

Contents

Contents of Number 1/2

Original Communications

- O. Sciacovelli, A. Dell'Attì, A. De Giglio, and L. Cassidei, Studies on Phenylpyruvic Acid. I. Keto-Enol Tautomerism
 S. Ramani and S. Kannan, Inhibition of Ca^{2+} and Zn^{2+} Uptake by Mn^{2+} in Excised Rice Roots
 K. Saito, A. Komamine, and S. Senoh, Further Studies on the Biosynthesis of Stizolobinic Acid and Stizolobic Acid in the Etiolated Seedlings of *Stizolobium hassjoo* H. Wombacher and M. Reuter-Smerdka, Spectrometric and Biological Data of 1,N⁶-Ethenoadenosine 3',5'-Cyclic Monophosphate
 B. V. Burger, M. le Roux, C. F. Garbers, H. S. C. Spies, R. G. Bigalke, K. G. R. Pachler, P. L. Wessels, V. Christ, and K. H. Maurer, Studies on Mammalian Pheromones, I. Ketones from the Pedal Gland of the Bontebok (*Damaliscus dorcas dorcas*)
 H. Schmidt and P. Rosenkranz, On the Mechanism of the Acridine Orange Sensitized Photodynamic Inactivation of Lysozyme. I. Basic Kinetics
 G. G. Nöll, A Cell for Simultaneous Measurements of Optical and Electrical Properties of Black Lipid Membranes
 P. Chin and S. S. Brody, Mixed Monomolecular Films of Chlorophyll and Cytochromes
 W. Lockau and B. R. Selman, Correlation of the Photosynthetic Reduction of *p*-Diazonium-Benzene-sulfonic Acid with the Increased Binding of the Probe to the Thylakoid Membrane
 Hj. A. W. Schneider, Enzymic Capacities for Chlorophyll Biosynthesis. Activation and *de novo* Synthesis of Enzymes
 G. Döring, The Effect of Deoxycholate-Treatment to the Photoreactions of the Active Pigments in Photosynthesis
 H. Böhme, Photoreactions of Cytochrome b₆ and Cytochrome f in Chloroplast Photosystem I Fragments
 G. Döring, The Chlorophyll aII Reaction in Trypsin-Treated Spinach Chloroplasts in the Presence of Potassium Ferricyanide
 G. Kulandaivelu and D. O. Hall, Ultrastructural Changes in *in vitro* Ageing Spinach Chloroplasts
 K. Angermann, U. Grundmann, and H. Holz, Size Comparison of Poly(A)-RNA from Polysomes and from Nuclei of the Yeast *Saccharomyces cerevisiae* (In German)
 G. Reimer and D. Drahovsky, Chromosomal Structures of *Pseudomonas testosteroni*. I. Isolation and Characterization of the Chromosomal Complexes (In German)
 N. Kokolis, Variations in Melanin and Riboflavin Content of Amphibian Liver under the Influence of Reserpine and Amphetamine

Notes

- R. Harcus, P. N. Preston, and J. S. Suffolk, Synthesis of Purine and Pyrimidine Substituted Nitroxides
 S. Reimer and A. Trebst, Reversal of Dibromotheophytone Inhibition of Photosynthetic Electron Flow by Thiol Compounds
 H. Kern and J. Grüber, Redundant Nucleotide-Sequences in DNA from Wheat (In German)

- A. Lüttke, U. Rahmsdorf, and R. Schmid, Heterogeneity in Chloroplasts of Siphonaceous Algae as Compared with Higher Plant Chloroplasts 108

