

# CONTENTS

## — Reviews —

Yagi A. : Chemical and Pharmacological studies on <i>Angelica keiskei</i> . . . . .	1
Tamai G., Imai H. : High Performance Liquid Chromatographic Determination of Drugs by Direct Injection of Whole Blood and Tissue Homogenate Samples. . . . .	25
Sugino E., Hibino S. : The Constraction of Pyridine Nucleus and Condensed Pyridine Nucleus by Electrocyclic Reaction of Conjugated Azahexatriene Systems. . . . .	43

## — Original articles —

Masujima T., Munekane Y., Kawai C., Yoshida H., Imai H., L. Juing-Yi and Sato Y. : Photoacoustic Imaging Immuno Assay for Biological Components Microanalysis. . . . .	73
Motoshima A., Sera M., Funakoshi T., Shoji S., Kubota Y., and Ueki H. : Electrophoretic and Spectroscopic Analyses of Equine $\alpha_2$ -Macro- globulin with Cleavage of the Thiol Ester Bonds by Methylamine. . . . .	74
Kaneo Y., Tanaka T., Fujihara Y., Mori H., and Iguchi S. : Delivery of glutathione, as a dextran conjugate, into the liver. . . . .	76
Sato T., Kanke M., H.G. Schroeder, and P.P. DeLuca : Porous Biodegradable Microspheres for Controlled Drug Delivery. I. Assessment of Processing Conditions and Solvent Removal Techniques. . . . .	77
P.P. DeLuca, A.J. Hickey, A.M. Hazrati, P. Wedlund, F. Rypacek and M. Kanke : Porous Biodegradable Microspheres for Parenteral Administration. . . . .	79
Hashimoto K., Inoue O., Goromaru T., and Yamasaki T. : Effect of reserpine on biodistribution of $^3\text{H}$ -Ro 15-1788 in brain. . . . .	80
Hashimoto K., Inoue O., Goromaru T., and Yamasaki T. : Changes in <i>In Vivo</i> Binding of $^3\text{H}$ -Ro 15-1788 in Mouse Brain by Reserpine. . . . .	81

Hashimoto K., Inoue O., Itoh T., Goromaru T., and Yamasaki T. : Study on Measurement of Free Ligand Concentration in Blood and Quantitative Analysis of Brain Benzodiazepine Receptor. ....	83
Sakura.S., Imai H., Anzai H., and Moriya T. : Voltammetric Study of Organic Metals. I. The Determination of the Electrochemical Conditions for Crystal Growth. ....	85
Sakura S., Imai H. : Determination of Sub-nmol Hydrogen Peroxide by Electrochemiluminescence of Luminol in Aqueous Solution. ....	86
Nakamura A., Nakashima M., Sugao T., Kanemoto H., Fukumura Y., and Shiomi H. : Potent Antinociceptive Effect of Centrally Administered Delta-Sleep-Inducing Peptide(DSIP). ....	87
Takeo S., Tanonaka K., Miyake K., and Imago M. : Adenine Nucleotide Metabolites are Beneficial for Recovery of Cardiac Contractile Force after Hypoxia. ....	88
Takeo S., Tanonaka K., Hirano T., Miyake K., and Okamoto J. : Cerebro-protective Action of Naftidrofuryl Oxalate I : Prolongation of Survival Time and Protection of Cerebral Energy Metabolism in Bilateral Carotid Artery-Ligated Mice. ....	90
Takeo S., Tanonaka K., Miyake K., and Fukumoto T. : Role of ATP metabolites in induction of incomplete recovery of cardiac contractil force after hypoxia. ....	92
Takeo S., Tanonaka K., Tazuma Y., Fukao N., Yoshikawa C., Fukumoto T., and Tanaka T. : Diltiazem and Verapamil Reduce the Loss of Adenine Nucleotide Metabolites from Hypoxic Hearts. ....	94
Takeo S., Tanonaka K., Matsumoto M., Miyake K., and Minematsu R. : Cardioprotective Action of Alpha-Blocking Agents, Phentolamine and Bunazosin, on Hypoxic and Reoxygenated Myocardium. ....	96
Tanonaka K., Matsumoto M., Murai R., Miyake K., Minematsu R., and Takeo S. : Protective Effect of Phentolamine on Hypoxic Heart. ....	98
Himeno M., Koutoku H., Tsuji H., and Kato K. : Purification and Characterization of Acid Phosphatase in Rat Liver Lysosomal Contents. ....	100

