



## SUBJECT INDEX

- Acceptance criteria 310  
Accuracy 310, 796  
Acidity constants 752  
Activated carbon 735  
Active components 431  
Active pharmaceutical ingredient 66, 477, 486, 757  
Adsorptive stripping voltammetry 290  
Affinity electrokinetic chromatography 76  
Alkylating agent 486  
Aloe-emodin 776  
Amikacin 294  
3-Amino-3-azabicyclo[3.3.0]octane 843  
6-Aminoquinolyl-N-hydroxysuccinimidyl carbamate (AQC)  
294  
Amlodipine 147  
Amoxicillin 648  
Amperometric detection 843  
Amperometric determination 54  
Ampules 606  
Anaesthetics 587  
Analysis 27  
Analytical method transfer 310  
Anthracyclines 305  
Antibiotics 769  
Anti-drug antibody 364  
Antigen coating 685  
Antimalarial 601  
Antioxidants 22, 455  
Anti-TB FDCs 892  
API 928  
Apoptosis 712, 853  
Arctiin 697  
Artemisiae Capillaris Herba 60  
Assay 681, 1051  
Assay sensitivity 972  
Assay validation 364  
Asymmetric membrane film-coated tablets 543  
Atazanavir 791  
Atmospheric pressure chemical ionization 718  
ATP depletion 811  
Aviscumine 972  
3-Azabicyclo[3.3.0]octane 843  
Baicalin 593  
Basic compounds 104  
Benazepril 147  
Benzimidazole drug 275  
Benzocaine 920, 956  
Benzyl alcohol 920  
Binding 263  
Binding constant 572, 877  
Binding thermodynamics 404  
Bioactivation 1014  
Bioanalysis 206  
Biodistribution 170  
Bioequivalence 670  
Biological assays 572  
Biological fluids 349  
Biological samples 376  
Blood 411  
Bovine 418  
Bovine serum albumin 1046  
Bovine spongiform encephalopathy 418  
Bridging 685  
Bromazepam 322  
Brush border membrane 861  
BSA 263  
BSE 418  
Budesonide 196  
Bulk drugs 349  
Bupivacaine 587  
 $\delta^{13}\text{C}$  66  
C1311 46  
Calcium folinate 757  
Calculated log *P* 1057  
Calibration 730  
Capillary electrophoresis 60, 322, 399, 431, 559, 636, 691  
Capillary zone electrophoresis 843  
Carbamazepine 181  
CART 91  
Catalysis 892  
Cd4k 811  
CE 853, 983  
Cefazolin 1051  
Cefepime 996  
Cefetamet 752  
Cefotaxime 752  
Ceftazidime 996