Contents of Number 3/4

- 5 Original Communications
 12 P. Bommer, H. Moser, W. Stichler, P. Trimborn, and W. Vetter, Determination of the Origin of Drugs by Measuring Natural Isotope Contents: D/H and $^{13}\text{C}/^{12}\text{C}$
 15 Ratios of Some Diazepam Samples (In German) 111
 18 R. Kanne and H. Zähner, Metabolic Products of Microorganisms, 151. Comparative Studies on Intracellular Potassium- and Sodium Concentrations of Wild-Type and Macrotetrolide Negative Mutant of *Streptomyces griseus* 115
 21 M. Roseghini, R. Endean, and A. Temperelli, New and Uncommon Indole- and Imidazole-Alkylamines in Skins of Amphibians from Australia and Papua New Guinea 118
 24 H. Kayser, Isolation of β,β -Caroten-2-ol from an Insect, *Cerura vinula* (Lepidoptera) 121
 29 M. G. Peter, K. H. Dahm, and H. Röller, The Juvenile Hormones in Blood of Larvae and Adults of *Manduca sexta* (Joh.) 129
 40 I. Kubota, M. Isobe, T. Goto, and K. Hasegawa, Molecular Size of the Diapause Hormone of the Silk-worm *Bombyx mori* 132
 44 H.-D. Lüdemann, E. Westhof, and I. Cuno, Ribose Conformations of 8-Azapurine Nucleosides in Solution 135
 48 G. Seibert and R. K. Zahn, Fractionated Precipitation of Acid Macropolyanions by Dialysis, a Simple Method for the Estimation of DNA in Complex Biological Samples 141
 55 C. Lesca, A. Moisand, and A. Puget, Characterization of Mitochondrial DNA from the Pika (*Ochotona rufescens*) 145
 64 D. Auer and G. Brandner, Loading of Human Red Blood Cells with DNA and RNA 149
 68 A. Trebst, Artificial Energy Conservation in Bacterial Photosynthetic Electron Transport 152
 78 G. F. Wildner, The Greening Process in *Euglena gracilis*, I. The Kinetics of Appearance of Chloroplast Proteins and the Effect of Cycloheximide and Chloramphenicol on Their Synthesis 157
 82 W. Oettmeier, J. R. Norris, and J. J. Katz, Photo-Induced Electron Transfer in Chlorophyll Containing Liposomes 163
 85 B. Schulz-Harder and E.-R. Lochmann, Initiation in a Polyribosome-Dependent Protein-Synthesizing Cell-Free System from *Saccharomyces* (In German) 169
 91 K. U. Berger and D. Schubert, Reversible Transformation of Precipitated and Nonprecipitated Lipoproteins Recombined from Proteins and Lipids of Erythrocyte Membranes 174
 98 H. P. Kulas and F. A. Anderer, Differences in the Lipid Distribution in Subcellular Fractions of Mouse Fibroblasts Derived from Logarithmic and Stationary Growth 179
 101 J. M. Amabis and K. K. Nair, Ultrastructure of Gene Transcription in Spermatocytes of *Trichosia pubescens* Morgante, 1969 (Diptera: Sciaridae) 186
 103 C. F. Bardele, Particle Movement in Heliozoan Axopods Associated with Lateral Displacement of Highly Ordered Membrane Domains 190



Dieses Werk wurde im Jahr 2013 vom Verlag Zeitschrift für Naturforschung in Zusammenarbeit mit der Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. digitalisiert und unter folgender Lizenz veröffentlicht:
 Creative Commons Namensnennung-Keine Bearbeitung 3.0 Deutschland Lizenz.

Zum 01.01.2015 ist eine Anpassung der Lizenzbedingungen (Entfall der Creative Commons Lizenzbedingung „Keine Bearbeitung“) beabsichtigt, um eine Nachnutzung auch im Rahmen zukünftiger wissenschaftlicher Nutzungsformen zu ermöglichen.

This work has been digitized and published in 2013 by Verlag Zeitschrift für Naturforschung in cooperation with the Max Planck Society for the Advancement of Science under a Creative Commons Attribution-NoDerivs 3.0 Germany License.

On 01.01.2015 it is planned to change the License Conditions (the removal of the Creative Commons License condition "no derivative works"). This is to allow reuse in the area of future scientific usage.

