

Index

a

- 7-AAD 2/17
- absolute detection limit 1/378
- absorption 1/427
- absorption coefficient 1/40
- absorption index 1/74
- acceptor-donor-acceptor (A-D-A) dyes 2/58
- ACCORD-HMBC 1/244 ff
- accordion-optimized long-range heteronuclear shift correlation methods 1/244
- acetylcholine receptors 2/25
- acetylcholinesterase 2/21
- acetyltransferase 2/21
- ACFs 2/483
- achievements 2/163 ff
 - atmospheric pressure chemical ionisation (APCI) 2/163
 - capillary electrophoresis (CE) 2/163
 - capillary zone electrophoresis (CZE) 2/163
 - electrospray ionisation (ESI) 2/163
 - obstacles 2/163 ff
 - TSP 2/163
- acquired immunodeficiency syndrome (AIDS) 2/47
- acridine orange 2/17
- acridinium ester 2/65
- acrylamide quenching 1/141
- actin
 - detection of cytoskeletal proteins 2/17
- activation energy
 - motional 1/278
 - rate constants 1/278
- active air collection methods 1/8
- active vs. passive sampling 1/8
- adenylate cyclase 2/24
- adrenergic receptors 2/25
- adsorbate 1/553, 1/557
- adsorbate 1/508, 1/526 f, 1/560, 1/587, 1/591
- adsorption 1/519, 1/529, 1/531, 1/543, 1/545, 1/552, 1/580, 1/582
 - adsorption geometry 1/535
 - advantage
 - Connes 52
 - Felgett 1/52
 - and limitations 1/417
 - of TXRF 1/399
 - AEAPS (Auger electron appearance potential spectroscopy) 1/508
 - Aequorea victoria* 2/58
 - aequorin 2/12
 - AES (Auger electron spectroscopy) 1/512, 1/591
 - affinity-proteomics 1/358
 - AIDS (acquired immunodeficiency syndrome) 2/47
 - Al³⁺ 2/12
 - Aldrich 2/447
 - Alexa Fluor 2/15
 - Alexa Fluor dyes 2/51
 - alkaline phosphatase 2/50
 - enzyme labels 2/50
 - Alkemade 1/436
 - Alzheimer's disease 2/11, 2/13
 - amalgamation trap 1/451
 - AMDIS 2/495, 2/498
 - amino acid analysis 2/16
 - solid-phase synthesis 2/12
 - 9-amino-6-chloro-2-methoxyacridine 2/11
 - 7-aminocoumarins 2/20
 - 4-amino-5-methylamino-2',7'-difluoro-fluorescein (DAF) 2/14
 - aminopropylsilane 2/84
 - Amplex Red/resorufin 2/14
 - amplitude noise 1/405
 - amylase 2/20
 - analog-to-digital converter 1/387
 - analysis
 - of binding constants 2/128
 - environmental 2/152 ff
 - structural 1/98

- analytical sensitivity 1/376
- ANEP 2/19
- angiotensin II receptor 2/25
- angular dispersion 1/390
- anilides
 - groundwater 2/215
 - LC-MS/MS 2/215
 - natural waters 2/215
 - surface water 2/215
- anion receptors 2/69
- anisotropy 1/149, 1/151, 1/272
 - chemical shielding 1/271
 - dipolar coupling 1/271
- annexin V 2/26
- Anthozoa* species 2/58
- 9-anthroyloxy 2/19
- n*-anthroyloxy fatty acids 1/147
- antibody screening 2/6
- anticoagulant activity 2/24
- antifouling pesticides 2/225
 - LC-ICP-MS (inductive coupled plasma) 2/225
 - organotin 2/225
- anthracene 2/70
- APCI (atmospheric pressure chemical ionisation) 2/183
 - anilides 2/192
 - antifouling 2/199
 - AEO 2/189
 - APEO
 - halogenated 2/191
 - biodegradation 2/195, 2/199
 - biological fluids 2/194
 - capillary zone electrophoresis (CZE) 2/186
 - carbamates 2/193
 - coconut diethanol amide (CDEA) 2/189
 - drugs
 - metabolites 2/184
 - drugs and diagnostic agents 2/184
 - dyes 2/186
 - estrogenic compounds 2/186
 - explosives
 - metabolites 2/187
 - FIA-MS 2/190
 - FIA-MS/MS 2/190
 - fruits 2/193, 2/197
 - fruit drinks 2/197
 - groundwater 2/192, 2/194, 2/196, 2/199
 - haloacetic acids 2/187
 - halogenated APEOs 2/191
 - herbicides 2/192
 - heterocyclic compounds 2/188
 - interlaboratory study 2/194
 - LAS 2/189, 2/191
 - LC-MS 2/190
 - anilides 2/185
 - antifouling pesticides 2/185
 - carbamates 2/185
 - diagnostic agents 2/185
 - drugs 2/185
 - dyes 2/185
 - estrogenic compounds 2/185
 - explosives 2/185
 - fungicides 2/185
 - general 2/185
 - haloacetic acids 2/185
 - herbicides 2/185
 - industrial effluents 2/185
 - municipal wastewaters 2/185
 - organophosphorous compounds 2/185
 - pesticides 2/185
 - pharmaceuticals 2/185
 - phenoxycarboxylic acids 2/185
 - phenolic compounds 2/185
 - phenols 2/185
 - phenylureas 2/185
 - polycyclic aromatic hydrocarbons 2/185
 - quaternary amines 2/185
 - sulfonic acids 2/185
 - sulfonylureas 2/185
 - surfactants 2/185
 - thiocyanates 2/185
 - thioureas 2/185
 - toluidines 2/185
 - triazines 2/185
 - LC-MS/MS 2/190
 - N-methylcarbamate pesticides 2/193
 - miscellaneous 2/199
 - MS/MS 2/195 f
 - MS/MS library 2/194
 - natural waters 2/198
 - NPEO 2/189
 - NPEO-sulfate 2/189
 - organophosphorus 2/194
 - biodegradation products 2/194
 - phenolic compounds 2/197
 - photodegradation 2/195
 - quantification 2/191 ff
 - pesticides 2/192
 - phenols 2/188
 - quantification 2/189
 - phenoxy carboxylic acids 2/195
 - phenylureas 2/196
 - polycyclic aromatic hydrocarbons (PAH) 2/187 f
 - quaternary amines 2/192
- review
 - dyes 2/185

- general 2/185
- pesticides 2/185
- surfactants 2/185
- rivers 2/198
- river water 2/192 f, 2/199
- secondary alkane sulfonate (SAS) 2/189
- sediment 2/197
- sulfonylureas 2/196
- surface water 2/196, 2/198
- surfactants 2/189 f
- thiocyanates 2/192
- thioureas 2/196
- tin-containing pesticide 2/201
- toluidines 2/192
- triazines 2/197 ff
- triazole herbicides 2/199
- ungicides 2/192
- vegetables 2/193
- water 2/196 f, 2/198
- APCI-LC-MS/MS
 - heterocyclic compounds 2/188
 - phenols 2/188
- APD (avalanche photodiodes) 2/27
- APECS (Auger photoelectron coincidence spectroscopy) 1/557
- APFIM (atom probe field ion microscopy) 1/510
- API (atmospheric pressure ionization) 2/183 ff
 - reviews 2/184
- apoptosis 2/11, 2/26
- applications
 - special 1/103
- APS (appearance potential spectroscopy) 1/508
- aqueous matrices
 - eluates of soil samples 2/153
 - groundwater 2/153
 - leachates 2/153
 - surface waters 2/153
 - wastewaters 2/153
- ARAES (angle resolved AES) 1/514
- Arc 1/477, 1/484
- ARC procedures 2/251
- argon ion laser 2/40, 2/27
- Argonne Protein Mapping Group 2/8
- ARIPES (angle resolved inverse photoemission spectroscopy) 1/536
- aromatic sulfonates 2/154
- ARPES (angle resolved photoelectron spectroscopy) 1/506
- artificial enzymes
 - by molecular imprinting 2/71
- ARUPS (angle resolved ultraviolet photoemission spectroscopy) 1/506, 1/537, 1/584
- ARXPS (angle resolved X-ray photoelectron spectroscopy) 1/514, 1/587
- ascorbic acid 2/15
- atmospheric pressure chemical ionization (APCI) 2/183 ff
- atmospheric pressure ionization (API) 2/183 ff
- atom reservoir 1/434
- atomic absorption spectrometry 1/421 ff
 - atomisation efficiency 1/441
 - atomiser 1/440
 - block diagram 1/437
 - cold vapor generation technique 1/451 f
 - direct sample introduction 1/452
 - double beam spectrophotometer 1/453
 - dynamic range 1/465
 - electrothermal atomisation 1/443 ff
 - external calibration 1/465
 - flame atomisation 1/441
 - flow injection 1/449
 - instrumentation 1/436 ff
 - laser ablation 1/452
 - optical set-up 1/453
 - quantitative analysis 1/465 ff
 - quartz furnace 1/467
 - quartz tube atomiser 1/449
 - radiation sources 1/437 ff
 - sample transfer efficiency 1/440
 - single beam spectrophotometer 1/453
 - solid sample introduction 1/452, 1/470
 - standard addition technique 1/466
 - transport efficiency 1/469
 - vapour generation techniques 1/447 ff
- atomic spectroscopy, theory 1/421 ff
- atomisation 1/471
- atomiser 1/440
- ATP 2/20
 - AT-Pases 2/20
 - bioluminescent determination 2/20
 - determination 2/65
 - DNA 2/20
 - GTPases 2/20
 - in mitochondria 2/65
 - RNA polymerases 2/20
- ATR (attenuated total reflection) 1/511
 - correction 1/76
 - technique 1/95
 - -FTIR 2/92 ff
 - in vivo monitoring of glucose 2/92
- attached proton test (APT) 2/471
- attenuated total internal reflection (ATR) 1/75, 2/75

- attenuation 1/402
- Auger electron 1/369
- Auger electron appearance potential spectroscopy (AEAPS) 1/508
- Auger electron spectroscopy (AES) 1/512, 1/591
- automatic gain control (AGC) 2/247
- autoradiography 2/39
- auxochrome 1/125
- AV 2/29
- avalanche photodiodes (APD) 2/27
- avidin (AV) 2/29
- azophenol 2/70
- b**
- background correction 1/455 ff
 - by wavelength modulation 1/462
 - continuum source 1/456 f
 - pulsed lamp 1/460
 - self reversal 1/460 f
 - Smith-Hieftje method 1/460 f
 - two line 1/456 f
 - Zeeman 1/458 ff
- background emission 1/434
- background interferences 2/252
- bacterial luciferase genes (“Lux genes”) 2/68
- bacterial luciferases 2/65
- bags 1/11
- Balmer series 1/421
- band shifts 1/109
- bands
 - characteristic 1/102
- baseline 2/451
- baseline correction 2/457
 - batch processes 2/272
 - continuous processes 2/272
 - control charts 2/272
 - feed-back control 2/269, 2/280
 - feed-forward control 2/269, 2/280
 - operational benefits 2/277
 - statistical process control (SPC) 2/272
- bathochromic effect 1/125
- bathochromic shift 2/28
- beenaker cavity 1/476
- Beer-Lambert 1/89
- Beer-Lambert law 1/40, 1/74, 2/75
- bending modes 1/42
- benz[e]indolium Sq660 2/35
- benzindolium heptamethine cyanine dyes 2/34
- benzofuranyl fluorophore 2/11
- BHHCT 2/56
- BIA *see* real-time BioInteraction Analysis
- BiaCore instrument 2/127
- BiaCore system 2/87
- bioanalytical applications 1/344
- bioinformatics 2/6
- biological mass spectrometry 2/502
- biological wastewater treatment
 - alcohol ethoxylates (AEO) 2/175
 - alkyl polyglucosides 2/175
 - fluorine-containing surfactants 2/175
- bioluminescent determination of ATP 2/20
- bioluminescence 2/65
- BioMEMS 2/131
- biomolecular databases 2/8
- biopolymer analysis 1/349
 - sequence mutations 1/349
- biosensor 2/3 ff
 - calorimetric 2/5
 - electrochemical 2/5
 - optical 2/5
 - piezoelectric 2/5
 - technologies 2/5
- biotin 2/29
- BIS (Bremsstrahlung isochromat spectroscopy) 1/536
- bis(alkylsiloxysilyl) complexes of naphthalocynines (SiNPcs) 2/36
- bisindolylmaleimides 2/24
- bisoxonols 2/19
- BLE (bombardment-induced light emission) 1/533
- blood coagulation 2/4
- blotting
 - fluorescent strains for 2/15
- blue-fluorescent N-methylantraniloyl (MANT) 2/24
- BODIPY 2/15 f, 2/16
- BODIPY dyes 2/51
- Bohr energy level 1/422
- Boltzmann’s law 1/426
- boosted hollow-cathode lamp 1/438
- Born-Oppenheimer approximation 1/41
- Bremsstrahlung 1/372
- Brewster angle 1/74, 2/83
- bromacil 2/53
- bromide
 - ion, indicators for 2/13
- Brookhaven protein data bank 2/7 f
- bubblers 1/12
- Bunsen 1/421, 1/436
- c**
- Ca²⁺ 2/12
- Ca²⁺ channel 2/25
- CAE (capillary array electrophoresis) 2/39
- calcein 2/12