- Ceftriaxone 752  
 Cells 328  
 Cephalosporins 752  
 Cerium(IV) 139  
 Cetirizine 543  
 Characterization 928  
 Chemiluminescence 22, 455, 886  
 Chemometrics 1068  
 Chinese patent formula 697  
 Chinese proprietary medicine 697  
 Chiral 815  
 Chiral HPLC 425, 796  
 Chiral separation 691  
 Chiraldak AD-H 796  
 Chitosan oligomers 177  
 Chlorogenic acid 697  
 Chlorpheniramine 285  
 Chlortetracycline 523  
 Cholesterol oxidase 718  
 Chromatography 349, 848  
 Cinnamates 22  
 Ciprofloxacin 769  
 Clonazepam-containing tablets 17  
 Cobalt 281  
 Collagen 418  
 Commercially available polysaccharide-based chiral stationary phases 425  
 Complexation 877  
 Complexation constant 877  
 CoMSIA 1057  
 Conductometry 877  
 Contact lenses 187  
 Continuous hemodiafiltration 996  
 Contrast agent 746  
 Copper determination 735  
 Copper oxide 951  
 Correlation 900  
 Corticosteroid 196  
 COX-2 inhibitors 349  
 Cross-validation 830  
 Crystal structure 27  
 Crystallite size 951  
*Curcuma* 552  
 Curcumin analysis 132  
 Cyanide 1014  
 Cyclic voltammetry 1051  
 $\beta$ -Cyclodextrin 495  
 $\beta$ -cyclodextrin 824  
 Cyclodextrin 956  
 Cyclopropyl nitrones 1057  
*p*-Cymene 681  
 CYP3A4 612  
 $\delta$ D 66  
 Daizdein 125  
*Dalbergia odorifera* 469  
 Dansyl chloride 411  
 Database 196
- Daunomycin 404  
 Dc-polarography 1051  
 Degradation 196  
 Degradation products 46, 523, 593, 914  
 Deoxycholic acid 861  
 Deoxyribose assay 455  
 Derivative spectroscopy 1068  
 Derivatization 246, 294  
*Dermatophilus congolensis* 990  
 Determination 328  
 Dextromethorphan 285  
 Di(2-ethylhexyl)phthalate 1036  
 Diacerhein 776  
 Diacetylmorphine 944  
 Dibenzazepines 139  
 Diclofenac 315  
 4-(Diethylamino)benzaldehyde 724  
 4-(Diethylamino)benzaldehyde *o*-methyloxime 724  
 Diffusion 156  
 Diloxanide furoate 819  
 Diode array detection 147  
 Diphenhydramine 285  
 2,2'-Diselenadibenzoic acid 263  
 Dissolution 543, 900  
 Dissolution profiles 17  
 Dissolution properties 824  
 DNA base excision repair 724  
 DNA fragmentation 853  
 DNA intercalators 177  
 L-Dopa 54  
 Doping control 1042  
 Double antigen 685  
 Doxorubicin hydrochloride 305  
 Drug absorption 91, 1021  
 Drug delivery 956  
 Drug discovery 8  
 Drugs 1036  
 Dynamically coated capillaries 322  
 Electrochemical detection 60, 431  
 Electrochemical reduction 535  
 Electron paramagnetic resonance spectrometry 593  
 Electrophoresis 187  
 Electrospray tandem mass spectrometry 268  
 ELISA 246, 418, 972  
 ELSD 495  
 Enantiomer 164  
 Enantiomer separation 815  
 Energy transfer 1046  
 Enzyme 612  
 Enzyme immunoassay 364, 685  
 Epirubicin hydrochloride 305  
 Equivalence test 310  
 Erythrocytes 636  
 Esculetin 125  
 Esculin 125  
 Ethambutol hydrochloride 892  
 Excipients 206, 1063

- Exhalation 746  
Ezetimibe 517
- Famotidine 677  
Fenofibric acid 661  
Fermentation broth 564  
Flavonoid 164  
Florfenicol 983  
Flow cytometry 712  
Flow injection 290  
Flow injection analysis 117  
Flow injection analysis, FIA 281  
Flow system 54  
Flow-injection analysis 606  
Fluorescence 263, 581  
Fluorescence quenching 404, 740, 1046  
Fluorescence resonance energy transfer 740  
Fluorescence spectroscopy 257, 572  
Fluorometric assay 334  
Fluoroquinolones 438, 1046  
Folin–Ciocalteu's reagent 837  
Foodstuff 376  
Forced degradation 503, 781  
Formulation 206  
Fosfestrol 559  
Freeze-dried formulation 877  
FT-Raman 275
- Gas chromatography 531, 681  
Gas chromatography–mass spectrometry 552  
GC–EI-MS 111  
GC–MS 246, 486, 746, 1042  
Gel 920  
Gelatine 418  
Gels 606  
Gene delivery 177  
Gliclazide 843  
Glimepiride 928  
Glycolysis 636  
Glycyrrhizin 697  
Gravimetric solubility 344
- Hanging mercury drop electrode 290  
Headspace 746  
Heparin 861  
Heroin 944  
Hesperetin 572  
Hesperidin 572  
High performance liquid chromatography 697  
High throughput 601  
High-performance liquid chromatography 104, 181, 328, 757  
High-throughput screening 8  
HMDE 177  
HPLC 8, 170, 299, 305, 376, 411, 495, 581, 624, 648, 677, 697, 776, 801, 805, 819, 871, 908, 928, 983, 990, 996, 1057  
HPLC/ESI-MS/MS 39  
HPTLC 581, 801
- HPTLC method 132  
HSA 263  
Human plasma 661, 1006  
Human serum 718  
Human serum albumin 76, 404, 740  
Hydrogen peroxide 22  
2-Hydroxypropyl- $\beta$ -cyclodextrin 495, 572  
Hyoscyamine 117  
Hypercholesterolemia 517
- IAsys 404  
Ibandronate 246  
ICH 781  
ICP-OES 735  
Idarubicin hydrochloride 305  
Immobilized artificial membranes 908  
Immunogenicity 364  
Immuno-PCR 972  
Impurities 322  
Impurity analysis 477  
In silico prediction 91, 1021  
In vitro models 1063  
Inclusion complex 824  
Increasing sensitivity 718  
Indirect UV detection method 636  
Infrared spectroscopy 444  
Inhalation 944  
Inhibition 334  
Integration 830  
Interlaboratory study 104  
Ion pairs 438  
Ion-exchange 438  
Ion-interaction chromatography 438  
Ion-selective electrodes 117  
Ion-suppression 206  
Irinotecan 581  
Iron(II)-phthalocyanine 315  
Isocratic reversed-phase system 769  
Isomerization 819  
Isoniazid 892  
Isonicotinyl hydrazone 892  
Isorhamnetin 328  
ISPE 310
- Kaempferol 328  
Kallikrein 848  
Ketoprofen 606, 624  
Kinase assay 811  
Kinetic study 612
- Lamivudine 653, 801  
Lamotrigine 181  
Laser diffraction 900  
LC 523  
LC/ESI/MS 1031  
LC/MS 8, 805  
LC/MS/MS 206  
LC–MS 196, 217, 718