Notes

- S. Kannan and H. Keppel, Differential Migration of Foliar Applied Zinc in Maize Plants
 W. Steglich and K.-F. Jedtke, Novel Anthraquinone Pigments from *Solorina crocea* (In German)
 P. D. Shirk, K. H. Dahm, and H. Röller, The Accessory Sex Glands as the Repository for Juvenile Hormone in Male *Cecropia* Moths
 J. Ahlers, Th. Günther, and I. Schrandt, Kinetic Properties of Mg, Ca ATPase from Various *Escherichia coli* Mutants
 A. van de Vorst and Y. Lion, Indirect EPR Evidence for the Production of Singlet Oxygen in the Photosensitization of Nucleic Acid Constituents by Proflavine
 G. Uhlenbrück, G. Steinhausen, and B. A. Baldo, Galactans and Anti-Galactans from Invertebrates
 F. Baccichetti, F. Bordin, S. Marcianni, F. Dall'Acqua, and G. Rodighiero, Contribution of Monofunctional Adducts formed by Furocoumarins with DNA to the Inhibition of Nucleic Acids Synthesis
 H. Kern, Methylation of Transfer RNA in Plant Cells (In German)
 C. Reinke and G. Brandner, Estimation by Reassociation Assay of Viral DNA Copies in Three Polyoma Virus Transformed Cell Lines
 G. Brandner and E. Koch, Failure of Inhibition of Polyoma Virus Replication by Distamycin A
 F.-C. Czygan, "Synthetical" *Aiptasia mutabilis* RAPP (Coelenterata) (In German)
 E. Weber, The Influence of the Sample Size upon the Result of an Analysis of Variance in Long-Stemmed and Short-Stemmed Mutants of *Pisum sativum* (In German)

Contents of Number 5/6

Original Communications

- P. Schuster, K. Tortschanoff, and H. Winkler, Proton Transfer Reactions of Dibasic Acids in Aqueous Solution: 3-Hydroxypyridine (In German)

H. Zehner, W. Flossmann, and E. Westhof, Formation of H-Addition Radicals in Adenine Derivatives

S. R. Nassif, C. Baumgartner, M. Sellers, and L. May, Studies on the Undecapeptide of Ferricytochrome c Using ESR, Mössbauer and Visible Spectroscopies

J. Berger, I. Pilz, R. Witters, and R. Lontie, Small-Angle X-Ray and Sedimentation Studies on α -Haemocyanin *H. pomatia* (Heme Molecules) in Glycerol and Sucrose Solutions (In German)

H. A. B. Linke and C. A. Chang, Physiological Effects of Sucrose Substitutes and Artificial Sweeteners on Growth Pattern and Acid Production of Glucose-Grown *Streptococcus mutans* Strains *in vitro*

Th. Schmidt, C. Fedtke, and R. R. Schmidt, Studies on Optically Active Pesticides, I. Synthesis and Herbicidal Activity of d(+) and l(−) Methyl-2-chloro-3-(4-chlorophenyl)-propionate

M. Moskophidis, C. M. Klotz, and W. Friedrich, Co_A/Co_B-Isomerism of Corrinoids. Partial Synthesis and *Escherichia coli* Activity of Further Isomer Pairs of (Co-methyl)-Corrinoids (In German)

F. Seela and F. Hansske, Polymer Linked N-(Hexyl)-5-azido-2-nitro-benzoic Acid Amide; a Photoreactive Resin for the Immobilization of Ligands (In German)

G. F. Wildner, The Use of 1-Anilino-8-naphthalene Sulfonate as Fluorescent Probe for Conformational Studies on Ribulose-1,5-bis-phosphate Carboxylase . .

Contents

- | | | |
|-----|--|-----|
| 195 | F.-K. Lücke and J.-H. Klemme, Coupling Factor Adenosine-5'-triphosphatase from <i>Rhodospirillum rubrum</i> : A Simple and Rapid Procedure for Its Purification | 272 |
| 197 | D. Müller-Enoch, E. Seidl, and H. Thomas, 6,7-Dihydroxycoumarin (Aesculetin) as a Substrate for Catechol-O-methyltransferase (In German) | 280 |
| 199 | H. Rappold and A. Bacher, Nutritional Requirement for 4-Aminobenzoate Caused by Mutation of Dihydropteroate Synthetase | 285 |
| 201 | B. Lotz, J. Betz, and L. Träger, Properties of an Antiserum Against <i>Streptomyces hydrogenans</i> 20 β -Hydroxysteroid Dehydrogenase | 288 |
| 203 | R. Braun and H. Lange, Effect of N-Methyl-N- β -chloroethyl-hydrazine-HCl on the Growth and Multiplication of Yeast Cells (<i>Saccharomyces cerevisiae</i>) (In German) | 292 |
| 205 | R. Braun, H. Lange, U. Mangold, and R. Mangold, Effect of N-Methyl-N- β -chloroethyl-hydrazine and Its Benzaldehydhydrazone on RNA- and Protein Synthesis as Soon as Metabolism of Synchronously Growing Yeast Cells (<i>Saccharomyces cerevisiae</i>) (In German) | 298 |
| 207 | G. H. Schmid, W. Menke, F. Koenig, and A. Radunz, Inhibition of Electron Transport on the Oxygen-Evolving Side of Photosystem II by an Antiserum to a Polypeptide Isolated from the Thylakoid Membrane | 304 |
| 209 | A. Krauß and A. Hager, Growth Burst after Anaerobiosis: a "Stored-Growth" Effect in <i>Avena</i> Coleoptiles (In German) | 312 |
| 212 | R. Beiderbeck, Contact of <i>Agrobacterium</i> with Wound Cells as a Prerequisite of Tumor Induction (In German) | 317 |
| 214 | A. Schüz, Pyramidal Cells with Different Densities of Dendritic Spines in the Cortex of the Mouse | 319 |
| 215 | H. Stieve and M. Hanani, Light and Dark Adaptation of Crayfish Visual Cells Depending on Extracellular Calcium Concentration | 324 |