Nishimura Y., Amano J., Sato H., Tsuji H., and Kato K.: Biosynthesis of Lysosomal Cathepsins B and H in Cultured Rat Hepatocytes. ....	101
Tsuruta Y., Tomita H., and Kohashi K. : N-[4-(2-Phthalimidyl) phenyl] maleimide as Fluorescence Derivatization Reagent for Thiols. ....	103
Tomida H., Kuwada N., and Kiryu S. : Hydrolysis of indomethacin in Pluronic F-127 gels. ....	104
Hibino S., Sugino E., Choshi T., and Sato K. : Total Synthesis of Aaptamine of Potent $\alpha$ -Blocking Activity <i>via</i> Thermal Cyclization of 1-Azahexatriene Systems. ....	105
Fujita K. : Selective Synthesis and Enzymatic Degradation of Modified Cyclodextrins. ....	106
Fujita K., Yamamura H., Imoto T., and Tabushi I. : Preparation of 3 <sup>A</sup> , 6 <sup>A</sup> -Anhydro- $\beta$ -cyclodextrin and its Taka Amylolysis. ....	107
Fujita K., Tahara T., Egashira Y., Yamamura H., Imoto T., Koga T., Fujioka T., and Mihashi K. : Regiochemical Correlation between 6-O-Sulfonylated Cyclodextrins and 3-O-Sulfonylated Cyclodextrins via 3, 6-Anhydrocyclodextrins. ....	108
Fujita K., Tahara T., Imoto T., and Koga T. : Enzymatic Preparation of Specifically Modified Linear Maltooligosaccharides through Taka-amylases A-catalyzed hydrolysis of 6-O-Arenesulfonyl- $\gamma$ -cyclodextrins.....	109
Fujita K., Matsunaga A., Yamamura H., and Imoto T. : Complete Sets of Structurally Determined 6 <sup>A</sup> , 6 <sup>X</sup> -Unsymmetrically Disubstituted $\beta$ -Cyclodextrins : 6 <sup>A</sup> -S-Phenyl-6 <sup>X</sup> -O-( $\beta$ -naphthylsulfonyl)-6 <sup>A</sup> -thio- $\beta$ -cyclodextrins and 6 <sup>A</sup> -S-(tert-Butyl)-6 <sup>X</sup> -O-( $\beta$ -naphthylsulfonyl)-6 <sup>A</sup> -thio- $\beta$ -cyclodextrins. ....	110
Fujita K., Yamamura H., Imoto T., Fujioka T., and Mihashi K. : Synthesis of 6 <sup>A</sup> , 6 <sup>X</sup> -Di-O-(p-tosyl)- $\gamma$ -cyclodextrins and Their Structural Determination through Enzymatic Hrdrolysis of 3 <sup>A</sup> , 6 <sup>A</sup> ; 3 <sup>X</sup> , 6 <sup>X</sup> -Dianhydro- $\gamma$ -cyclodextrins. ....	111
Fujita K., Matunaga A., Yamamura H., and Imoto T. : 6-O-Trisubstituted $\beta$ -Cyclodextrins Whose Substituents Are Different From One Another. ....	112

Yusa T., Yamaguchi Y., Ohwada H., Hayashi Y., Kuroiwa N., Morita T., Asanagi M., Moriyama Y., and Fujimura S. : Activity of the Cytosolic Isozyme of Thymidine Kinase in Human Primary Lung Tumors with Reference to Malignancy. ....	113
Takahashi K., Tamagawa S., Katagi T., Yoshitomi H., Nishihata T., and Kamada A. : Release of sodium diclofenac from vehicles prepared with hydrogenated soya lecithin and methyl palmitate. ....	115

### Publish in 1987

Yagi A., Kanbara T., and Morinobu N. : Inhibition of Mushroom-Tyrosinase by Aloe Extract. ....	117
Yagi A., Shida T., and Nishimura H. : Effect of Amino acids in Aloe extract on Phagocytosis by Peripheral Neutrophil in Adult Bronchial Asthma. ....	118
Masujima T., Kawata H., Kataoka M, Hoshi M., Yoshida H., Sano T., Imai H., Ando M., et al. : Photoacoustic X-ray Absorption Spectroscopy. I. EXAFS II. DEPTH PROFILING. ....	119
Masujima T., Imai H., Kawata H., Amemiya Y., Hoshi M., Nagoshi C., Yoshida H., Ando M., et al. : Potoacoustic X-ray Absorption Spectroscopy. III. Application to Image Analysis. IV. Photoacoustic X-ray absorption by Gas. ....	121
Dan'ura T., Kurokawa T., Yamashita A., Higashi K., and Ishibashi S. : Inhibition of Brain Adenylate Cyclase by Barbiturates through the Effect on the interaction between Guanine Nucleotide-binding Stimulatory Regulatory Protein and Catalytic unit. ....	123
Kametani T., and Hibino S. : The Synthesis of Natural Heterocyclic Products by Hetero Diels-Alder Cycloaddition Reactions. ....	125