoresis, 265, 513, 678
- High performance liquid chromatography, 28, 32, 40, 45, 262, 464, 490, 507, 513, 515, 522, 526, 548, 561, 580, 587, 653, 655, 659, 677, 686–689, 691, 693–695, 712
- Homoskedasticity, 143
- HPLC. *See* High performance liquid chromatography
- Hyphenated techniques, 263, 271, 508, 513, 516, 541, 543, 555, 574, 587, 657, 659, 677, 687–697, 712, 713, 717, 718
- IBWM. *See* International Bureau of Weights and Measures

- ICP-AES. *See* Inductively coupled plasma atomic emission spectrometry
- ICP-MS. *See* Inductively coupled plasma mass spectrometry
- ID. *See* Isotope dilution
- IEC. *See* Ion exchange chromatography
- IEF. *See* Isoelectric focusing
- IMEP. *See* International Measurement Evaluation Programme
- INAA. *See* Instrumental neutron activation analysis
- Indium, determination, 101
- Inductively coupled plasma mass spectrometry, 6, 24, 29, 37, 38, 40–42, 45, 57, 225, 228, 239, 263, 338, 392, 417, 421, 473, 478, 485, 489, 490, 507, 509, 514, 515, 518, 522, 526, 543–545, 549, 550, 552–556, 559, 561, 569, 573, 580, 587, 628, 649, 653, 659, 677, 679, 686–696, 712–714, 717, 718
- hydride generation, 229, 241, 462, 574
- interferences, 75, 365, 571, 650, 680
- laser ablation, 246, 266, 686.
- time of flight, 233, 245, 490, 513, 686, 714
- Inductively coupled plasma atomic emission spectrometry, 23, 29, 34–36, 57, 337, 392, 415, 420, 439, 478, 485, 490, 543–545, 547, 548
- hydride generation, 462, 465, 470, 473, 484, 549
- Infusions, analysis, 482
- Institute for Reference Materials and Measurements, 171, 174, 197
- Instrumental neutron activation analysis, 547–549
- International Bureau of Weights and Measures, 171
- International Measurement Evaluation Programme, 175, 178, 714
- International Office of Vine and Wine, 469
- Iodine,
- determination (in) milk, 26
 - determination (in) milk, infant formulas, 26
 - speciation analysis, 551, 558
- Ion exchange chromatography, 263, 513, 546, 552, 554, 555
- Ion pair chromatography, 263
- IOVW. *See* International Office of Vine and Wine
- IPC. *See* Ion pair chromatography
- IRMM. *See* Institute for Reference Materials and Measurements
- Iron, speciation analysis, 544, 556
- ISO,
- 11843 standard, 156, 156
 - 17025 standard, 136, 195, 205
- Isoelectric focusing, 547, 549, 550, 551
- Isotope,
- dilution, 228, 247, 463, 522, 681, 714
 - fractionation, 123, 125
 - ratios, 122, 125, 425
- JRC. *See* Joint Research Centre
- Joint Research Centre, 171
- Lead,
- determination, 170
 - determination (in) food, animal origin, 14, 62, 66, 109, 159, 189, 192, 303, 310
 - determination (in) food, vegetable origin, 10, 14, 71, 185, 302, 310
 - determination (in) water, 209, 303
 - determination (in) wine, 183
 - intake (with) diet, 308
 - maximum limits (in) foodstuffs, 67
- Lead, organo compounds,
- determination, 516
- Limits (of) detection, 12, 28, 75, 99, 102, 136, 156, 159, 299, 459, 549, 714
- Limits (of) quantification, 28, 156, 483
- Linearity, 138
- Magnesium, speciation analysis, 542, 556
- Manganese, speciation analysis, 553, 560
- Mass spectrometry, 30, 686, 689, 692, 694, 695, 714
- MALDI, 513, 686, 692
- Matrix,
- interferences, 146, 571
 - modifiers (for) electrothermal atomization atomic absorption spectrometry, 61
- MC. *See* Micellar chromatography
- Measurement uncertainty, 195, 204, 210
- Mercury,
- determination, 27, 65, 170