- LC–MS/MS 661, 670  
 LC–MS–MS 631  
 Light scattering 1063  
 Limonin 1031  
 Lipid peroxidation 455  
 Lipophilic additives 315  
 Lipophilicity 1057  
 Liquid chromatography 601, 624, 724, 914, 920  
 Liquid chromatography/mass spectrometry 587, 593, 618  
 Liquid chromatography–tandem mass spectrometry 1036  
 Local anesthetic 956  
 $\log P$  225  
 Lomefloxacin 769  
 Loratadine 217  
 Lorazepam 268  
 LPME 477  
 Luminescence 811  
 Lymphoblasts 712
- Macrolide antibiotics 376  
 MARS 1021  
 Mass spectrometric shift technique 39  
 Mass spectrometry 411, 848  
 Mass spectrometry detection 46  
 Mathematical/statistical evaluation 837  
 Mechanical activation 1  
 Mechanism 892  
 Medicinal preparations 125  
 MEEKC 322  
 MEKC 322  
 Meloxicam 257  
 Mepivacaine hydrochloride 444  
 Metabolism 643, 1014  
 Metabolite profiling 233  
 Metabolites 225  
 Metabolome analysis 636  
 Metabonomics 156, 830  
 Method development 819  
 Method development and validation 543  
 Method optimization 531  
 Method validation 364, 661, 819  
 Methoxyamine 724  
 Methylene blue 740  
 Metronidazole benzoate 819  
 Micellar electrokinetic chromatography 653  
 Michaelis–Menten analysis 612  
 Microdialysis 399, 730  
 Microemulsions 1063  
 Microplate scintillation counter 233  
 Microwave-assisted extraction 463  
*Mitracarpus scaber* 990  
 Modafinil 1042  
 Monocolins 82  
*Monascus purpureus* 82  
 Mono(2-ethylhexyl)phthalate 1036  
 Monolithic column 677  
 Morphine 964  
 Morphine-3-glucuronide 964
- Morphine-6- $\beta$ -glucuronide 964  
 Mucins 187  
 Multicommutation 886  
 Multienzyme redox system 334  
 Multimodal elution mode 425  
 Multiple linear regression 225  
 Multiple reaction monitoring 670, 1006  
 Multivariate analysis 837
- $\delta^{15}\text{N}$  66  
 Nalidixic acid 769  
 Nanoelectrospray analysis 8  
 Nanoparticles 495  
 Naproxen 463, 624, 643, 815  
 Naproxen glucuronide 643  
 Nebivolol 1006  
 Necrosis 712  
 Neutral compounds 104  
 Nevirapine 801  
 Nimesulide 257  
 NIR diffuse reflectance 17  
 Nitrofurantoin 27  
 NMR spectroscopy of biofluids 156  
 No net flux 730  
 Non-aqueous capillary electrophoresis 125, 285, 322  
 Non-steroidal anti-inflammatory drugs 531  
 Norfloxacin 769  
 Normalization 830  
 NSAIDs 349  
 Nuclear magnetic resonance (NMR) 830
- $\delta^{18}\text{O}$  66  
 Octanol–water partition coefficients 908  
 Ofloxacin 769  
 Omeprazole 631  
 On-line preconcentration 735  
 $\mu$ -Opioid receptor 964  
 Organic solvent solubility 344  
 Osmotic drug delivery 543  
 Oxidation 139  
 Oxprenolol enantiomers 76
- Paclitaxel 170  
 PAMPA permeability 8  
 Parallel-beam transmission PXRD 1  
 Parenteral solutions 735  
 Partial filling technique 76  
 Partial least-squares regression 1068  
 Particle size distribution 900  
 PAT 510  
 PCA 837  
 PC12 cells 853  
 Penicillamine 281  
 Peptides 418  
 Perfluorobutane 746  
 Performance of the columns 425  
 Permanganate oxidation 886  
 Permeability 624