- Calcium Green 2/12
- calcium regulation 2/12, 2/23
- calcium transport 2/12
- calibration models 2/444
- calibration tests 2/254
- calibration
 - Raman shift scale 1/60
 - wavelength scale 1/65
- calixarenes 2/69 f
- calmodulin 2/23
 - fluorescently labeled 2/23
- Cambridge Crystallographic Database 2/8
- candidate structures 2/481, 2/484
- canisters 1/11
- capacitively coupled microwave plasma (CMP) 1/476, 1/477
- capillary array electrophoresis (CAE) 2/39
- capillary column technology 2/255
- capillary electrophoresis 1/346
 - affinity chromatography 1/346
 - atomic emission spectroscopy 1/492 ff
 - capillary electrochromatography 1/346
 - capillary isotachopheresis 1/346
 - detection (CE-LIFP)
 - laser-induced fluorescence polarisation 2/55
 - mass spectrometry 1/348
 - micellar electrokinetic chromatography 1/346
- capillary gel electrophoresis 2/39
- carbamates 2/177 ff, 2/193
 - biological fluids 2/194
 - drinking water 2/217
 - estuarine waters 2/217
 - groundwater 2/217
 - hydrolytic degradation 2/217
 - leaches of soil 2/217
 - microbial degradation 2/217
 - quantification 2/216 f
 - natural waters 2/216
 - river water 2/203, 2/217
 - surface water 2/217
- carbohydrate structures 1/351
- carbon-centered fragment 2/473
- carbonic anhydrase 2/13, 2/21
- carboxyfluorescein 2/11
- carriers 2/25
- cartesian geometry 1/395
- CAS 2/446
- caspase protease activity 2/6
- catalase 2/21
- cation receptors 2/69
- CBQCA 2/16
- CCD (charge coupled device) 1/481
- CCSD 2/9
- CE *see* electrophoresis capillary
- CEA *see* electrophoresis capillary array
- CE-AES 1/492 ff
- cell
 - Alzheimer's disease 2/11
 - apoptosis 2/11
 - endocytosis 2/11
 - gas 1/90
 - homeostasis 2/11
 - ion transport 2/11
 - malignancy 2/11
 - membrane-impermeant dyes, incl. stains for dead cells (SYTOX Dyes) 2/17
 - muscle contraction 2/11
 - multidrug resistance 2/11
 - -permeant nucleic acid dye 2/17
 - proliferation 2/11
 - tracers
 - microinjectable 2/57
- cellular
 - uptake of lipids 2/19
 - diagnostics 2/15
- cellulase 2/20
- centering 2/442
- CF-FAB 2/160 ff
 - benzo[a]pyrene conjugates 2/161
 - brominated surfactants 2/160
 - carbamate 2/162
 - collision-induced dissociation (CID) 2/162
 - DNA adducts 2/161
 - drinking water 2/160
 - dyes 2/162
 - explosives 2/161, 2/163
 - flow injection analysis (FIA) 2/161
 - metabolites of surfactants 2/160
 - N-containing pesticides 2/162
 - ozonation 2/161
 - PAH metabolites 2/162
 - PAHs 2/163
 - P-containing pesticides 2/162
 - phenylurea 2/162
 - products of surfactants 2/161
 - raw 2/160
 - seawater 2/160
 - sulfonated azo dyes 2/161
 - sulfonates 2/161
 - surface water 2/160
 - surfactants 2/160
 - wastewater 2/160
- chain conformation statistics 1/297
- channeling-RBS 1/567
- characteristic bands 2/452
- charge coupled device (CCD) 1/481

- charge injection device (CID) 1/481
- charge structures 1/334
- charge transfer 2/251
- chemical abstracts service 2/489
- Chemical Concepts 2/491
- chemical exchange 2/111
 - in NMR 2/111
- chemical interferences 1/454, 1/462
 - in AES 1/487
- chemical ionization 1/331, 2/249, 2/261, 2/407
- chemical ionization process 2/262
- chemical modification 1/353
- chemical shift (CSA) 1/174, 1/272, 1/275, 1/281, 2/471
- chemical shift anisotropy (CSA) 1/174, 1/190, 1/270, 2/99
 - aromatic 1/190
 - dependence on bonding 1/190
 - interaction 1/187, 2/116
 - of ^{15}N 2/116
 - methyl sites 1/190
 - olefinic 1/190
- CHEMICS 2/483
- chemiluminescence 2/65
- Chemometrics Toolbox 2/467
- ChemWindow Spectroscopy 2/502
- chitinase 2/20
- chloride
 - ion, indicators for 2/13
- Cholera Toxin 2/21
- cholesterols 2/15, 2/69
- choline glutamate 2/21
- ChromaTide nucleotides 2/18
- chromoionophore 2/70
- chromophores 2/10, 1/125
 - UV/VIS 2/10
 - near-IR 2/10
- CI conditions 2/249 ff, 2/255
- CI ion source 2/261
- CI ionization processes 2/265
- CI mass spectrometry 2/260, 2/262
- CI process 2/250, 2/261
- CI techniques 2/260
- CID (charge injection device) 1/481
- CID procedure 2/257
- CID process 2/253 f
- CIGAR-HMBC 1/247
- circular dichroism (CD) 1/82, 2/6, 2/93 ff
- circulatory serine proteases 2/24
- classical least squares (CLS) 2/459
- clinical diagnostics 2/4
- CLS 2/459
- cluster analysis 2/455
- CMP 1/476
- CN^- 2/14
- ^{13}C -NMR spectrum prediction 2/473
- CODEX ^{13}C NMR 1/292
 - correlation time 1/292
 - mobile segments 1/292
 - reorientation angle 1/292
- cold vapor generation technique 1/451 f
- collection and preparation of gaseous samples 1/4
- collection and preparation of liquid and solids 1/17
- collision induced dissociation (CID) 2/253
- collisional deactivation 2/250
- collisional quenching 1/45, 1/141, 1/157
- collisional-induced dissociation (CID) 1/337, 2/126
- colloidal gold 2/16, 2/89
- COLOC 2/471
- combinatorial chemistry 2/69
- combined rotation and multiple pulse decoupling (CRAMPS) 1/175, 1/287
- complexing agents 2/154
- compounds
 - atmospheric-pressure chemical ionisation 2/152
 - non-volatile 2/152
 - polar 2/152
 - thermolabile 2/152
 - volatile 2/153
- Compton equation 1/371
- Concanavalin A 2/21
- conclusions 2/226
- confocal 1/138, 1/155
- confocal microscopes 1/85
- conformation
 - molecular 1/578
- conformational states 1/349
- α -conotoxin probes 2/25
- continuous flow FAB (CF-FAB) 2/160
- continuum source background correction 1/456 f
- continuum sources 1/439
- conventional mass spectrometers 2/251
- Coomassie Blue 2/16
- CoroNa Red 2/11
- correlated spectroscopy (COSY) 2/105, 2/471
- correlation 2/451
- correlation by long-range couplings (COLOC) 2/471
- COSY (homonuclear correlated spectroscopy) 1/173, 1/223 ff, 2/471
- COSY/GCCOSY 1/224
- COSY-type spectra 2/483

- coumarin's 2/15
 - coumarine 2/70
 - counting rate 1/405
 - counting statistics 1/404
 - coupling
 - constants 2/471
 - dipolar 1/276
 - ^2H quadrupolar 1/278
 - quadrupolar 1/276
 - CP 1/281f
 - ramped 1/282
 - CP MAS 1/284
 - CPAA (charge particle activation analysis) 1/516
 - CRAMPS 1/175, 1/287
 - creatinine 2/69
 - critical angle of total reflection θ_{crit} 1/398
 - critical penetration depth 1/402
 - critical thickness 1/402, 2/79
 - croconine dyes 2/34
 - cross polarisation (CP) 1/281
 - cross validation 2/461
 - cross-relaxation experiments 2/110
 - cryogenic trapping 1/13
 - cryotrapping-AAS 1/468
 - crystal field 1/133
 - crystal spectrometer 1/391
 - crystallography
 - chemical species specific 1/592
 - chemical state specific 1/587
 - element specific 1/587, 1/592
 - CSA (chemical shift) 1/272, 1/174, 1/275, 1/281, 2/471
 - carboxyl group 1/272
 - CODEX 1/291
 - isotropic chemical shift 1/281
 - isotropic spectra 1/281
 - slow dynamic processes 1/291
 - tensors 1/272
 - CSEARCH 2/483
 - cut-off thickness 2/79
 - CyTMdyes 2/31
 - Cy3TM 2/31
 - Cy3NOS 2/31
 - Cy5TM 2/31
 - cyanide
 - determination of 2/14
 - in blood 2/14
 - cyanine dimers 2/17
 - cyanine dyes 2/17
 - cyclic AMP 2/71
 - cyclic nucleotides 2/24
 - cynine dyes 2/15
 - cysteine 2/15
 - cystic fibrosis 2/13
 - cysticercosis 2/47
 - cytochrome c
 - electron-transfer reaction in 2/86
 - cytochrome P-450 2/22
 - cytological staining 2/15
- d**
- Danish Center for Human Genome Research 2/9
 - dansyl chloride 2/16
 - dansyl fluorophores 2/19
 - DAPS (disappearance potential spectroscopy) 1/508
 - DARC 2/483
 - data analysis 2/445
 - data extraction in EDXRF 1/407
 - data extraction in WDXRF 1/406
 - data processing
 - Fourier transformation 1/187
 - phasing 1/187
 - smoothing function 1/187
 - data treatment 1/404
 - databases
 - spectral 1/99
 - DC arc 1/477, 1/484
 - DCIP 2/14
 - DCP 1/475
 - debsyl chloride 2/16
 - decomposition of organics 1/28
 - ashing 1/28
 - deconvolution 2/391f
 - decoupling 1/283
 - CW 1/283
 - TPPM 1/283
 - deformation vibrations 1/42
 - degeneration factor 1/428
 - DELFI system 2/55
 - DENDRAL 2/483
 - density of states 1/537, 1/551
 - DEPT (distortionless enhancement polarization transfer) 1/215, 2/471, 2/482
 - depth profiling 1/512, 1/531, 1/546f, 1/563, 1/565, 1/572, 1/589
 - descriptive proteomics 2/126
 - detection and determination limits 1/377
 - detection limits 1/418
 - detection of human IgG 2/53
 - detectors 1/59, 1/53, 1/389
 - array 1/53
 - DTGS 1/53
 - MCT 1/53
 - multichannel 1/61, 1/67
 - single channel 1/57

- determination limit 1/378
- deuteration 2/98
 - in NMR 2/98
- deuterium effect 1/143
- deuterium lamp 1/439, 1/456 f
- 2D exchange 1/303
 - isotactic polypropylene 1/303
 - tropolone 1/303
- DFT 2/28
- 2D-gel electrophoresis 1/357
- diabetes 2/6
- diabetes mellitus 2/69
- diagnostic agents 2/154
- diagnostics
 - clinical 2/4
 - drug discovery 2/4
- 2,3-diaminonaphthalene 2/13, 2/14
- dichlorodihydrofluorescein diacetate 2/26
- dichlorofluorescein 2/11
- 2,4-dichlorophenoxyacetic acid (2,4-D)
 - luminol/HRP system 2/65
- dielectric interface 2/72
- 3,3'-diethyloxadicarbocyanine (DODC) 2/34
- difference interferometer 2/83
- diffuse reflection 1/78
- diffuse reflection infrared Fourier transform spectroscopy (DRIFTS) 1/518
- difluorofluoresceins (Oregon Green) 2/11
- dilute liquid crystals 2/99
- diode array UV *see* Photodiode array detection
- diode laser source 1/440
- diode lasers 2/10, 2/27
- 1,2-dioxetane derivatives 2/65
- dioxins 2/257
- dipolar coupling (D) 1/174
- dipolar interaction 1/188 f
 - definition 1/188
 - Pake doublet 1/188
 - powder pattern 1/189
- direct (or second-element)
 - enhancement 1/404
- direct current plasma 1/475
- direct-excitation configuration 1/393
- direct insertion 1/483
- direct liquid introduction (DLI) 2/153, 2/156
- direct sample introduction 1/452
- disappearance potential spectroscopy (DAPS) 1/508
- discoidal bilayered structures 2/99
 - in NMR 2/99
- Discosoma* 2/58
- discriminant analysis 2/455
- dissociation energy 1/434
- dissociation equilibrium 1/463
- dissociation of molecules in a plasma 1/434
- distortionless enhancement polarization transfer (DEPT) 1/215, 2/471, 2/482
- 5,5'-dithiobis-(2-nitrobenzoic acid) 2/14
- 2D *J*-resolved NMR 1/219
- DLI
 - herbicides 2/156
 - pesticides 2/156
- 2D MQMAS 1/317
 - glasses 1/317
 - isotropic shifts 1/317
 - microporous materials 1/317
 - minerals 1/317
- 2D multiple quantum magic angle spinning (MQ/MAS) 1/176
- DNA 2/10
 - analysis 2/7
 - arrays and microarrays 2/18
 - polymerase 2/38
 - sequencing 2/10, 2/39
- 2D NMR
 - homonuclear ^{13}C - ^{13}C 2D correlation experiments 1/293
- 3D NMR 1/173, 1/204
 - connectivity information 1/206
 - HNCA pulse sequence 1/204
- DODC 2/33
- domain structure 1/569
- 1D (one-dimensional) NMR 1/210
- donor/acceptor 1/152
- donor-acceptor-donor (D-A-D) dyes 2/58
- dopamines 2/15, 2/71
- doppler line broadening 1/430
- double beam atomic absorption spectrophotometer 1/453
- double bond
 - conjugated 1/129
- double rotation (DOR) 1/176
- double-focusing 1/336
- double-quantum filtered (2QF) COSY experiment 2/107
- double-quantum spectroscopy 1/295
 - BABA 1/295
- 2D PASS 1/303
- DPH 1/151
- DQ spectroscopy 1/297
 - ^{31}P - ^{31}P DQ MAS 1/297
- DRIFTS (diffuse-reflectance (or reflection) infrared Fourier transform spectroscopy) 1/518
- drinking water 2/256
- drug discovery 2/5
- drugs 2/154
 - ESI-LC-MS/MS 2/203

- MS/MS 2/204
- quantification 2/203 f
- wastewater 2/204
- X-ray contrast media 2/204
- DsRed 2/58
- DTNB 2/14
- dyes 2/154, 2/173, 2/205
 - CZE 2/205
 - MS/MS 2/206
 - wastewater 2/206
- dynamic 1/140 f, 1/198
 - angle spinning (DAS) 1/176
 - proteomics 2/126
 - quenching 1/141
 - range of motional 1/198
 - solid-state ^2H NMR 1/198

e

- easily ionisable element (EIE) 1/465
- echelle grating 1/439, 1/480
- echelle spectrograph 1/481 ff
- E-COSY 2/107
- edited experiments 2/117
- EDX (energy dispersive X-ray analysis) 1/524, 1/567
- ED-XRF instrumental configurations 1/393
- EEAES (electron excited Auger electron spectroscopy) 1/512
- EELFS, EXELFS (extended electron energy loss fine structure) 1/529, 1/535, 1/562
- EELS *see* HREELS
- effective path length 2/76
- EI conditions 2/253
- EI interferences 2/249
- EI scan program 2/248
- EI spectra 2/248
- EI/CI ion source 2/252
- Einstein coefficients 1/427 ff
- Einstein transition probability 1/427
- ejection techniques 2/252
- elastic or Rayleigh scattering 1/371
- electroanalysis 2/3
- electrochemically generated chemiluminescence (ECL) 2/65
- electrochemiluminescence 2/65
- electrodeless discharge lamp (EDL) 1/439
- electromagnetic spectrum 1/367
- electromagnetic wave 1/39 f
- electron ionisation 1/331
- electron pressure in a plasma 1/433
- electron temperature 1/435 f
- electronic states 1/508, 1/584
- electronic structure 1/539, 1/543, 1/571, 1/577
- electrophoresis
 - capillary 2/4
 - capillary array 2/4
 - gel 2/4
- electroreflectance 1/561
- electrospray (ESI) MS 2/122
- electrospray ionization (ESI) 1/329, 1/333, 2/201 ff
- electrospray ionization mass spectroscopy (ESI-MS) 2/123
- electrothermal atomisation 1/443 ff
- electrothermal vaporisation 1/483, 1/484
- element analysis *see* process analysis
- elemental composition 1/509 f, 1/513, 1/516, 1/524, 1/540, 1/543, 1/548, 1/556, 1/565 ff, 1/574, 1/589,
- elemental distribution 1/548, 1/554, 1/569
- ELF *see* enzyme-labeled fluorescence
- ELISA (enzyme-linked immunosorbent assay) 2/50
- ellipsometric sensors 2/82
- ellipsometry 1/528, 2/82
- Ellman's reagent 2/14
- emission spectrum 1/382
- EMPA (electron microprobe analysis) 1/524
- EMS (electron momentum spectroscopy) 1/522
- end-fire coupling 2/82
- endocrine disrupting chemicals (EDC) 2/87
- endocytosis 2/11
- endogenous glycosidase activity 2/20
- endoplasmic reticulum 2/22
 - probes for 2/22
- energy level diagram 1/425
- energy noise 1/405
- energy-dispersive XRF 1/393
- energy-gap law 1/143
- enhanced Raman scattering 1/119
- enhancement 1/403
- environmental analysis 2/254
- environmental monitoring 2/5
- Environmental Protection Agency 2/447
- environmental waters
 - antibiotic 2/203
 - sulfonamides 2/203
 - tetracyclines 2/202
- enzymatic exopeptidolytic cleavage 1/351
- enzyme-labeled fluorescence (ELF) 2/15
- enzyme-linked immunosorbent assay (ELISA) 2/50
- EPA methods 2/256
- EPECS (Auger photoelectron coincidence spectroscopy) 1/514
- epifluorescence 1/155