Notes

- | | | |
|-----|--|-----|
| 219 | N. J. F. Dodd, R. G. Harcus, and P. N. Preston, Synthesis and Electron Spin Resonance Study of Spin-Labelled Compounds Related to Tumour-Growth Inhibitory Nitroarylaziridines | 328 |
| 225 | J. L. Ingham, Isosativan: an Isoflavan Phytoalexin from <i>Trifolium hybridum</i> and other <i>Trifolium</i> Species | 331 |
| 232 | D. von Wachtendonk, Occurrence of an Acetylcholinesterase (E.C. 3.1.1.7) in the Haemolymph of the Mussel <i>Mytilus edulis</i> (In German) | 333 |
| 233 | K. Wolburg-Buchholz, The Dorsal Eye of <i>Cloënon dipterum</i> (Ephemeroptera) (A Light- and Electronmicroscopical Study) | 335 |
| 238 | J.-P. Bourgin, Valine-Induced Inhibition of Growth of Haploid Tobacco Protoplasts and Its Reversal by Isoleucine | 337 |

Contents of Number 7/8

Original Communications

- | | | |
|-----|---|-----|
| 252 | R. Zander, The Distribution Space of Physically Dissolved Oxygen in Aqueous Solutions of Organic Substances (In German) | 339 |
| 255 | V. N. Babin, E. B. Zavelovich, and E. I. Fedin, ^1H and ^{13}C NMR Study of Proton Transfer in Azoles. Mechanism of Proton Transfer in Pyrazole in Solutions Containing bis-(Acetylacetonato) Nickel (II) | 353 |
| 263 | J. Sepioł, Z. Kazimierczuk, and D. Shugar, Tautomerism of Isoguanosine and Solvent-Induced Keto-Enol Equilibrium | 361 |
| 267 | E. Westhof and M. van Rooten, MO Calculations of Some Thymine Radicals at the INDO Level | 371 |