- Permeability-screening 8  
Pharmaceutical 281, 310, 349, 510, 559, 653, 914  
Pharmaceutical analysis 139, 315  
Pharmaceutical dosage forms 920  
Pharmaceutical formulation 535  
Pharmaceutical materials 66  
Pharmacokinetic study 1006  
Pharmacokinetics 170, 217, 268, 299, 399, 411, 661, 705, 972  
Phase transformation 1  
Phenobarbitone 181  
Phenol red 624  
Phenothiazines 139  
Phenytoin 181  
Photo diode array detection 46  
Pig 730  
Pipamperone 914  
Piperacillin 339  
Piperazine 601  
Piretanide 871  
*Plantago L.* 837  
Plasma 411, 677  
PLS 510  
Poly(methyl vinyl ether-co-maleic anhydride) 495  
Polyethylenimine (PEI) 177  
Polymeric micelle 170  
Polymorphism 27, 444  
Polymorphs 1  
Polyphenols 22, 837  
Polysorbate 206  
Porcine 418  
Positional isomer 111  
Potentiometry 117, 315, 752  
Precursor 111  
Premix 275, 564  
Premixes 523  
Pressurized liquid extraction 552  
Prevalidation strategy 837  
Principal component analysis (PCA) 156, 830  
Propiverine 670  
Propofol 411  
Propolis 455  
Propranolol 886  
Propylparaben 920  
Protease inhibitors 791  
Pseudoephedrine 285, 543  
Pseudoephedrine sulfate 217  
Pseudopolymorphism 27  
Puerarin 125  
Purification 848  
PVC membrane sensors 315  
Pyrazinamide 892  
  
QSAR 1021, 91  
QSRRs 225  
Quality assurance 681  
Quality control 310, 552, 581, 776, 920  
Quantification 246, 275, 972  
Quantitative 510  
Quantitative analysis 705  
Quantitative radioreceptor assay 964  
Quercetin 328  
Radiochromatographic detection 233  
Raman 510  
Rat lung tissue 618  
Rat plasma 1031  
Ratio spectra 871  
Rats 411  
Regional in situ perfusion 624  
Related impurities 928  
Related products 564  
Resonant mirror biosensor 404  
Retention/pH profile 438  
Reversed-phase chromatography 463, 791, 1006  
Reversed-phase high performance liquid chromatography 469, 543  
Reversed-phase HPLC 164, 225, 33, 517, 705  
Reversed-phase liquid chromatography 46, 294, 564  
Reverse-phase HPLC 206  
Rhein 776  
Ricobendazole 225  
Rifampicin 892  
Rosemary 431  
Rosuvastatin 661  
Roxithromycin 618  
RP-LC 503, 781  
RP-TLC 908  
Ruggedness 796  
Rutin 125  
  