- epilepsy 2/13
- EPIOS 2/483
- epitope analysis 2/128
- epitope mapping 2/6
- EPMA (electron probe microanalysis) 1/524, 1/567
- EPXMA (electron probe X-ray Microanalysis) 1/524
- ERCS (elastic recoil coincidence spectrometry) 1/522
- ERDA or ERD (elastic recoil detection analysis) 1/520
- ESCA [electron spectroscopy for chemical applications (originally analysis)] 1/587
- ESD (electron stimulated desorption) 1/525
- ESDIAD (electron stimulated desorption ion angular distributions) 1/526
- ESI (electrospray ionization) 1/329, 1/333, 2/200 ff
 - AEO 2/209 f
 - agricultural soil 2/222
 - alcohol ethoxylate (AEO) 2/213
 - alkyl etoxysulfates (AES) 2/211
 - alkylphenols 2/208
 - alkyl polyglucoside 2/212
 - alkyl sulfates (AS) 2/211
 - anilides 2/215
 - antibiotic 2/203
 - azo dyes 2/206
 - biodegradation 2/212
 - bisphenol A 2/208
 - CE-MS 2/213
 - chemical degradation 2/222
 - coastal waters 2/211
 - coconut diethanol amide (CDEA) 2/213
 - complexing agents 2/203
 - crop 2/222
 - CZE 2/205
 - degradation products 2/220, 2/222 f
 - diagnostic agents 2/203
 - disinfection byproducts 2/207
 - drinking water 2/203, 2/217 ff, 2/223
 - drugs 2/203
 - ditallow-dimethylammonium chloride (DTDMAC) 2/212
 - dyes 2/205
 - metabolites 2/205
 - EDTA 2/203
 - effluents 2/211
 - electropherogram 2/200
 - estrogenic compounds 2/206
 - estuaries 2/212
 - estuarine waters 2/217, 2/220 f
 - explosives 2/206
 - fruits 2/222
 - fungicides 2/215
 - German Bight 2/212
 - groundwater 2/217 ff, 2/223
 - haloacetic acids 2/207
 - halogenated APEO 2/211
 - halogenated NPEO 2/210
 - herbicides 2/215
 - hydrolytic degradation 2/217
 - imidazolinone herbicides 2/225
 - insource-CID 2/211
 - ion chromatograph 2/214
 - LAS 2/212 f
 - LC-MS 2/202, 2/213
 - anilides 2/202
 - antifouling pesticides 2/202
 - carbamates 2/202
 - complexing agents 2/202
 - drugs and diagnostic agents 2/202
 - dyes 2/202
 - estrogenic compound 2/202
 - explosives 2/202
 - fungicides 2/202
 - haloacetic acids and disinfection byproducts 2/202
 - herbicides 2/202
 - organoarsenic compounds 2/202
 - organophosphorus compounds 2/202
 - pesticides 2/202
 - phenols 2/202
 - phenolic pesticides 2/202
 - phenoxycarboxylic acids 2/202
 - phenylureas 2/202
 - polycyclic aromatic hydrocarbons 2/202
 - quaternary amines 2/202
 - sulfonic acids 2/202
 - sulfonylureas 2/202
 - surfactants 2/202
 - thiocyanate compounds 2/202
 - thioureas 2/202
 - toluidines 2/202
 - toxins 2/202
 - triazines 2/202
 - leaches of soil 2/217
 - metabolites 2/209 f, 2/222, 2/224
 - N-methylglucamides 2/212
 - microbial degradation 2/217
 - miscellaneous 2/225
 - MS/MS 2/204, 2/206 f, 2/209 ff, 2/216, 2/219, 2/221, 2/224 f
 - natural waters 2/221
 - neutral loss (NL) 2/209 f
 - NPEO sulfates 2/213
 - organoarsenic compounds 2/207

- perfluorooctanesulfonate (PFOS) 2/212
 - perfluorooctanoic acid (PFOA) 2/212
 - pesticides 2/215
 - phenols 2/208
 - photolysis products 2/222
 - quantification 2/203 ff
 - quaternary amines 2/215
 - quaternary ammonium compounds 2/214
 - neutral loss (NL) 2/209
 - nonylphenolpolyether carboxylate (NPEC) 2/210
 - North Sea 2/212
 - NPEO 2/209 ff
 - OPEO 2/211
 - photolysis 2/224
 - physicochemical degradation 2/224
 - review
 - dyes 2/202
 - general 2/202
 - pesticides 2/202
 - surfactants 2/202
 - sulfonates 2/202
 - toxins 2/202
 - river water 2/203, 2/217, 2/221, 2/223
 - sea water 2/212
 - secondary alkane sulfonates (SAS) 2/213
 - sediment 2/212
 - SFC-MS 2/223
 - sulfonamides 2/203
 - sulfonates 2/200
 - sulfonic acids 2/208
 - surface water 2/217 ff
 - surfactants 2/209
 - tetracyclines 2/202
 - thiocyanate compounds 2/215
 - toluidines 2/215
 - toxins 2/213
 - Waddensea marinas 2/212
 - wastewater 2/203, 2/204, 2/206, 2/210 f, 2/218
 - wastewater inflows 2/211
 - water 2/220
 - X-ray contrast media 2/204
 - ESI-LC-TOFMS
 - aromatic sulfonamides 2/204
 - sulfonates 2/204
 - textile wastewater 2/204
 - ESI-MS (electrospray ionization mass spectroscopy) 2/123
 - esters 2/11
 - estrone-3-glucuronide (E3G) 2/87
 - ethidium bromide 2/17
 - Euclidean distance 2/449, 2/472
 - europium chelates 2/56
 - evaluation of spectra 2/444
 - evanescent field 1/75 f
 - penetration depth 1/76
 - evanescent wave spectroscopy 2/71
 - evanescent wave-based techniques 2/69
 - EWCRDS (evanescent wave cavity ring-down spectroscopy) 1/530
 - EXAFS (extended X-ray absorption fine structure) 1/529, 1/535, 1/562, 1/584
 - excimer 1/154
 - excitation shift 1/146
 - excitation temperature 1/429, 1/435 f
 - EXELFS (extended energy loss fine structure) 1/529
 - ExPASy *see also* expert protein analysis system 2/8
 - expert protein analysis system 2/7
 - explorative data analysis 2/444
 - explosives 2/154
 - degradation 2/207
 - degradation products 2/206
 - groundwater 2/206
 - quantification 2/207
 - EXSY (EXchange Spectroscopy) 1/231
 - external ion sources 2/252 f
 - extraction and preparation of samples 1/14
- f**
- FAB (fast-atom bombardment mass spectrometry) 1/333, 1/574, 2/160 ff
 - benzo[a]pyrene conjugates 2/161
 - brominated surfactants 2/160
 - carbamate 2/162
 - collision-induced dissociation (CID) 2/162
 - DNA adducts 2/161
 - drinking water 2/160
 - dyes 2/162
 - explosives 2/161, 2/163
 - flow injection analysis (FIA) 2/161
 - metabolites of surfactants 2/160
 - N-containing pesticides 2/162
 - ozonation 2/161
 - PAH metabolites 2/162
 - PAHs 2/163
 - P-containing pesticides 2/162
 - phenylurea 2/162
 - products of surfactants 2/161
 - raw 2/160
 - seawater 2/160
 - sulfonated azo dyes 2/161
 - sulfonates 2/161
 - surface water 2/160
 - surfactants 2/160
 - wastewater 2/160

- FAD 2/63
- FAM 2/40
- far-red 2/10
- fassel 1/473
- fast atom bombardment (FAB) 1/333, 1/574, 2/160 ff
- fatty acids 2/15
- FCS 2/19
- α -fetoprotein (AFP) 2/61
- FIA (flow injection analysis) 2/65
- FIA-AES 1/492 ff
- FIA-MS
 - surfactants 2/175
- FIA-MS/MS
 - surfactants 2/175
- fiber and waveguide SPR 2/88
- fiber optics 2/82
- fibronectin 2/24
- field desorption 1/332
- field effect transistor 1/387
- figures-of-merit 1/376
- films
 - Langmuir-Blodgett films 1/529, 1/560, 2/91
- filter
 - notch 1/62
 - Rayleigh 1/61
- filtered experiments (in NMR) 2/117
- FIM (field ion microscope) 1/541
- fingerprinting capabilities 2/255
- firefly luciferase 2/65
- FISH (fluorescence in situ hybridization) 2/18
- FlTC see fluorescein isothiocyanate
- Fiveash Data 2/447
- flame AAS 1/441
 - burning velocity 1/443
 - gas mixtures 1/443
 - oxidising flame 1/443
 - reducing flame 1/443
- flame atomisation 1/441
- flame atomiser 1/471
- flavinmononucleotide (FMNH₂) 2/65
- flow cytometry 1/135, 1/138, 1/153, 2/15
 - standardization reagents
- flow injection analysis (FIA) 2/65
- flow injection analysis and atomic emission spectroscopy 1/492 ff
- fluorescamine 2/16
- fluorescein casein 2/20
- fluorescein diacetate 2/11
- fluorescein isothiocyanate 2/29
- fluorescein's cyanines 2/15
- fluoresceins 2/28
- fluorescence 1/138
 - correlation spectroscopy (FCS) 1/155, 2/19
 - detection in HPLC 2/395 ff
 - enzyme-labeled 2/15
 - laser-induced 2/4, 2/39
 - lifetime 1/139, 2/28
 - polarisation 1/148, 1/151
 - polarisation immunoassay (FPIA) 2/55
 - polarisation spectroscopy 2/54
 - quencher 1/139
 - recovery after photobleaching (FRAP) 1/155, 2/19
 - resonance energy transfer (FRET) 1/152 f, 2/35, 2/56
 - sensors 1/156
 - spectroscopy 2/7
 - time-resolved 2/10
- fluorescent
 - dye loaded micro- and nanoparticles 2/15
 - dyes 2/7
 - enzymes 2/7
 - isothiocyanates 2/16
 - latex particles 2/15
 - polymixin B analogs 2/24
 - probes 2/10 f
 - proteins 2/7
- fluorescently labeled calmodulin 2/23
- fluoride
 - ion, indicators for 2/13
- fluorinated fluoresceins 2/51
- fluorophores 2/10
- fluorophores
 - near-IR 2/10
 - visible 2/10
- FluoZin 2/13
- FMIR (frustrated multiple internal reflection) 1/511
- food analysis 2/5
- foot-and-mouth disease virus 2/87
- forbidden transition 1/375
- forward search 2/496
- Fourier transform infrared spectrometry (FTIR) 2/92 ff
 - conformational changes in proteins 2/92
 - protein unfolding 2/92
 - secondary structure content 2/92
- Fourier transform ion cyclotron resonance 1/341
- Fourier transform ion cyclotron resonance (FTICR) detector 2/124
- Fourier transform ion cyclotron resonance instruments 2/124
- Fourier transform ion cyclotron resonance spectrometer (FT-ICR) 2/127

- FPA 1/53
 fragmentations 1/350
 Franck-Condon factor 1/45
 Franck-Condon state 1/45, 1/144
 FRAP 2/19
 free induction decay (FID) 1/186
 frequencies
 – characteristic 1/99
 – group 1/99
 Fresnell equations 2/72
 FRET 2/35
 frustrated total internal reflection (FTR) 2/81
¹⁹F solid-state NMR 1/287
 – biomembranes 1/287
 – fluoropolymers 1/287
 FT RAIRS (Fourier transform reflection-absorption infrared spectroscopy) 1/559
 FTIR (Fourier transform infrared spectroscopy) 2/92 ff
 – in vivo monitoring of glucose 2/92
 FTIR microscopy 2/92 ff
 – in vivo monitoring of glucose 2/92
 FTIRRRAS *see* IRRAS
 full scan monitoring 2/251
 full spectra search 2/448
 full width at half of the maximum peak height (FWHM) 1/182
 Fullerenes 2/387
 functional genomics 2/3 ff
 fundamental parameter method 1/414
 fundamental parameter technique 1/410
 fura-2 2/12
 furans 2/257
 Fura-Zin 2/13
- g**
- GABA_A receptor 2/25
 galactic 2/447
 galactose 2/21
 gallium-aluminium-arsenide laser diode 2/27
 gas chromatography and atomic emission spectroscopy 1/491 ff
 gas chromatography-atomic absorption spectrometry (GC-AAS) 1/467 ff
 gas chromatography coupled with mass spectrometric detection (GC-MS) 1/34, 2/251 f
 gas chromatography/ion trap mass spectrometry (GC/ITMS) 2/244 ff, 2/251 ff, 2/255 ff, 2/262, 2/265
 gas flow proportional counters 1/384
 gas phase ionisation 1/331
 gas temperature 1/435 f
 GC ion trap mass spectrometer 2/245
 GC/chemical ionization-ITMS 2/260
 GC/CI MS 2/251
 GC/EI MS 2/251
 GC/EI-ITMS analyses 2/252
 GC/ITMS 2/245, 2/247, 2/251 ff, 2/255 ff, 2/259, 2/262, 2/265
 GC/MS 1/344, 2/251 f
 GC/MS acquisition 2/247
 GC/MS experiments 2/248
 GC/MS quadrupole-based systems 2/244
 GC/MS/MS 2/253
 GC/MS/MS procedures 2/251
 GC/MS/MS ion traps 2/254
 GC-AES 1/491 ff
 GC-MS (gas chromatography coupled with mass spectrometric detection) 2/152
 – analysis 2/153
 GCOSY 1/173
 GDMS (glow discharge mass spectrometry) 1/533
 GDOES (glow discharge optical emission spectrometry) 1/531
 GE *see* electrophoresis gel
 gel electrophoresis 2/39
 gene expression 2/13
 gene probes 2/10
 genome 2/8
 – map of the human 2/8
 – project, human 2/3
 genomics 2/3 ff
 – functional 2/4
 – polymorphism 2/4
 gentamicin 2/87
 GHMBC 1/173
 GHMQC 1/173
 GIS (grazing incidence spectroscopy) 1/559
 GIXFR (grazing incidence X-ray fluorescence) 1/581
 GIXFR (grazing-exit X-ray fluorescence) 1/581
 glowbar 1/50
 glow discharge 1/479
 glucose 2/69
 glucose oxidase 2/14
 glucose-6-phosphate dehydrogenase 2/14
 glucuronidase 2/20
 β-glucuronidase 2/20
 glutathione 2/14
 glutathione transferase 2/14
 glutathione 2/15
 glycosidase 2/20
 – endogenous activity 2/20
 glycosylations 1/351
 Golgi apparatus 2/22