G. Gundlach, E. L. Sattler, W. Trampisch, and U. Wagenbach, Direct Labeling of Amino Acids by Means of Hot ^{14}C -Atoms (In German)	377	J. Betz and L. Träger, Nucleoside Triphosphate Levels in <i>Streptomyces hydrogenans</i> during Growth and Induction of 20β -Hydroxysteroid Dehydrogenase	486	
M. Abdul Haleem and K. D. Parker, X-Ray Diffraction Studies on the Structure of α -Chitin	383	R. L. Brahmachary and D. Ghosal, Sulfated Macromolecules in Early Embryos of <i>Limnaea</i>	488	
F. Seela, Synthesis of 5-Azido-3-nitro- ω -bromo-acetophenone — a Photochemically Active Bifunctional Reagent for the Cross-Linking of Biopolymers (In German)	389	B. Bazin, G. Kümmel, and I. Zerbst-Boroffka, Studies on the Rectal Pads of the Honey Bee <i>Apis mellifica</i> (In German)	489	
S. Kannan and H. Keppel, Absorption and Transport of Pb^{2+} in Young Pea Seedlings	393	Contents of Number 9/10		
A. Nahrstedt, A New Cyanogenic Glycoside from <i>Sorbaria arborea</i> (Rosaceae) (In German)	397	<i>Original Communications</i>		
A. Matsuo, S. Uto, M. Nakayama, and S. Hayashi, Sesquiterpene Hydrocarbons of the Liverwort, <i>Dumortiera hirsuta</i>	401	F. Jüttner, β -Cyclocitral and Alkanes in <i>Microcystis</i> (Cyanophyceae)	491	
S. Imre and A. Öztunc, Further Anthraquinones from <i>Digitalis schischkinii</i> (In German)	403	J. Jacob and E. von Lehmann, Chemical Composition of the Nasal Gland Secretion from the Marsh Deer <i>Odocoileus (Dorcelaphus) dichotomus</i> (Illiger)	496	
B. Janistyn and M. Stocker, Enzymatic Degradation of [Ring B-U- ^{14}C]-5,7,3',4'-tetrahydroxyflavanone-7-O-glucoside to 5,7-Dihydroxychromone-7-O-glucoside and [Ring-U- ^{14}C]-1,2,4-trihydroxybenzene with a Cell Free System from <i>Mentha longifolia</i> (In German)	408	H. Arn, S. Rauscher, H.-R. Buser, and W. L. Roelofs, Sex Pheromone of <i>Eupoecilia ambiguella</i> : <i>cis</i> -9-Dodecenyl Acetate as a Major Component	499	
M. Stocker and B. Janistyn, Thallium-III-trifluoracetate Catalyzed Degradation of 5,7,3',4'-Tetrahydroxyflavanone to 5,7-Dihydroxychromone and 1,2,4-Trihydroxybenzene (In German)	411	J. L. Ingham, Induced Isoflavonoids from Fungus-Infected Stems of Pigeon Pea (<i>Cajanus cajan</i>)	504	
H. Scheer, Studies on Plant Bile Pigments: Characterization of a Model for the Phytochrome Pr Chromophor	413	D. Müller-Enoch, H. Thomas, W. Streng, W. Wildfeuer, and O. Haferkamp, O-Methylation of Epinephrine, 3,4-Dihydroxybenzoic Acid and 6,7-Dihydroxycoumarin in Yeasts (In German)	509	
A. Raschig and F. Schneider, Synthesis of a Fragment of the Active Center of the Streptococcal Proteinase (EC 3.4.22.10), IX (In German)	418	E. Kulikowska, B. Hingerty, W. Saenger, and D. Shugar, Unusual Photochemical Transformation of 5-Ethylorotate to 5-Ethylidenehydroorotate	514	
K. N. Shivaram, Purification and Properties of Potato Phosphorylase Isozymes	424	B. Hingerty, E. Kulikowska, W. Saenger, and D. Shugar, The Crystal Structure of the Pyrimidine Analogue Calcium-5-Ethylidenehydroorotate·1.5 Hydrate, a Photoproduct of Ethylorotate	518	
G. Döhler, Activity of Aminotransferases in the Blue Green Alga <i>Anacystis nidulans</i> (In German)	433	M. Overkamp, H. Twilfer, and K. Gersonde, Conformation-Controlled Trans-Effect of the Proximal Histidine in Haemoglobins. An Electron Spin Resonance Study of Monomeric Nitrosyl- ^{57}Fe -Haemoglobins	524	
W. Menke, A. Radunz, G. H. Schmid, F. Koenig, and R.-D. Hirtz, Intermolecular Interactions of Polypeptides and Lipids in the Thylakoid Membrane	436	D. Petz and F. Schneider, Synthesis and Catalytic Properties of Peptidols with Hydrolytic Activity (In German)	534	
H. Hesse, R. Jank-Ladwig, and H. Strotmann, On the Reconstitution of Photophosphorylation in CF_1 -Extracted Chloroplasts	445	J.-H. Klemme, Regulation of Intracellular Pyrophosphatase-Activity and Conservation of the Phosphoanhydride-Energy of Inorganic Pyrophosphate in Microbial Metabolism	544	
G. Kulandaivelu and D. O. Hall, Stabilization of the Photosynthetic Activities of Isolated Spinach Chloroplasts during Prolonged Ageing	452	H.-J. Breter and R. K. Zahn, An Isocratic High-Pressure Liquid Chromatographic Purification Method for Radioactively Labeled Deoxyribonucleoside Triphosphates	551	
H.-G. Wuttke, Chromoplasts in <i>Rosa rugosa</i> : Development and Chemical Characterization of Tubular Elements	456	H.-J. Breter, F. Hundt, and R. K. Zahn, The Determination of the DNA Base Composition in 19 Species of Adriatic Sponges with High-Pressure Liquid Cation-Exchange Chromatography	554	
H. G. L. Coster and U. Zimmermann, Transduction of Turgor Pressure by Cell Membrane Compression	461	W. Gradmann-Rebel and V. Hemleben, Incorporation of T_4 Phage DNA into a Specific DNA Fraction from the Higher Plant <i>Matthiola incana</i>	558	
J.-P. Liautard and J. Liautard, On the Protein Composition of Ribonucleoprotein Particles before and after Fertilization of Sea Urchin Eggs (<i>Echinus esculentus</i>)	464	H. Spiller, G. Bookjans, and P. Böger, The Influence of Oxygen on Nitrite Reduction in a Reconstituted System	565	
W. W. Fäth and M. Brendel, Isolation and Properties of Yeast Mutants with Highly Efficient Thymidylate Utilization	468	S. S. Brody and N. F. Owens, Photosynthetic Electron Carriers at a Heptane-Water Interface	569	
<i>Notes</i>		G. W. Pohl, Spectral Properties of Fluorescent Dyes in Lecithin Vesicles	575	
H.-G. Reinhardt, Structure-Reactivity Relationships and Delayed Neurotoxicity of Organophosphorus Compounds (In German)	479	A. Radunz, Localization of the Tri- and Digalactosyl Diglyceride in the Thylakoid Membrane with Serological Methods	589	
E.-R. Lochmann, C. Herrmann, I. Pietsch, and A. Michel, Distribution of [^3H]Thiopyronine in Yeast Cells (<i>Saccharomyces cerevisiae</i>) (In German)	481	G. H. Schmid, G. Renger, M. Gläser, F. Koenig, A. Radunz, and W. Menke, Effect of an Antiserum to a Thylakoid Membrane Polypeptide on the Primary Photoreaction of Photosystem II	594	
D. Lindenau, U. Hagen, and W. Schnabel, Detachment of Segments from DNA Double Strands as Detected by Time Resolved Rayleigh Light Scattering	484			