- Mercury, (Continued)**
- determination (in) food, animal origin, 188, 202, 207, 210, 211, 304, 324, 442, 719
 - determination (in) food, vegetable origin, 304, 324
 - determination (in) water, 303
 - intake (with) diet, 310, 442, 708
 - maximum limits (in) foodstuffs, 67
- Mercury, methyl, determination (in)**
- food, animal origin, 187, 517, 709, 716, 719
- Micellar chromatography**, 267
- Microwave-induced plasma atomic emission spectrometry**, 24, 29, 36, 714, 716
- Milk.** *See also* Food, analysis, animal origin
- analysis, 26, 230, 246, 407
 - fractionation, 426, 536
 - sample collection, 409
 - speciation analysis (in), 257
- MIP-AES.** *See* Microwave-induced plasma atomic emission spectrometry
- MS.** *See* Mass spectrometry
- Naji plots**, 193
- Nickel,**
- determination (in) food, animal origin, 303, 321
 - determination (in) food, vegetable origin, 303, 321
 - determination (in) water, 303
 - intake (with) diet, 309
- NRL.** *See* Reference Laboratories, National
- PAGE.** *See* Polyacrylamide gel electrophoresis
- PGEs.** *See* Platinum group elements
- Palladium**, 354
- determination, 361
 - determination (in) food, animal origin, 369
 - determination (in) food, vegetable origin, 369
 - intake (with) diet, 359
- Platinum**, 354
- determination, 361
 - determination (in) food, animal origin, 368
- determination (in) food, vegetable origin, 368
- intake (with) diet, 359
- determination (in) food, vegetable origin, 369
- intake (with) diet, 359
- Platinum group elements**, 354
- determination, 361
 - intake (with) diet, 359
- Polyacrylamide gel electrophoresis**, 686, 692
- Precision (of) analytical methods**, 13, 31, 99, 136, 299
- Proficiency testing.** *See also* International Measurement Evaluation Programme, 74, 176, 181, 190
- QA.** *See* Quality assurance
- QC.** *See* Quality control
- Quality assurance**, 73, 299, 340, 525, 539
- Quality control**, 14, 73, 340, 525, 539, 549, 629, 713, 714
- Quality management**, 212
- Reagents, purity**, 4
- Recovery**, 21, 67, 69, 74, 75, 136, 150, 152
- Reference Laboratories, Community**, 169, 173
- Reference Laboratories, National**, 9, 169, 173, 203
- Reference materials**, 231, 244
- Reference materials, certified**, 10, 15, 21, 32–38, 40–45, 59, 61, 73, 108, 149, 208, 299, 339, 388, 393, 462, 484, 487, 489, 491, 508, 509, 518, 519, 522, 582–586, 658, 697, 714, 715
- Regulation, European Commission**, 170
- Reproducibility (of) analytical methods**, 13, 152
- Repeatability (of) analytical methods**, 13, 152
- Reversed phase chromatography**, 263, 463, 513
- Rhodium**, 354
- determination, 361
 - determination (in) food, animal origin, 370
- determination (in) food, vegetable origin, 370
- intake (with) diet, 359

- Rice. *See also* Food, analysis, vegetable origin
analysis, 183, 383
sample collection, 392
- RMs. *See* Reference materials
- RPC. *See* Reversed phase chromatography
- Ruggedness, 136
- Samples.
collection, 392, 409, 439, 539, 572, 713
contamination, 4, 540
digestion,
 bomb, 9, 485
 dry ashing, 9, 53, 411
 microwave, acid-assisted, 9, 336, 392, 412, 440, 485, 488, 489, 508, 573, 600, 647
 proteolytic enzymes, 608, 609, 715
 tetramethylammonium hydroxide, 21, 714
 wet ashing, 9, 411
extraction, 575, 602, 604, 652, 710, 714
 enzymatic, 510, 606
pretreatment, 5, 392, 409, 439, 508, 509, 539
 prior (to) speciation analysis, 599, 602, 606, 607, 615, 618, 620, 625, 627, 674
storage, 572, 646
- SEC. *See* Size exclusion chromatography
- Selectivity, 136
- Selenium,
determination, 65, 262
determination (in) feces, 253
determination (in) food, animal origin, 189, 304, 327, 347
- determination (in) food, vegetable origin, 304, 326, 347, 682
intake (with) diet, 311
speciation analysis, 522, 549, 598, 611, 641, 644, 645, 651, 687
- Sequential injection analysis, 475
- Signal-to-noise ratio, 99
- Silver, determination, 100
- Size exclusion chromatography, 263, 485, 513, 543–550, 552–554, 558, 559, 685, 686, 688, 690, 691
- Solid phase microextraction, 268, 508
- SPM. *See* Solid phase microextraction
- Speciation analysis, 25, 206, 254, 256, 490, 508, 513, 536–539
- Specificity, 136
- Spirits, analysis, 481
- Stability, 136, 525
- Standard addition, 147, 482
- Statistical tests, 74, 101, 120, 122, 129, 139, 153, 154, 163
- Tin,
determination, 57
determination (in) food, animal origin, 347
determination (in) food, vegetable origin, 347
maximum limits (in) foodstuffs, 67
- Tin, organo compounds, determination (in) food, animal origin, 517
- Trace elements,
determination, 5, 21, 22–24, 25, 29, 32–45, 53, 128, 181, 205, 212, 228, 235, 239, 263, 341, 384, 414, 423, 439, 459, 479, 481
fractionation (in) food, 512
fractionation (in) milk, 427
fractionation (in) wine, 476
intake with diet, 300, 304, 334, 340
profiling, 121
- Traceability, 204
- Training (in) metrology (in) chemistry, 212
- Trueness, 136, 148
- Tuna fish, analysis, 184
- Validation (of) analytical methods, 13, 65, 391, 525
- Water,
analysis, 181, 227
speciation analysis (in), 256
- Water, mineral, analysis, 228, 459
- Wine
analysis, 128, 182, 232, 236
speciation analysis (in), 258
- Zeta scores, 190
- Zinc,
determination (in) rice, 185
speciation analysis, 546, 558