- probes for 2/22
- gradient 1/232 f
- gradient 1D NOESY 1/255
- gradient experiments 1/233
- GCOSY 1/233
- GNOESY 1/233
- GTOCSY 1/233
- GRAMS 2/467, 2/501
- graph theory 2/482
- graphite furnace (atomiser) 1/443 ff
- graphite furnace, L'vov platform 1/445
- graphite furnace, temperature profile 1/446
- graphite furnace, temperature program 1/447
- grating couplers 2/81, 2/83
- green fluorescent proteins 2/15, 2/58
- Greenfield 1/473
- Grimm 1/479
- Grotrian diagram 1/425
- group frequencies 1/44, 1/100, 2/452
- h**
- Hahn echo 2/104
- half width of atomic lines 1/437 f
- half-integer quadrupole nuclei 1/315
- fourth-rank anisotropic broadening 1/315
- second-order quadrupolar broadening 1/315
- haloacetic acids 2/154
- hard ionisation 1/331
- ^1H decoupling 1/282
- TPPM 1/282
- ^1H DQ MAS
- hydrogen-bonded protons 1/306
- kinetics of hydrogen bond breaking and formation 1/306
- order parameter 1/306
- proton-proton distances 1/306
- HEIS (high energy ion scattering) 1/543, 1/565
- Helicobacter Pylori 2/54
- helium-neon laser 2/40
- hemicyanine dyes 1/143
- hemoglobin 2/69
- HeNe laser 2/31
- heparin 2/24
- heparin-binding growth factors 2/24
- 4,4'-bis (1',1',1',2',2',3',3',-heptafluoro-4',6'-hexanedion-6'-yl)-chlorosulfo-o-terphenyl (BHHCT) 2/56
- herbicides
- benzidines 2/154
- carbamates 2/154
- chlorinated 2/154
- quaternary ammonium 2/154
- phenoxyacetic acid 2/154
- triazine 2/154–
- heterogeneity 1/417
- heterogeneous catalysis 1/582
- heteronuclear 2D correlation (HETCOR) 1/176
- heteronuclear correlation (HETCOR) 1/307
- ^1H - ^{13}C WISE (wideline separation) 1/307
- heteronuclear MQC (HMQC) 1/307
- heteronuclear SQC (HSQC) 1/307
- homonuclear decoupling in t_1 1/307
- recoupled polarisation transfer (REPT) 307
- rigid and mobile chemical moieties 1/307
- heteronuclear correlation spectroscopy 2/96 ff
- heteronuclear dipolar couplings 1/310
- dipolar couplings 1/310
- internuclear distances 1/310
- REPT 1/310
- heteronuclear multiple bond correlation (HMBC) 2/471
- heteronuclear multiple quantum coherence (HMQC) 2/114 ff, 2/471
- heteronuclear NMR experiments 2/94 ff, 2/113
- heteronuclear shift correlation 1/234
- heteronuclear single quantum coherence (HSQC) 2/471
- ^1H - ^1H DQ MAS
- BABA recoupling sequence 1/305
- dipolar coupling constant 1/305
- spinning-sideband patterns 1/305
- HIAA (high energy ion activation analysis) 1/516
- high-performance liquid chromatography (HPLC) 2/10
- high-resolution gas chromatography (HRGC) 2/257
- high-resolution mass spectrometry (HRMS) 2/257
- high-resolution spectra
- double rotation (DOR) 1/315
- dynamic-angle spinning (DAS) 1/315
- hindered rotors 1/151
- histidine 2/15
- histochemistry 2/15
- hit list 2/451
- Hitachi Ltd. 2/266
- HIV-1 protease inhibitor 2/87
- ^1H MAS NMR 1/287
- HMBC (heteronuclear multiple bond correlation) 1/173, 1/242, 2/471
- HMQC (heteronuclear multiple quantum coherence) 1/173, 1/234, 2/471, 2/483

- hollow cathode discharge 1/479
 - hollow-cathode lamp (HCL) 1/437, 1/460f
 - homeostasis 2/11
 - homonuclear 2D NMR 1/223
 - homonuclear dipolar coupling 1/285, 1/290
 - BABA 1/290
 - C7 1/290
 - DRAMA 1/290
 - DRAWS 1/290
 - DREAM 1/290
 - HORROR 1/290
 - RFDR 1/290
 - homonuclear dipolar-coupled spins 1/290
 - internuclear distance 1/290
 - homonuclear Hartmann-Hahn (HOHAHA) 2/109
 - homonuclear TOCSY, total correlated spectroscopy 1/226 ff
 - homonuclear two-dimensional
 - double-quantum (DQ) coherence 1/294
 - INADEQUATE 1/294 ff
 - HOMSTRAD (HOMologous STRucture Alignment Database) 2/9
 - horseradish peroxidase (HRP) 2/16, 2/50, 2/65
 - labelin immuno assay 2/50
 - HOSE code 2/473, 2/478, 2/483
 - HREELS, HEELS (high resolution electron energy loss spectroscopy) 1/533
 - HRMS 2/258
 - HRP 2/15 f
 - ¹H solid state NMR
 - CRAMPS 1/299
 - high-resolution 1/298
 - windowless homonuclear decoupling 1/299
 - HSQC (heteronuclear single quantum coherence) 1/173, 1/236, 2/471
 - human chorionic gonadotropin (hCG) 2/56
 - β -subunit of 2/56
 - human creatine kinase MB (CK-MB) 2/87
 - human genome project 2/3
 - human IgG 2/53
 - human phenylalanine hydroxylase 2/87
 - human serum albumin (HSA) 2/56
 - Hybrid Q-TOF MS 2/124
 - hybrid time-of-flight mass spectrometers 1/340
 - hydride generation technique 1/448 ff
 - hybridization detection 2/18
 - hydrocarbons 2/261
 - hydroxy carbonyls 2/261
 - hydroxyl number 1/110
 - 8-hydroxypyrene-1,3,6-trisulfonic acid 2/11
 - hydroxystilbamidine 2/17
 - hyperchromic effect 1/125
 - hyperfine structure line broadening 1/431
 - hypericin 2/24
 - hyphenated 2D NMR 1/174
 - hyphenated techniques 1/466 ff
 - hyphenated-2D NMR experiments 1/252
 - GHSQC-TOCSY 1/252
 - HC-RELAY 1/252
 - HMQC-TOCSY 1/252
 - HXQC-COSY 1/252
 - hypochromic effect 1/125
 - hypocrellins 2/24
 - hypsochromic effect 1/125
 - hypsochromic shift 2/28
- i**
- IASys system 2/85
 - IBIS biosensors 2/87
 - IBSCA (ion beam spectrochemical analysis) 1/533
 - IC/MS 1/344
 - ICP (inductively coupled plasma) 1/473 ff
 - ICR mass spectrometry 2/252
 - identity search 2/497
 - IETS (inelastic electron tunneling spectroscopy) 1/535
 - (IGF)-binding protein-2 2/87
 - illumination
 - sample 1/113
 - ILS (inverse least square) 2/462
 - immunoaffinity extraction 1/345
 - immunoassay 2/7, 2/10, 2/15, 2/47
 - competitive 2/47
 - non-competitive 2/47
 - sandwich 2/47
 - immunochemistry
 - with NIR fluorophores 2/51
 - with visible fluorophores 2/50
 - immunochromatography 2/15
 - immunohistochemistry 2/15
 - stains for 2/15
 - immunosensor 2/53
 - IMPEACH-MBC 1/246
 - imprinted polymers 2/71
 - in situ* hybridization 2/16
 - in vivo* dynamics
 - cytoskeleton 2/17
 - in vivo* glucose monitoring 2/69
 - INADEQUATE 1/232, 2/471
 - INCOS 2/496
 - indirect (or third-element) enhancement 1/404
 - INDO 2/28

- indo-carbocyanines 2/19
- indolium heptamethine cyanine dyes 2/32
- indolium Sq635 2/35
- indolium-squaraine dyes 2/34
- inductively coupled plasma (ICP) 1/473 ff
- inelastic or Compton scattering 1/371
- INEPT (insensitive nuclei enhanced by polarization transfer) sequence 1/214, 2/114
- infinitely thick or massive samples 1/402
- influence coefficient method 1/410, 1/413
- infrared and Raman spectroscopy 2/92 ff
 - in bioanalysis 2/92 ff
- infrared interfaces 2/416
- infrared microscopes 1/85
- infrared spectroscopy 1/41, 2/6
- in-house database 2/446
- in-plane 1/42
- INS (ion neutralisation spectroscopy) 1/538, 1/552
- instrumental tune-up tests 2/254
- instruments
 - single beam 1/64
- insulin 2/47
- intercalating dyes 2/18
- interface 1/529, 1/579, 2/152 ff
 - atmospheric pressure 2/155
 - atmospheric-pressure chemical ionisation (APCI) 2/152 f
 - continuous flow FAB (CF-FAB) 2/153, 2/160
 - direct liquid introduction (DLI) 2/152, 2/153, 2/156
 - electrospray (ESI) 2/153
 - environmental analyses 2/155
 - fast atom bombardment (FAB) 2/153, 2/160
 - hermospray (TSP) 2/153
 - ion spray 2/155
 - moving-belt (MBI) 2/152 f, 2/156
 - particle beam (PBI) 2/153, 2/157
 - soft ionisation 2/172
- interference 2/89
 - chemical 1/454
 - fringes 1/96
 - spectral 1/454 ff
- interferogram 1/51
- interferometer 1/50
- interferometry 2/83
- intermolecular ring current 1/297
- internal conversion 1/45, 1/138 f, 1/143
- internal energy 2/249
- internal standardization 1/412
- internal standards 1/410
- intersystem crossing 1/45, 1/138 f
- intracellular ion activity
 - chloride 2/13
- intracellular pH 2/11 f
 - estimating 2/11
- intramolecular processes 1/45
- intrinsic zone 1/387
- inverse 1/174
- inverse least squares (ILS) 2/462
- iodide
 - ion, indicators for 2/13
- ion association reactions 2/262
- ion attachment mass spectrometry (IAMS) 2/262
- ion attachment reactions 2/263
- ion current 2/247
- ion cyclotron resonance (ICR) spectrometers 2/249
- ion detection 1/340
- ion mobility spectrometry 2/123
- ion transport 2/11
- ion trap 2/247 ff, 2/250 f, 2/254 ff
 - mass spectrometry 2/244, 2/250, 2/265
- ionisation 1/432
- ionisation buffer 1/465
- ionisation in flames 1/464
- ionisation interference 1/433
- ionisation temperature 1/435 f
- ionisation, degree of in a plasma 1/432
- ionization method 2/249
- ionization modes 2/247
- ionization time 2/247 f
- ion-molecule processes 2/248
- ion-molecule reactions 2/247, 2/249, 2/251, 2/253
- ion-selective electrodes 2/70
- IPMA, SIMP (scanning ion microprobe) 1/539
- IPS, IPES (inverse photoelectron spectroscopy) 1/536
- IR spectroscopy 1/41, 2/6
- IRD™ dyes 2/32
- IRMentor Pro 2/452
- IRRAS (infrared reflection absorption spectroscopy) 1/75
- IRRAS, IRAS (infrared reflection-absorption spectroscopy) 1/559
- IR-Tutor 2/452
- isoluminol 2/65
- isomer generation 2/481
- isothiocyanates 2/16
- isotope labeling
 - in NMR 2/97
- Isotopic labeled compounds by atomic emission detection 2/423

ISS (ion scattering spectrometry) 1/565
 ITMS 2/261
 IUPAC name of the X-ray line 1/373

j

2J , 3J -HMBC 1/248
J-modulated spin echo experiments 1/213
 – APT 1/213
 – DEPT 1/213
 – INEPT 1/213
 JOE 2/40
 jump ratio 1/371

k

K^+
 – indicators for 2/10
 Karplus equation 2/106
 kinetic energy 1/336
 Kirchhoff 1/421, 1/436
K-matrix 2/459
 Kramers-Kronig relation 1/74
 Kramers-Kronig transformation 1/81
 Kretschmann configuration 2/85
 KRIPES (*k*-resolved inverse photoemission spectroscopy) 1/536
 Kr laser 2/31
 KRS-5 2/78
 Kubelka-Munk relation 1/79

l

L'vov platform 1/445
 labeling
 – isotopic 2/38
 – labelling 2/17
 – detection 2/17
 – quantitation 2/17
 lactate 2/69
 Lambert-Beer law 1/367, 1/429 f, 1/465, 2/75
 laminin 2/24
 laminar flow burner 1/441 ff
 LAMMA, or LAMMS, or LMMS
 (laser microprobe mass analysis or spectroscopy) 1/533
 Langmuir-Blodgett 1/512
 Langmuir-Blodgett films 1/529, 1/560, 2/91
 lanthanide chelates 2/55
 Larmor frequency 1/172
 Larmor relation 1/172
 laser ablation 1/452, 1/478, 1/484, 1/485
 laser desorption 1/329, 1/334 ff
 laser induced fluorescence (LIF) 2/39
 laser induced fluorescence polarisation 2/55
 – in capillary electrophoresis detection (CE-LIFP) 2/55

laser plasma 1/478
 latent variables 2/453
 latex particles
 – fluorescent 2/15
 layered synthetic multilayers 1/391
 LC-AES 1/492 ff
 LC-MS 2/152 ff, 2/163, 2/226 f
 – achievements 2/163 ff
 – alkylpolyethersulfate 2/164
 – capillary electrophoresis (CE) 2/163
 – capillary zone electrophoresis (CZE) 2/163
 – conclusions 2/226
 – history 2/152 f
 – library 2/227
 – non-ionic polyethylene glycol (PEG) surfactant 2/164
 – non-ionic polypropylene glycol (PPG) surfactant 2/164
 – obstacles 2/163 ff
 least squares regression 2/456
 leave-one-out strategy 2/461
 lectins 2/21
 LEED (low energy electron diffraction) 1/527
 legionella pneumophila serogroup 1 (LPS1) 2/53
 Leis (low-energy ion scattering spectrometry) 1/542
 library spectrum 2/450
 Li-COR 4200 fluorescence microscope 2/53
 LI-COR DNA sequencer 2/45
 LIF *see* fluorescence, laser-induced
 lifetime 1/138
 – luminescence 1/67
 – of an excited state 1/428, 1/430
 ligand field 1/133
 limit of detection 1/378
 line broadening 1/430
 – Doppler 1/430
 – hyperfine structure 1/431
 – Lorentz 1/430
 – pressure 1/430
 – Stark 1/431
 line profile 1/431, 1/461
 linear absorption coefficient 367
 linear dependences 2/463
 linear models 2/459
 linear Raman effect 1/43
 lineshapes 1/272
 linewidths 1/281, 1/430
 – anisotropy 1/281
 – asymmetry 1/281
 lipase 2/21
 lipid peroxidation 2/19