Salinomycin 564  
Screen-printed gold electrode 54  
SDS 263  
Selected ion monitoring 486  
Separation of enantiomers 531  
Sertraline 290  
Serum 181, 964  
Serum albumin 257  
Sesquiterpenes determination 552  
Shelf life 339  
Sialic acids 187  
Simulation 310  
Single pass intestinal perfusion 624  
Smoking 944  
Solid phase extraction 225, 601, 791  
Solid-phase microextraction 477  
Solid-phase reactor 281  
Solid-state polymorphs 275  
Solubility 824  
Solubility determination 344  
Solubility measurements 572  
Solubility screening 344  
Solution and mobile phase stability 503, 781  
Solvent extraction 564  
SPE 477  
Spectral editing 156

- Spectrofluorimetry 139  
 Spectrophotometry 349  
 SPME 477  
 SPME-LC 643  
 Square-wave stripping voltammetry 1051  
 SSRI 290  
 Stability 275, 339, 523, 593, 996  
 Stability indicating 132, 769, 776, 871  
 Stability indicating RP-HPLC 147  
 Stability-indicating assay method (SIAM) 82  
 Stabilization 196  
 Stable isotopes 66  
 Statins 712  
 Stavudine 801  
 Stereospecific 164  
 Steroid 718  
 Stimulants 1042  
 Stress tests 82  
 Structure elucidation 39  
 Substituted coumarins 908  
 Sulfated- $\beta$ -cyclodextrin 691  
 Sulfathiazole 27  
 Sulfonate esters 477  
 Sulfonic acid esters 477  
 Supercritical fluid chromatography 815  
 Suppositories 463  
 Surface plasmon resonance 861  
 Surfactants 1063  
 Suspension-emulsion 275  
 Swertia Mussotii Franch 60  
 Synthetic isotope fractionation 66  
 Synthetic pathways 66  
 Syrup samples 1068
- T*<sub>2</sub> relaxation 156  
 Tablet 510  
 Tablets 517  
 Tamra bhasma 951  
 Tamsulosin 691  
 Tandem mass spectrometry 705, 1006  
 Tazobactam 339  
 Tazocin 339  
 Tea tree oil 681  
 Tears 187  
 Thalidomide 299  
 Theophylline 27, 1068  
 Therapeutic drug monitoring 791, 964  
 Thermal analysis 444, 944  
 Thermodynamic parameters 740, 1046  
 Thermogravimetric analysis 344  
 Tiopronin 334  
 TLC 871
- TMARS 1021  
 Tocopherol 33  
 D-Tocopheryl acid succinate 33  
 TopCount 233  
 Topical formulation 455  
 Topiramate 66  
 Topotecan 581  
 Toxicology 1063  
 Trace assays 486  
 Traditional medicine 951  
 Trimebutine 399  
 Trimethoprim 824  
 Triterpenic acids 990  
 Tween 206  
 Tyrosine kinase inhibitors 705
- Ultrasound 746  
 Ultraviolet detection 724  
 UPGMA 837  
 UPLC 805  
 Urine 643  
 UV-detection 33, 164, 983  
 UV-vis spectrophotometry 606  
 UV-vis spectroscopy 572, 1046
- Validation 132, 503, 535, 681, 730, 781, 796, 920, 964, 983  
 Variable ranking 91  
 Variable temperature X-ray powder diffraction (VT-XRPD) 27  
 Vectors 177  
 VEGFR inhibitors 705  
 Vinorelbine bitartrate 39  
 Vitamin E 33  
 Voltammetric method 535  
 Volume-weighted mean diameter 900
- Warfarin 315  
 96-Well 601  
 Whole compact analysis 1
- XPS of copper oxide 951  
 X-ray diffraction (XRD) 27  
 X-ray diffraction 444  
 XRD 951
- Yin Qiao Jie Du tablet 697
- Zafirlukast 535  
 ZD6474 705  
 Zidovudine 653  
 ZTR-5 796  
 Zwitterions 438