- lipids
 - HRP assay for 2/15
 - oxydation/peroxydation 2/15
 - metabolism 2/19
 - nalling 2/19
 - traffic 2/19
- LIPIDAT 2/9
- lipoprotein lipase 2/24
- liquid chromatography and atomic emission spectroscopy (LC-AES) 1/492 ff
- liquid chromatography-atomic absorption spectrometry (HPLC-AAS) 1/469
- liquid chromatography-mass spectrometry (LC-MS) 1/347, 2/152, 2/163, 2/226 f
- liquid crystals 1/529
- liquid samples 1/29
 - chromatographic separation 1/31
 - complexation 1/30
 - extraction 1/29
 - extraction/separation and preconcentration 1/29
- liquid-liquid extraction 1/344
- liquids 1/22
- lithium
 - determination of 2/70
 - in blood 2/70
- loading matrix 2/453
- local thermal equilibrium 1/433
- local thermal equilibrium (LTE) 1/427
- long-range heteronuclear chemical shift correlation 1/240
- Lorentz line broadening 1/430
- low-density lipoproteins 2/24
- low-viscosity solvents 1/146
- luciferase enzyme 2/65
- luciferase system
 - from the firefly *photinus pyralis* 2/65
- luciferin 2/65
- lucigenin 2/13, 2/22
- luminescence 1/44, 1/67
- luminol 2/65
- luminol/HRP system 2/65
- Lyman series 1/422
- lyotropic liquid crystals 2/101
- LysoSensor probes 2/11
- m**
- MAES (metastable atom electron spectroscopy) 1/551
- mag-fura-2 2/12
- magic angle spinning (MAS) 1/175, 1/94, 1/280
 - line narrowing 1/280
- magic-angle hopping (MAH) 1/300
- magic-angle turning (MAT) 1/300
- Magnesium Green 2/12
- magnesium
 - detection of Green, dye 2/12
- magnetic dipolar interaction 1/187
- magnetic domain 1/555
- magnetic domains 1/554
- magnetic field strengths 1/171
- magnetic materials 1/523, 1/537, 1/576 f
- magnetic moment 1/172
- magnetic resonance imaging (MRI) 1/199
 - image contrast control 1/199
- magnetic sector 1/335
- magnetorefectance 1/561
- magnetron 1/476
- MALDI 2/502
- MALDI-TOF mass spectrometry 2/122
- MALDI-TOF-TOF MS 2/124
- malignancy 2/11
- maltose phosphorylase 2/14
- MAS 1/271, 1/280
 - anisotropic broadening 1/281
 - anisotropic lineshape 1/282
 - line narrowing 1/280
- MAS-J-HMQC 1/308
 - one-bond correlations 1/308
 - through-bond *J* couplings 1/308
- MAS-J-HSQC 1/308
 - one-bond correlations 1/308
 - through-bond *J* couplings 1/308
- mass analysis 1/335
- mass attenuation coefficient 1/367
- mass chromatogram 2/498
- mass frontier 2/499
- mass spectra quality indices 2/255
- mass spectral interfaces 2/401 f, 2/408 f
- mass spectrometry *see also* process
 - analysis 1/329, 1/338, 2/488
 - databases 2/489
 - search software 2/495
- mass spectroscopy (MS) 2/4, 2/122
 - in bioanalysis 2/122
- MassLib 2/495
- MassLib/SISCOM 2/497
- MASSTransit 2/491
- MATLAB 2/467
- matrices 2/253
- P*-matrix 2/462
- matrix effects 1/401
- matrix modifier 1/463
- matrix-assisted laser desorption (MALDI) MS 1/330, 2/122
- MBI
 - pesticides 2/156

- polar pharmaceutical compounds 2/156
- polycyclic aromatic hydrocarbons 2/154
- surfactants 2/154
- measurements
 - reflection-absorption 1/94
- MEIS (medium energy ion scattering) 1/543, 1/565
- melatonin 2/63
- membrane chloride transport 2/13
- membrane fusion 2/19
- membrane potential 2/12
- membrane potential-sensitive probes 2/19
- membrane transport
 - chloride 2/13
- MEMS *see* microelectromechanical systems
- merocyanine 540 2/15, 2/19
- metal complexes 1/133
- metal ion association reactions 2/262
- metalloproteinases 2/13
- N-methyl-4-hydrazino-7-nitrobenzo-furazan 2/4
- 6-methoxyquinolinium derivatives 2/13
- Mg²⁺ 2/12
- Michelson interferometer 1/50
- microinjectable cell tracers 2/57
- micromechanical systems in bioanalysis 2/131
- microparticles
 - fluorescent 2/15
- microscans 2/247, 2/249
- microscopic 1/84
- microscopic XRF 1/399
- microscopy 2/57
 - confocal 2/63
 - laser scanning, with MPE 2/63
 - standardization reagents 2/57
- microseparation methods 1/346
- microsomal dealkylase 2/21
- microsystems 2/3
 - microarray 2/3
 - microelectrophoresis 2/3
 - microfluidics 2/3
- microtubule
 - cell cycle-dependent 2/17
 - dynamics 2/17
 - polymerization 2/13
- microwave plasma 1/476
- microscan 2/246, 2/251
- MIES (metastable impact electron spectroscopy) 1/539, 1/551
- minor-groove binders 2/18
- MIP (multiple internal reflection) 1/476, 1/511
- mist chambers 1/13
- mitochondria
 - Na⁺ gradients 2/11
 - probes for 2/22
 - sodium gradients in 2/11
- MitoFluor Probes 2/22
- mitotic spindle morphogenesis 2/17
- MitoTracker 2/22
- mixing chamber 1/441
- mixture rule 1/368
- MLR 2/462
- mode couplers (interferometers) 2/81
- modulation spectroscopy 1/561
- moisture 1/110
- molar ellipticity 1/82
- molecular film 1/536, 1/539
- molecular imprinting 2/69
- molecular interactions 1/580
- molecular orientation 1/535, 1/551
- molecular recognition structures 1/349
- moment
 - dipole 1/271
 - quadrupole 1/271
- monochromator
 - Czerny-Turner 1/58
- monolayer 1/501, 1/574
 - Langmuir-Blodgett 1/512
 - self-organised 1/536
- Moseley's law 1/374
- motion
 - rate constant 1/279
 - three site jump 1/279
- moving belt (MBI) 2/153, 2/156
- MPE laser scanning microscopy 2/63
- MQC 1/295
- MRI pulse sequence
 - echo planar sequence 202
 - spin-warp 1/200
- MS *see* mass spectroscopy
- MST *see* microsystems
- mulls 1/92
- multichannel analyzer 1/387
- multichannel detection 1/470
- multichannel instruments 1/481 ff
- multichannel spectrometers 1/392
- multichannel wavelength-dispersive instruments 1/393
- multicollinearities 2/464
- multidrug resistance 2/11
- multi-element technique 1/470
- multi-frequency irradiation methods 2/254
- multilayer 1/501
- multi-photon 1/155
- multi-photon excitation 1/149

- multi-photon fluorescence excitation (MPE) 2/59
- multiphoton microscopy 1/138
- multiple linear regression (MLR) 2/462
- multiple magnetization transfers (spin-diffusion) 2/111
- multiple quantum spectroscopy 2/108
- multiple-element techniques 1/413
- multiple-frequency resonance ejection methods 2/252
- multistep elution 2/127
 - as sample 2/127
 - prep in MS 2/127
- multivariate calibration in AES 1/489
- multivariate calibration methods 2/69
- multivariate methods 2/459
- muscle contraction 2/11
- n**
- Na⁺
 - indicators for 2/10
 - channel
 - probes for the 2/25
 - efflux in 2/11
- NAA (neutron activation analysis) 1/518
- NADH 2/15, 2/63
- NADPH 2/15
- Na⁺/H⁺ antiporter 2/25
- Na⁺/K⁺-ATPase 2/25
- NanoOrange 2/16
- nanoparticles
 - fluorescent 2/15
- naphthalene-2,3-dicarboxaldehyde 2/14
- naphthalocyanine dyes
 - bis(alkylsiloxysilyl) complexes of naphthalocynines 2/36
- naphthalocyanines 2/35
- native-like structure 1/354
- natural lifetime 1/138
- NBD 2/19
- NBT 2/14
- near-field microscopes 1/86
- near-field scanning optical microscopy 2/19
- near-infrared (NIR) 1/42, 1/104, 2/10
- nebuliser 1/441 f
- negative ion chemical ionization (NICI) experiments 2/253
- neural network 2/474, 2/478
- neuraminidase 2/20
- neurokinin receptors 2/25
- neuromedin C receptors 2/25
- neutral loss searching 2/497
- Newport Green 2/13
- NEXAFS (near edge X-ray absorption spectroscopy) 1/544
- NHS ester *see* N-hydroxysuccinimidyl ester
- N-hydroxysuccinimidyl (NHS) ester 2/28, 2/31
- Nicolet 2/447
- nicotinic acetylcholine receptors 2/91
- Nile Blue 2/70
- NIR 1/42, 1/104, 2/10
 - absorbing chromophores 2/32
 - absorption spectroscopy 2/68
 - agriculture 1/110
 - dye NN 382
 - environmental monitoring 1/110
 - fiber optic immunosensor 2/53
 - food industry 1/110
 - pharmaceutical industry 1/111
 - polymer industry 1/111
 - spectrometers
 - miniaturised 2/68
- NIST 2/447
- NIST Mass Spectral Library 2/490
- nitrate 2/70
- nitric oxides 2/14
- nitrobenzoxadiazole (NBD) 2/19
- NIXSW (normal incidence X-ray standing wave) 1/591
- NMR *see also* nuclear magnetic resonance spectroscopy 1/171, 2/297
 - dynamic processes 1/277
 - ²H 1/278
 - parameters
 - chemical shift 1/181 ff
 - detection frequency 1/181 ff
 - gyromagnetic ratio 1/181 ff
 - J-coupling constants 1/181 ff
 - magnetic field 1/181 ff
 - nuclear spin 1/181 ff
 - resonance frequency 1/272
 - orientational dependence 1/272
 - single-crystal 1/273 f
 - solid-state 1/275
 - spectroscopy 2/6, 2/94 ff
 - of proteins 2/94
 - active nuclei 1/270
 - magnetogyric ratios 1/270
 - natural abundances 1/270
 - nuclear spin quantum numbers 1/270
- NOE (nuclear Overhauser effect) 1/173, 1/212
- NOESY (nuclear Overhauser enhancement spectroscopy) 1/228, 1/173, 2/110
- noise levels
 - in the NIR in visible regions 2/27

- non-covalent biopolymer complexes 1/349
- noncovalent supramolecular complexes 1/354
- non-invasive monitoring
 - of glucose 2/69
- non-linear least squares strategy 1/408
- non-linear methods 2/459
- non-linear Raman effect 1/43
- Non-RBS or n-RBS (Non-Rutherford backscattering spectrometry) 1/567
- Nonylphenolpolyglycoether (NPEO) 2/169 ff
 - in-source-CID 2/169
 - MS/MS CID 2/169
- normalization 2/449
- NRA (nuclear reaction analysis) 1/541, 1/563
- NSOM 1/86
- nuclear magnetic resonance (NMR) 1/171, 2/297
- nuclear magnetic resonance spectroscopy 2/469
- nuclear Overhauser effect (NOE) 1/173, 1/212
 - difference spectroscopy 1/212
 - distances between a pair of protons 1/212
 - stereochemical relationship 1/212
- nuclear Overhauser enhancements (NOE) 2/98
- nuclear Overhauser enhancement spectroscopy (NOESY) 1/288, 1/173, 2/110
- nuclear spin quantum number 1/172
- nuclei
 - half-integer 1/271
 - integer 1/271
 - magnetogyric ratio 1/271
 - natural abundance 1/271
- nucleic acid analysis
 - by MS 2/130
- horseradish peroxidase (HRP) 2/16
- nucleotide-binding proteins 2/24
- number density (of absorbing atoms) 1/429
- number density (of excited particles) 1/428
- o**
- obstacles 2/163 ff
 - atmospheric pressure chemical ionisation (APCI) 2/163
 - capillary electrophoresis (CE) 2/163
 - capillary zone electrophoresis (CZE) 2/163
 - electrospray ionisation (ESI) 2/163
 - TSP 2/163
- off-resonance decoupling 1/216
- OliGreen 2/17
- one-dimensional NMR experiment 2/103
- operation
 - continuous-scan 1/52
- ophthalmaldehyde 2/16
- opioid receptors 2/25
- optical activity 2/428
- optical density
 - in ATR 2/77
- optical rotatory dispersion (ORD) 1/81, 2/93
- optical spectral data bases 2/447
- optical spectroscopy *see also* process analysis 2/441
- optimization of ICP 1/490
- orbital angular momentum 1/423
- orbital quantum number 1/423
- organoarsenic compounds 2/154
- organophosphorus compounds 2/217 ff
 - biodegradation 2/195
 - drinking water 2/217
 - groundwater 2/194, 2/217
 - interlaboratory study 2/194
 - ion chromatography 2/217
 - MS/MS 2/217 f
 - photodegradation 2/195
 - quantification 2/218
 - stability 2/218
 - surface water 2/217
 - wastewater 2/218
- organophosphorus pesticides 2/179
- organotin compounds 2/258
- orientation
 - molecular 1/578
- orientational dependence 1/272
 - NMR resonance frequency 1/272
- oriented matrices 2/102
 - inNMR 2/102
- oriented samples 1/313
- orthogonal injection
 - in ESI-MS 2/123
- outlier spectra 2/461
- out-of-plane 1/42
- overview
 - aromatic sulfonates 2/154
 - complexing agents 2/154
 - diagnostic agents 2/154
 - drugs 2/154
 - dyes 2/154
 - explosives 2/154
 - haloacetic acids 2/154
 - organoarsenic compounds 2/154
 - PAHs 2/154
 - pesticides 2/154
 - phenols 2/154
 - surfactants 2/154
 - toxins 2/154
 - xenoestrogens 2/154

- oxa-carbocyanines 2/19
- oxazolium pentamethine cyanine dye (DODC) 2/33
- oxidation state 1/585
- oxidoreductase 2/21
- OxyBURST technology 2/26
- oxygen 2/15, 2/69

- p**
- PAES (positron annihilation auger electron spectroscopy) 1/555
- PAH 2/154
 - quantification 2/208
- Pake doublet 1/192
- parent structure 2/473
- partial least squares (PLS) 2/465
- particle beam (PBI) 2/153, 2/157
- particle size 1/417
- partition function 1/429, 1/433
- PAS (photoacoustic spectroscopy) 1/552
- Paschen series 1/422
- passive sampling 1/13
- pattern recognition
 - FIA-MS 2/175
 - FIA-MS/MS 2/175
- PBI 2/157 ff
 - alkylphenol carboxylates (APECs) 2/159
 - alkylphenol ethoxylates (APEOs) 2/159
 - anilides 2/158
 - biochemical 2/157
 - carbamate 2/158
 - chlorinated phenoxy acid 2/158
 - degradation products 2/157
 - dyes 2/159
 - herbicides 2/157
 - isocyanates 2/158
 - library-searchable EI spectra 2/159
 - organo-phosphorus 2/158
 - PAHs 2/159
 - PAH metabolites 2/160
 - pesticides 2/157
 - phenylurea 2/158
 - physiochemical 2/157
 - quaternary ammonium 2/158
 - triazines 2/158
- P-COSY experiment 2/107
- PCR 2/18, 2/464
- PDT 2/36
- 2PE cross section 2/60
- PED or PhD (photoelectron diffraction) 1/586
- PEELS (parallel electron energy loss spectroscopy) 1/530, 1/535
- PEEM (photemission electron microscopy) 1/553
- 2PE fluorescence polarization measurements 2/64
- pelletized 1/417
- pellets 1/92
- penetration depth 1/402, 2/74
- penicillin 2/87
- peptidases 2/20
- peptide
 - analysis 2/16
 - MS 2/502
- perfluoro compounds 2/262
- permeability
 - of the dielectric media 2/72
- permittivity 1/562, 2/72
- peroxide 2/15
- Perrin plots 1/150
- perylene 2/19
- PESIS (photoelectron spectroscopy of inner shell) 1/587
- pesticides 2/154, 2/176 ff, 2/258
 - anilides 1/176, 2/158, 2/192, 2/215
 - antifouling 2/199
 - benzidines 2/154
 - biodegradation 2/199
 - carbamate 2/154, 2/158, 2/177 ff, 2/193
 - chlorinated 2/154
 - phenoxy acid 2/158
 - degradation pathways 2/182
 - degradation products 2/182
 - ESI-CZE-MS 2/215
 - ESI-FIA-MS 2/215
 - estuarine waters 2/182
 - fruits 2/193, 2/197
 - fruit drinks 2/197
 - fungicides 2/215
 - glyphosate 2/161
 - groundwater 2/192, 2/196 f, 2/199
 - herbicides 2/215
 - isocyanates 2/158
 - library 2/218
 - N-methylcarbamate pesticides 2/193
 - MS/MS 2/195 f, 2/216
 - MS/MS library 2/194
 - natural waters 2/198
 - organophosphorus 2/158, 2/194
 - biodegradation products 2/194
 - organophosphorus compounds 2/179
 - phenolic compounds 2/197
 - phenoxyacetic acid 2/154
 - phenoxycarboxylic acids 2/179, 2/195
 - phenylurea 2/158, 2/180, 2/196
 - quantification 2/181, 2/192 ff, 2/215
 - quaternary amines 2/176, 2/192, 2/215
 - quaternary ammonium 2/154, 2/158

- rivers 2/198
- river water 2/192 f, 2/199
- sediment 2/197
- soil samples 2/182
- sulfonylureas 2/161, 2/180, 2/196
- surface water 2/196, 2/198
- thiocyanate 2/176, 2/192
 - compounds 2/215
- thioureas 2/180, 2/196
- tin-containing pesticides 2/201
- toluidines 2/176, 2/192, 2/215
- triazines 2/154, 2/158, 2/181, 2/197 ff
- urea pesticides 2/180
 - quantification 2/180
- vegetables 2/193
- water 2/196 f
- Pfleger/Maurer/Weber database 2/494
- PH or PEH (photoelectron holography) 1/586
- pH
 - indicators for 2/10
- phagocytosis 2/26, 2/68
- phalloidin 2/17
- phalloidin 2/17
- phallotoxins 2/17
- phase cycling routines 1/232
 - CYCLOPS 1/232
 - EXORCYCLE 1/232
- phenanthridine dyes 2/17
- 2-phenethylamine 2/70, 2/71
- Phen Green FL 2/13
- phenobarbital 2/56
- phenols 2/154
 - quantification 2/208
- phenoxazine 2/70
- phenoxycarboxylic acids 2/179
 - drinking water 2/219
 - groundwater 2/219
 - MS/MS 2/219
 - quantification 2/219
 - surface water 2/219
- phenylureas
 - agricultural soil 2/222
 - chemical degradation 2/222
 - crop 2/222
 - degradation products 2/220, 2/222
 - estuarine waters 2/220
 - fruit drinks 2/197
 - fruits 2/197, 2/222
 - groundwater 2/196 f
 - metabolites 2/222
 - MS/MS 2/221 f
 - natural waters 2/221
 - photolysis products 2/222
 - quantification 2/220 ff
- river water 2/221
- sediment 2/197
- surface water 2/196, 2/221
- water 2/196 f
- phenytoin 2/56
- phosphatase-based signal amplification 2/15
- phosphate 2/14
- phospholipase activity 2/19
- phosphorescence 1/45
- phosphorylations 1/351
- photoacoustic 1/83 f
 - sampling depth 1/84
- photobleaching 1/155, 1/157, 2/63
- photodiode array 2/381 ff
- photodiodes 2/10
- photodynamic therapy (PDT) 2/36
- photoelectric absorption 1/369
- photoelectric effect 1/369
- photomultiplier 1/386
- photomultiplier tubes (PMT) 2/27
- o-phthaldialdehyde 2/14
- phthalocyanines 2/10, 2/35
- phycobiliproteins 2/15, 2/57
- PicoGreen 2/17
- PIES (penning ionisation electron spectroscopy) 1/539, 1/551
- piezorefectance 1/561
- PIGE or PIGME (particle induced gamma ray emission) 1/541, 1/546
- PISEMA (polarisation inversion with spin exchange at the magic angle) 1/313
 - internuclear dipolar couplings 1/315
 - tilt angle of the polypeptide helix 1/315
- PIXE (particle induced X-ray emission) 1/541, 1/548
- plasma desorption 1/332
- PLS (partial least square) 2/465
- PLS_Toolbox 2/467
- PLSplus 2/467
- PM (polarization modulation) 1/561
- PMB 2/496
- PMP (proton microprobe) 1/539
- PMT 2/27
- polarization 1/118, 1/383
- polarization excitation spectra 1/149
- polarized light 1/81
- polychromatic flow cytometry (PFC) 2/57
- polychromator 1/481 ff
 - Raman grating 1/61
- Polycyclic aromatic hydrocarbon (PAH)
 - isomers
 - by IR 2/417 ff
 - by UV 2/384 ff
- polyethylene glycols 2/101

- Polymer molecular weight, true value by LC-MS 2/410
- polymethines 2/10
- polymixin B
 - analog 2/24
 - fluorescent 2/24
- population of excited levels 1/426
- portable equipment 1/389
- post-translational modifications 1/349
- post-translational structure modifications 1/349
- potential sensitive dyes 2/70
- PPP MO 2/28
- preamplifier 1/387
- pregnancy-associated plasma protein A 2/56
- preparation of gaseous samples 1/4
- preparation of samples for analysis 1/24
- presaturation method (NMR) 2/104
- pre-search 2/495
- PRESS 2/466
- pressure line broadening 1/430
- primary absorption 1/403
- primary structures 1/349
- principal component analysis 2/452
- principal component regression (PCR) 2/464
- principal quantum number 1/423
- principle
 - double-beam 1/49f
- Prion proteins 2/6
- prism couplers 2/81
- Probability Based Matching (PMB) 2/496
- probes for Cl^- channels 2/25
- probes for K^+ channels 2/25
- probes for mitochondria 2/22
- process analysis 2/336 ff, 2/271 ff
 - atomic emission spectrometry (AES) 2/336, 2/356
 - gaseous effluents 2/357
 - laser based techniques 2/362
 - liquid streams 2/356
 - plasma spectrometry 2/356
 - reactive gases 2/360
 - acoustic emission spectroscopy 2/276
 - atomic spectrometry 2/336
 - atomic spectroscopy 2/274
 - chemical composition 2/273
 - elemental analysis 2/336
 - applications 2/336
 - catalyst control 2/337
 - corrosion monitoring 2/339
 - on-stream/at-line analysis 2/343
 - reducing environmental impact 2/341
 - troubleshooting process problems 2/342
 - inductively coupled plasma atomic emission spectrometry (ICPAES) 2/336
 - inferential analysis 2/277
 - infrared 2/274
 - ion mobility spectrometry 2/276
 - IR 2/279
 - mass spectrometry 2/316 ff
 - applications 2/330
 - attributes 2/316
 - calibration 2/327
 - data analysis 2/325
 - detectors 2/325
 - fermentation off-gas analysis 2/331
 - hardware 2/317
 - ionization 2/231
 - limitations 2/316
 - maintenance 2/329
 - mass analyzers 2/322
 - operation 2/329
 - sample collection and conditioning 2/319
 - sample inlet 2/319
 - vacuum system 2/325
 - mass spectroscopy 2/274
 - microwave 2/279
 - microwave spectroscopy 2/274
 - NMR (Nuclear Magnetic Resonance) 2/274, 2/279, 2/297 ff
 - broadline NMR 2/301 ff
 - calibration 2/299
 - curing process applications 2/303
 - food industry applications 2/303
 - FT-NMR 2/307
 - gasoline applications 2/309
 - growth factor β_3 2/313
 - manufacturers 2/306
 - petroleum refining 2/313
 - polymer industry applications 2/306
 - polymer production applications 2/303
 - quantitation 2/297, 2/299
 - sample 2/300
 - sulfuric acid alkylation process 2/311
 - optical spectroscopy 2/279 ff
 - cavity ringdown spectroscopy 2/294
 - chemiluminescence 2/280, 2/293
 - Far-IR 2/279
 - fluorescence 2/280, 2/293
 - IR 2/279
 - laser techniques 2/280
 - laser diode techniques 2/291
 - Mid-IR 2/279 ff
 - Near-IR 2/279 f
 - near-infrared spectroscopy 2/282 ff
 - non-dispersive infrared analysers 2/280 f

- optical sensors 2/280, 2/294
- Raman spectroscopy 2/280, 2/287 ff
- UV 2/279 f
- UV/visible spectroscopy 2/280, 2/286
- visible 2/279 f
- physical characteristics 2/273
- practical considerations 2/272
- Raman spectroscopy 2/280
- REMPI spectroscopy 2/275
- sample 2/272 ff
- spectroscopy 2/273
- ultrasound 2/276
- UV/visible 2/274, 2/279
- X-ray fluorescence (XRF) 2/336, 2/344
 - corrosion monitoring 2/351
 - direct analysis of solids 2/354
 - liquid process streams 2/348
 - powders 2/352
 - slurries 2/352
 - trace analysis 2/351
- X-ray techniques 2/279
- process control 2/269 ff
- process industry 2/5
- process mass spectrometry 2/316
- profile function 1/431
- propidium iodide 2/17
- proportionality 1/384
- proteases 2/20
- protective agent for AAS 1/463
- protein 1/529
 - kinases 2/24
 - phosphatases 2/24
- proteinase inhibitors 2/24
- protein kinase 2/23
 - activators 2/24
 - inhibitors 2/24
- protein quantitation 2/16
- proteome 2/4
- proteome analysis 1/356
- proteomic databases 2/5
- proteomics 1/356, 2/4
 - proteolytic degradation 1/356
 - sequence tags 1/356
- proton transfer 2/251
- pulsed field gradients (PFGs) 1/173, 2/102
- pulsed lamp background correction 1/460
- pulse-height selection 1/384
- pulse methods 1/186
- purple membranes (PM)
 - of *Halobacterium salinarum* 2/101
- pyrene 1/154, 2/19
- pyrophosphate 2/14

q

- quadrupolar coupling (C_Q) 1/174
- quadrupolar interaction 1/191
 - asymmetry parameter, η 1/192
 - axially symmetric 1/278
 - definition 1/192
 - electric charge asymmetry of the nucleus 1/191
 - moments 1/191
 - nuclear electric quadrupole moment 1/192
 - quadrupolar coupling constant 1/192
 - tensor 1/192
- quadrupolar nuclei
 - line shapes 1/195
- quadrupole instruments 2/246
- quadrupole ion trap 2/265
- quadrupole ion trap mass spectrometry 2/244
- quadrupole mass analyser 1/337
- quadrupole mass spectrometry 2/258
- qualitative evaluation of spectra, optical 2/446
- QuantIR 2/467
- quantitative calibration procedures 1/409
- quantitative evaluation 2/455
- quantitative proteomics 2/126
- quantitative reliability 1/418
- quantum number, orbital 1/423
- quantum number, principal 1/423
- quantum number, spin 1/423
- quantum number, total 1/423
- quantum yield 1/138 ff, 1/143, 2/28
- quartz furnace-atomic absorption spectrometry 1/467
- quartz T-tube atomiser (for AAS) 1/468
- quartz tube atomiser 1/449

r

- radiation
 - scattered 1/97
- radiationless relaxation 1/427
- radiation source for AAS 1/434
- radiative de-excitation 1/427
- radiative transition 1/428
- radio frequency (RF) 1/172
- radio frequency (RF) generator 1/473
- radioactive α -, β -, and γ -sources 1/382
- radioactive sources 1/380
- radioisotope XRF 1/397
- radiotherapy 2/29
- RAIRS (reflection absorption infrared spectroscopy) 1/75, 1/534, 1/559
- Raman 2/428
 - mapping 1/117
 - microprobe 1/117

- scattering 2/27, 2/91
 - shift 1/43
 - spectroscopy 1/43, 1/557, 2/92 ff
 - near-infrared excitation 2/93
 - random and systematic error 1/415
 - RBS (Rutherford backscattering spectro-
metry) 1/541, 1/565
 - R-COSY 2/108
 - reactive sites 1/353
 - real-time BioInteraction Analysis 2/5
 - receptor binding 2/25
 - recoupling methods 1/287 ff
 - REAPDOR 1/290
 - REDOR 1/287
 - TRAPDOR 1/290
 - red-edge 1/146
 - REDOR 1/310
 - dipolar couplings 1/310
 - distance determination 1/290
 - REELS, EELS (reflection electron energy loss
spectroscopy) 1/535, 1/561
 - reflection 2/72
 - absorption 1/75
 - diffuse 1/97
 - measurements 1/73
 - off-axis 1/80
 - on-axis 1/80
 - reflectometric interference 2/81
 - reflectometric interference spectroscopy
(RIFS) 2/89
 - refraction 2/72
 - refractive index
 - complex 1/74
 - region
 - fingerprint 1/102
 - regulations 2/256
 - relative detection limits 1/378
 - relative random counting error 1/405
 - relaxation 1/195
 - correlation times 1/196
 - methyl group rotation 1/196
 - spin-lattice T_1 1/217
 - spin-spin T_2 1/217
 - T_1 , spin-lattice relaxation 1/196
 - T_{1p} , spin-lattice in the rotating frame
relaxation 1/196
 - T_2 , spin-spin relaxation 1/196
 - times
 - ^{13}C T_1 1/285
 - ^1H T_{1p} 1/285
 - relayed COSY (R-COSY) 2/108
 - representative sample 1/117
 - REPT-HMQC 1/310
 - residual dipolar couplings (RDC) 2/99
 - residual variance 2/454
 - residuals 2/458
 - resolution 1/51
 - spectral 1/52
 - resonance 1/148
 - resonance energy transfer 1/45
 - resonance Raman scattering 1/119
 - resonant ejection frequencies 2/252
 - resonant mirror (RM) 2/83
 - reverse phase HPLC 2/45
 - reverse search 2/496
 - review
 - dyes 2/154
 - environmental analysis 2/154
 - environmental contaminants 2/154
 - general 2/154
 - surfactants 2/154
 - water analysis 2/154
 - RF level 2/254
 - RF ramping 2/248
 - RF voltages 2/252
 - rhodamine 110 2/20
 - rhodamines 2/10, 2/15, 2/19, 2/28
 - RiboGreen 2/17
 - ribosomes 2/72
 - RNRA (resonant nuclear reaction
analysis) 1/563
 - rocking modes 1/42
 - ROESY (rotating frame Overhauser enhanced
spectroscopy) 1/173, 1/230
 - rosamines 2/22
 - Rose Bengal diacetate 2/15
 - rotating anode tubes 1/380
 - rotating-frame nuclear Overhauser effect
spectroscopy (ROESY) 2/110
 - rotating-frame Overhauser effect (ROE) 2/109
 - rotational correlation time 1/149 f
 - rotational-echo double resonance
(REDOR) 1/175
 - rotational resonance (RR) 1/290
 - rotational temperature 1/434, 1/436
 - Rowland circle 1/482
 - Rowland spectrometer 1/481 ff
 - ROX 2/40
 - RS (recoil spectroscopy) 1/520
 - ruthenium trisbipyridyl ($\text{Ru}(\text{bpy})_3$)
complexes 2/68
- S**
- Sadtler 2/447
 - Saha equation 1/432
 - SAHO 2/472
 - SALI (surface analysis by laser
ionisation) 1/573

- SAM (scanning Auger microscopy) 1/567
 sample preparation 1/105, 1/344
 sample preparation for inorganic analysis 1/25
 – acid digestion 1/25
 – fusion reactions 1/27
 – nonoxidizing acids 1/26
 – oxidizing acids 1/26
 samples
 – liquid crystals 1/275
 – neat solid 1/94
 – oriented lipid bilayers 1/275
 – polymer fibres 1/275
 – powdered 1/275
 sampling considerations 1/5
 Sanger 2/37
 Sanger method *see* DNA sequencing
 SAv 2/29
 SCAN 2/467
 scan repetition rate 2/248, 2/251
 SCANIIR (surface composition by analysis of neutral and ion impact radiation) 1/533
 scanning modes 2/247
 scattering 1/371
 – in near-IR 2/10
 – interactions 1/369
 – Rayleigh 1/58
 – Tyndall 1/58
 schistosomiasis 2/47
 scintillation counter 386
 score matrix 2/453
 SDBS 2/447, 2/492
 sealed X-ray tubes 1/380
 search for bands 2/446
 secondary absorption 1/404
 secondary ion mass spectrometry (SIMS) 2/125
 secondary target EDXRF system 1/395
 segmental mobility 1/151
 selected-ion monitoring 2/251
 selected-ion monitoring procedures 2/255
 selection rules 1/373, 1/424
 selective population transfer (SPT) 1/173, 1/213
 – DEPT 1/213
 – INEPT 1/213
 – spin population inversion (SPI) 1/213
 selenium
 – ion, indicators for 2/13
 self-absorption 1/431, 1/438
 self-assembled biomembranes 2/91
 self-chemical ionization 2/248
 self-CI processes 2/253
 self-decoupling 1/185
 self-diffusion of 1/202
 self-organizing monolayers 545
 self-quenching 1/143
 self-reversal 1/431, 1/460 f
 self-training interpretive and retrieval system (STIRS) 2/496
 SEM (scanning electron microscopy) 1/567
 semiconductor detectors 1/386
 semiempirical quantum chemical methods 2/28
 semiochemistry 2/70
 SEMP (scanning electron microscopy with polarisation analysis) 1/567
 sensitivity 2/252
 sensitivity AES 1/491
 sensors 2/71
 sequence data 2/8
 sequence determinations 1/350
 – sequencing 2/16
 – synthesis 2/16
 serotonin 2/63
 SERS (surface enhanced Raman scattering) 1/557
 SESAMI 2/483
 SEW (surface electromagnetic waves spectroscopy) 1/574
 SEXAFS (surface X-ray absorption fine structure) 1/527, 1/586
 SFG (sum-frequency generation) 1/578
 SHG (second harmonic generation) 1/579
 shift correlation experiments 1/237 ff
 – accordion-HMQC experiment 1/239
 – accordion-optimized direct correlation experiment ADSQC 1/239
 – DEPT-HMQC 1/237
 – multiplicity'-edited GHSQC 1/238
 sialidase 2/20
 Siegbahn nomenclature 1/373
 signal/background ratio 2/253
 signal-to-background ratio 2/251 f
 SIM acquisition 2/251
 SIM mode 2/260
 SIM procedures 2/253
 SIMCA 2/455
 similarity measures 2/448
 similarity search 2/497
 SIMS (secondary ion mass spectrometry) 1/571
 – dynamic mode 1/572
 – state mode 1/571
 simulated emission 1/427
 simultaneous wavelength-dispersive spectrometers 1/393
 single-channel instruments 1/392

- single-element techniques 1/412
- single molecule detection 1/155
- single nucleotide polymorphism studies (SNP genotyping) 2/130
- single quantum coherence (SQC) 1/176
- singlet state 1/425
- SiNPcs 2/36
- SLEELM (scanning low energy electron loss microscopy) 1/562
- slew-scan monochromator 1/480
- slurry analysis 1/470
- slurry nebulisation 1/483
- small sample NMR 1/257 ff
 - cryogenic NMR probe 1/260
 - magic angle, liquid Nano-probe 1/258
 - μ -coil NMR probes 1/258
 - SMIDG probe 1/258
- Smith-Hieftje background correction method 1/460 f
- SNMS (secondary neutral mass spectrometry) 1/533, 1/573
- SNOM (scanning near-field optical microscopy) 1/86, 1/571
- sodium efflux
 - in cells 2/11
- sodium green 2/11
- soft ionisation 1/332 ff
 - interaces
 - APCI 2/168
 - ESI 2/168
 - FAB 2/168
 - TSP 2/168
 - method 1/330
- electrospray-ionisation 1/330
- solid echo 1/278
- solid phase extraction 1/345
- solid sample introduction 1/452, 1/483 ff
 - for AAS 1/470
- solid samples 1/24
- solid state NMR 1/174, 1/285
 - ^1H 1/285
- solid-phase microextraction 1/345, 2/127
 - as sample 2/127
 - prep in MS 2/127
- solids 1/23
- solid-state drift chamber 389
- solid state NMR 1/173, 1/187
- solute quenching 1/140 f1/141
- solution state ^1H NMR 1/171, 1/179
- solvent quenching 1/143
- solvent relaxation 1/144, 1/147
- solvent suppression (in NMR) 2/104
- sorbents 1/9 ff
- space-charge effects 2/247 f, 2/249
- SPAES (spin polarised Auger electron spectroscopy) 1/512
- spark 1/477, 1/484
- speciation analysis 1/466
- specimen preparation 1/416
- SpecInfo 2/447, 2/491
- SpecManager 2/502
- SPECSOLV 2/482 f
- SpecSurf 2/502
- SpecTool 2/452
- spectra library 2/247
- spectra processing 2/442
- spectra
 - powder 1/276
 - quantitative evaluation 2/455
 - solid-state 1/277
 - solution 1/277
 - static powder 1/275 f
- spectral buffering 1/455
- spectral data bases, optical 2/447
- spectral editing 1/283
 - SS-APT 1/284
- spectral interference in AES 1/486
- spectral interferences 1/454 ff
- spectral range
 - MIR 1/89
- spectral regions
 - dead 1/49
- spectral search 2/448
- spectral similarity search 2/471
- spectral simplification
 - chemical modification 1/183
 - selective decoupling 1/183
 - ^{13}C labeling 1/186
 - deuteration 1/185
 - self-decoupling 1/185
- spectrometers
 - AOTF 1/56
 - diode array 1/56
 - dispersive 1/48 f
 - filter 1/56
 - fluorescence 1/66
 - Fouriertransform 1/50
 - FT 1/48
 - FT-NIR 1/55
 - FT-Raman 1/61
 - LED 1/56
 - luminescence 1/66
 - MIR 1/48
 - multi-channel 1/63
 - NIR 1/54
 - Raman 1/57
 - Raman grating 1/57
 - scanning-grating 1/55

- UV/VIS 1/63
- vacuum 1/49
- spectroscopy
 - near-infrared 1/104
 - NIR 1/105
 - photoacoustic 1/97
 - Raman 1/112
- spectrum
 - emission 1/66
 - estimation 2/473
 - evaluation 1/405
 - excitation 1/66
 - prediction 2/474
- SPEELS (spin polarised electron energy loss spectroscopy) 1/575
- SPI (surface Penning ionisation) 1/551
- SPIES (surface Penning ionisation spectroscopy) 1/551
- spiking 1/412
- spin 1/172
- spin angular momentum 1/423
- spin decoupling 1/211
 - difference spectroscopy 1/212
 - selective population transfer (SPT) 1/211
 - spin ticking 1/211
- spin-diffusion 2/111
- spin-lattice 1/217
 - inversion-recovery 1/217
- spin quantum number 1/423
- spinning-sideband patterns
 - ^1H - ^1H DQ MAS 1/305
- SPIPES (spin polarised inverse photoelectron spectroscopy) 1/536 f
- spirobenzopyran 2/70
- SPMP (scanning proton microprobe) 1/539
- spontaneous decay 1/428
- spontaneous emission 1/427
- SPR biosensors 2/85 f
- SPR spectroscopy (surface plasmon resonance spectroscopy) 1/579
- Spreeta™ device 2/87
- SPUPS (spin polarised ultraviolet photoelectron spectroscopy) 1/508, 1/576, 1/584
- squaraine dyes 2/34
 - benz[e]indolium Sq660 2/35
- squarilium dyes
 - signal ransducing 2/71
- squaryliums 2/32
- SRPES (synchrotron radiation photoelectron spectroscopy) 1/588
- SRUPS (spin-resolved ultraviolet photoemission spectroscopy) 1/537
- standard addition 1/410
- standard temperature 1/433
- standardization (autoscaling) 2/443
- standardization reagents
 - flow cytometry 2/57
 - microscopy 2/57
- Staphylococcus Aureus* (Cowan-1 strain) 2/84
- Stark line broadening 1/431
- Statgraphics 2/467
- static quenching 1/140
- Statistica 2/467
- statistics of sampling 1/18 ff
- step-scan 1/53
- stereochemical effects 2/478
- stereochemical interactions 2/480
- Stern-Volmer equation 1/141
- STIRS 2/496
- Stokes lines 1/43
- Stokes-shift 1/146, 2/10
- Stokes-Einstein 1/141
- storage ring 1/383
- streptavidin (SAv) 2/29
- streptomycin
 - residues in whole milk 2/87
- structural diversity 2/475
- structure elucidation 2/469
- STS (scanning tunneling spectroscopy) 1/570 ff
- styryl dyes (ANEP) 2/19
- β -subunit of human chorionic gonadotropin (hCG) 2/56
- sulfide 2/14
 - probing of dynamic changes of red cell membrane 2/14
- 5-sulfofluorescein diacetate 2/11
- sulfonic acids 2/208
 - ion-pairing 2/209
 - leachates 2/208
 - MS/MS 2/208
 - plumes of landfills 2/209
 - quantification 2/208 f
 - textile wastewater 2/209
- sulfonylureas
 - agricultural soil 2/222
 - chemical degradation 2/222
 - crop 2/222
 - degradation products 2/220, 2/222
 - estuarine waters 2/220
 - fruits 2/222
 - metabolites 2/222
 - MS/MS 2/221 f
 - natural waters 2/221
 - photolysis products 2/222
 - quantification 2/220 ff
 - river water 2/221
 - surface water 2/221

- superconducting magnets 1/342
- supercritical-fluid extraction 1/346
- supervised learning 2/444
- surface
 - analysis technique
 - acronyms 1/594
 - classification 1/499
 - selection 1/501
 - type of information 1/505
 - cleanliness 1/514
 - concentration 1/501
 - contamination 1/506, 1/581, 1/590
 - definition 1/501
 - diffusion 1/555
 - enhanced fluorescence, SEF 2/91 ff
 - enhanced fluoroimmunoassay, SE-FIA 2/91
 - enhanced IR absorption, SEIRA 2/91
 - enhanced Raman scattering (SERS) 1/120, 2/93 ff
 - enhanced Raman spectroscopy (SERS) 2/93 ff
 - experimental 1/501
 - physical 1/501
 - plasmon 2/85
 - plasmon resonance (SPR) 2/81, 2/85
 - fiber and waveguide SPR 2/88
 - probe technique 1/499
 - resolution 1/502
 - selection rule 1/560
 - specificity 1/502
- surfactants 2/154, 2/189 f, 2/209 ff
 - alcohol ethoxylate (AEO) 2/189 f, 2/209 f, 2/213
 - alkylether carboxylates 2/190
 - alkyl etoxysulfates (AES) 2/211
 - alkyl polyglucamides 2/190
 - alkyl polyglucosides 2/190, 2/212
 - alkyl sulfates (AS) 2/211
 - APEO
 - halogenated 2/191
 - betaine 2/190
 - biodegradation 2/211 f
 - CDEA 2/190
 - coastel waters 2/211
 - coconut diethanol amide (CDEA) 2/189, 2/213
 - ditallow-dimethylammonium chloride (DTDMAC) 2/212
 - effluents 2/211
 - EO/PO compounds 2/190
 - estuaries 2/212
 - fatty acid polyglycol amines 2/190
 - gemini 2/190
 - German Bight 2/212
 - halogenated APEOs 2/191, 2/211
 - halogenated NPEO 2/210
 - ion chromatograph 2/214
 - LAS 2/189, 2/211 ff
 - NPEO 2/189 f
 - NPEO-sulfate 2/189
 - metabolites 2/209 f
 - N-methylglucamides 2/212
 - MS/MS 2/209 ff
 - neutral loss (NL) 2/209 f
 - nonylphenolpolyether carboxylate (NPEC) 2/210
 - North Sea 2/212
 - NPEO 2/209 ff
 - NPEO sulfates 2/213
 - OPEO 2/211
 - perfluorooctanesulfonate (PFOS) 2/212
 - perfluorooctanoic acid (PFOA) 2/212
 - quantification 2/191, 2/210 ff
 - quaternary ammonium compounds 2/214
 - quaternary carboxoalkyl ammonium compounds 2/190
 - sea water 2/212
 - secondary alkane sulfonate (SAS) 2/189, 2/213
 - sediment 2/212
 - SPE concentrated analytes 2/190
 - stability 2/190
 - stability of SPE concentrated analytes 2/190
 - sulfobetaine 2/190
 - sulfosuccinates 2/190
 - toxins 2/213
 - Waddensea marinas 2/212
 - wastewater 2/210 f
 - wastewater inflows 2/211
 - SXAPS (soft X-ray appearance potential spectroscopy) 1/508
 - SXPS (soft X-ray photoelectron spectroscopy) 1/588
 - SYBR 2/16
 - SYBR Green 2/18
 - synaptic transmission 2/13
 - synchrotron radiation facilities 1/380
 - SYPRO 2/16
 - SYTO 2/16
 - SYTOX Dyes 2/17
 - t**
 - TAG 2/33
 - TAMRA 2/40
 - tandem mass spectrometry (MS/MS) 2/122, 2/124, 2/168 ff, 2/257

- collision-induced dissociation (CID) 2/168
- discharge-on 2/169
- filament-on 2/169
- in-source-CID 2/169
- MSⁿ 2/168
- TCS (total (or target) current spectroscopy) 1/510
- technique
 - microsampling 1/98
 - sampling 1/94
- TEELS (transmission electron energy loss spectroscopy) 1/535, 1/562
- TEM (transmission electron microscopes) 1/535, 1/562
- temperature of different excitation sources 1/436
- temperature, electron 1/435 f
- temperature, excitation 1/435 f
- temperature, gas 1/435 f
- temperature, ionisation 1/435 f
- temperature, rotational 1/434, 1/436
- tensors
 - quadrupolar 1/273
- term scheme 1/425
- tertiary structure 1/349
- tertiary structure characterisation 353
- tetracycline antibiotics 2/68
- tetraethylrhodamine derivatives 2/29
- tetramethylrhodamine isothiocyanate 2/29
- Texas Red 2/51
- thallium acid phthalate 1/391
- thermoelectrically cooled ED detectors 1/389
- thermometric probe 1/434
- Thermoquest 2/266
- thermoreflectance 1/561
- thermospray ionization (TSP) 2/172 ff
 - fungicides 2/172
 - herbicides 2/172
 - pesticides 2/172
 - sulfonated azo dyes 2/172
 - surfactants 2/172
- thia-carbocyanines 2/19
- thiazole green (TAG) 2/33
- thiazole orange 2/29
- thin film approach 1/412
- thin films 1/77
- thin samples 1/96
- thin-film samples 1/402
- thiol
 - indicator for red cell membrane, probing 2/14
- thioureas
 - agricultural soil 2/222
 - chemical degradation 2/222
 - crop 2/222
 - degradation products 2/220, 2/222
 - estuarine waters 2/220
 - fruits 2/222
 - metabolites 2/222
 - MS/MS 2/221 f
 - natural waters 2/221
 - photolysis products 2/222
 - quantification 2/220 ff
 - river water 2/221
 - surface water 2/196, 2/221
 - water 2/196
- three-dimensional arrangement of elements 1/510
- three-photon excitation (3PE) 2/58
- thrombin 2/24
- thyroid-stimulating hormone (TSH) 2/83
- TIAFT 2/494
- time of flight 1/338
- time-resolved emission spectra 1/146
- time-resolved fluorescence 2/10, 2/55
- time-resolved fluorescence polarization 1/150
- time-resolved surface enhanced fluorescence 2/91
- Ti-Sapphire laser 2/45
- titanium dioxide waveguide 2/83
- TMA-DPH 1/151
- TO 2/29
- tobacco mosaic virus (TMV) 2/101
- TOCSY 1/173
- TOF ERDA (time-of-flight ERDA) 1/522
- TOF-SIMS 2/125
- TO-PRO 2/17
- Torch 1/473, 1/474
- torsion modes 1/42
- torsional angle 1/298, 1/312
- total angular momentum 1/423
- total correlation spectroscopy (TOCSY) [homonuclear Hartmann-Hahn (HOHAHA)] 2/109
- total internal reflection (TIR) 2/72 f
- total internal reflection fluorescence (TIRF) 1/155, 2/91 ff
- total quantum number 1/423
- total suppression of sidebands 1/282
- TOTO 2/17
- TOTO dimers
 - synthesis of 2/29
- toxicological analysis 1/344
- toxins 2/154, 2/213
 - CE-MS 2/213
 - LC-MS 2/213
 - MS/MS 2/213
 - seafood 2/213

- training set 2/456
- trans and gauche conformations 1/298
- TransFluorSpheres 2/57
- transformation
 - Fourier 1/51
 - Kubelka-Munk 1/97
- transition
 - charge transfer 1/132, 1/134
 - d-d 1/132
 - electronic 1/125
 - $n \rightarrow \pi^*$ 1/132
 - $\pi \rightarrow \pi^*$ 1/132
 - semiconductors 1/134
 - single-quantum 1/273
- transmissible spongiform encephalopathy (TSE) 2/6
- transmission measurements 1/71
- transmission spectroscopy 1/582
- transverse electric (TE) wave 2/72
- transverse magnetic (TM) wave 2/72
- transverse relaxation 2/98
- transverse relaxation optimized spectroscopy (TROSY) 2/95, 2/98
- transverse resonance condition 2/78
- trapped-ion mass analysers 1/339
 - dynamic traps 1/339
 - ion cyclotron resonance 1/339
 - static traps 1/339
- trapping efficiency 2/244
- TR-FIA 2/55
- triazine 2/88, 2/181 f, 2/223
 - APCI-FIA-MS 2/199
 - APCI-FIA-MS/MS 2/199
 - APCI-LC-MS 2/199
 - degradation pathways 2/182
 - degradation products 2/182, 2/198, 2/223
 - drinking water 2/223
 - estuarine waters 2/182
 - groundwater 2/223
 - metabolites 2/224
 - MS/MS 2/224 f
 - natural waters 2/198
 - photolysis 2/224
 - physicochemical degradation 2/224
 - quantification 2/223 ff
 - rivers 2/198
 - river water 2/223
 - SFC-MS 2/223
 - soil samples 2/182
 - stability 2/198
 - surface water 2/198
 - water 2/198
- trifluorofluoresceins (Oregon Green) 2/11
- trinitrotoluene (TNT) 2/87
- triple resonance experiments (in NMR) 2/119
- triplett state 1/425
- TRITC *see* tetramethylrhodamine isothiocyanate
- trivial quenching 1/144
- TRXRFA (total reflection X-ray fluorescence analysis) 1/550
- tryptophans 1/141, 2/15
- TSE *see* transmissible spongiform encephalopathy
- TSP
 - alcohol ethoxylates (AEO) 2/175
 - alkyl polyglucosides 2/175
 - anilides 1/176
 - carbamates 2/177 ff
 - interlaboratory examination 2/178
 - quantification 2/177
 - degradation pathways 2/182
 - degradation products 2/182
 - dyes 2/173
 - EEC Drinking Water Directive 2/178
 - estuarine waters 2/182
 - explosives 2/174
 - fluorine-containing surfactants 2/175
 - fungicides 2/176, 2/183
 - herbicides 2/176, 2/183
 - miscellaneous 2/183
 - organophosphorus compounds 2/179
 - quantification 2/179
 - pesticides 2/176
 - phenoxycarboxylic acids 2/179
 - phenylureas 2/180
 - polycyclic aromatic hydrocarbons (PAH) 2/174
 - quantification 2/180 f
 - quaternary amines 2/176
 - seafood 2/176
 - soil samples 2/182
 - sulfonylureas 2/180
 - surfactants 2/175
 - thiocyanate 2/176
 - thioureas 2/180
 - toluidines 2/176
 - toxins 2/176
 - triazines 2/181
 - urea
 - interlaboratory study 2/181
 - urea pesticides 2/180
 - quantification 2/180
- TSP, LC-MS 2/172 ff
 - anilides 2/173
 - carbamates 2/173
 - dyes 2/173
 - explosives 2/173

- fungicides 2/173
 - herbicides 2/173
 - organophosphorus compounds 2/173
 - pesticides 2/172 f
 - phenoxycarboxylic acids 2/173
 - phenylureas 2/173
 - polycyclic aromatic hydrocarbons 2/173
 - quaternary amines 2/173
 - sulfonylureas 2/173
 - surfactants 2/172
 - thiocyanate 2/173
 - thioureas 2/173
 - toluidines 2/173
 - toxins 2/173
 - triazines 2/173
 - TSP, review
 - dyes 2/173
 - general 2/173
 - pesticides 2/172
 - surfactants 2/172
 - tubulin
 - conjugates 2/17
 - transport in neurons 2/17
 - twisting 1/42
 - two line background correction 1/456 f
 - two-dimensional (2D) NMR 1/292
 - heteronuclear 1/292
 - homonuclear 1/292
 - two-dimensional (2D) NMR
 - experiment 2/105
 - two-dimensional experiments
 - anisotropic-isotropic correlation 1/300
 - CSAs 1/300
 - two-dimensional HPLC 2/127
 - as sample 2/127
 - prep in MS 2/127
 - two-dimensional NMR 1/218
 - two-photon excitation (2PE) 2/58
 - two-photon fluorescence excitation 2/61
 - single step bioaffinity assays 2/58
 - TXRF or TRXRF (total reflection X-ray
 - fluorescence 1/580
 - type standardization 1/410, 1/412
 - tyramide signal amplification (TSA) 2/16
 - tyramide-labeled dyes 2/16
 - tyrosine 2/15
- u**
- UHV (ultra high vacuum) 1/506
 - Ulbricht sphere 1/79
 - ULS 2/18
 - ungicides 2/192
 - groundwater 2/192
 - river water 2/192
 - univariate methods 2/456
 - Universal Linkage System (ULS) 2/18
 - Unscrambler 2/467
 - unsupervised learning 2/444
 - UPES, UVPES, UPS, UVPS (ultraviolet photoelectron spectroscopy) 1/583
 - UPS (ultraviolet photoelectron spectroscopy) 1/508, 1/591
 - urea 2/69
 - urea pesticides
 - quantification 2/180
 - uric acid 2/21
 - UV shifts due to structure 2/382
 - UV/VIS
 - absorption 1/44
 - spectroscopy 1/125
 - structural analysis 1/129
- v**
- vapour generation techniques 1/447 ff
 - variable angle correlation spectroscopy (VACS) 1/300
 - Varian Inc. 2/266
 - vibration
 - normal 1/99
 - vibrational circular dichroism (VCD) 2/94
 - vibrational mode 1/558, 1/578
 - vibrational relaxation 1/45
 - vibrations
 - combination 1/54, 1/104
 - overtone 1/54, 1/104
 - stretching 1/42
 - VIS/NIR dyes 2/28
 - volatile organic compounds (VOCs) 2/256
- w**
- wagging modes 1/42
 - Walsh 1/436
 - water analysis 2/154
 - waveguides 2/78 f
 - monomodal 2/79
 - multimodal 2/79
 - wavelength 1/367
 - wavelength modulation background correction 1/462
 - wavelength-dispersive XRF 1/390
 - wavenumber 1/39
 - weakly aligned systems 2/95
 - WebBook 2/490, 2/500
 - wheat germ agglutinin (WGA) 2/21
 - white optics 1/91
 - Wilatz 1/436
 - Wiley Registry of Mass Spectral Data 2/491
 - Wiley-SIMS database 2/494

window material 1/71
 windowless homonuclear decoupling
 sequences
 – DUMBO-1 1/299
 – FSLG 1/299
 – PMLG 1/299
 WISE (wide line separation) 1/176
 Wollaston 1/436
 Woodward 1/125

x

XAFS (X-ray absorption fine structure) 1/584
 XANES (X-ray absorption near edge
 spectroscopy) 1/584
 xanthenes 2/10
 xantine 2/21
 XAPS (X-ray appearance potential
 spectroscopy) 1/508
 XCORFE 1/248
 XEAES (X-ray excited Auger electron
 spectroscopy) 1/512
 xenoestrogens 2/154
 xenon arc lamp 1/439

Xenon for IR detection 2/420
 XNDO/S 2/28
 XPD (X-ray photoelectron diffraction) 1/586,
 1/591
 XPS or XPES (X-ray photoelectron
 spectroscopy) 1/587
 X-ray crystallography 2/6
 X-ray detectors 1/384
 X-ray fluorescence 2/429
 XRF (X-ray induced fluorescence) 1/550
 XSW (X-ray standing wave) 1/591

y

YO-PRO 2/17
 YOYO 2/17

z

Zeeman background correction 1/458ff
 Zeeman effect, anomalous 1/458
 Zeeman effect, longitudinal 1/460
 Zeeman effect, normal 1/458
 Zeeman effect, transverse 1/458
 zinc selenide 2/78