Contents

- G. Reimer and D. Drahovsky, Chromosomal Structure of *Pseudomonas testosteroni*. II. Activity of the Endogenous RNA-Polymerase (In German)
 H.-J. Lach and P. Büger, Variable Composition of Cytochromes b₆-f Particles
 W. Müller-Klieser and W. Kreutz, On the Cross-Section Structure of the Mitochondrial Cristae-Membrane as Revealed by X-Ray Diffraction

Notes

- B. Stengel and H. Geiger, Kaempferole-3-(O-sinapoyl-sophoroside)-7-glucoside, a New Flavonoid from *Brassica napus* L. (Cruciferae) (In German)
 M. A. Alizade, K. Gaede, and K. Brendel, Chirality of the Hydrogen Transfer to NAD Catalyzed by myo-Inositol Dehydrogenase from *Klebsiella pneumoniae*
 G. H. Georgiew, E. J. Zöllner, and R. K. Zahn, Different Deoxyribonuclease-Activities in Bull Seminal Plasma (In German)
 R. Riehl, A Special Attaching-Mechanism between the Cortex radiatus externus and the Follicle Epithelium of the Oocytes of *Gobio gobio* (In German)
 K. Hausen, Functional Characterization and Anatomical Identification of Motion Sensitive Neurons in the Lobula plate of the Blowfly *Calliphora erythrocephala*

Contents of Number 11/12

Original Communications

- H. Wawra, A Small-Angle-Scattering Camera of Medium Resolution without Slithigh-Error (In German)
 L. Cassidei, A. Dell'Attì, and O. Sciacovelli, Studies on Phenylpyruvic Acid. II. Keto-Enol Equilibrium in Water-Dimethylsulfoxide Mixtures
 H. Kayser, Identification of β,β-Caroten-2-ol and β,β-Carotene-2,2'-diol in the Stick Insect, *Carausius morosus* Br.; a Reinvestigation Study
 D. Urbach, M. Suchanka, and W. Urbach, Effect of Substituted Pyridazinone Herbicides and of Difunone (EMD-IT 5914) on Carotenoid Biosynthesis in Green Algae
 I. Zimmermann and H. W. Zimmermann, pK_a-Values of Ethidiumbromide and 7-Amino-9-phenyl-10-ethyl-phananthridinium-bromide (In German)
 P. Dietsch, Th. Günther, and M. Röhnel, Dissociation Constants of Ethane-1-hydroxy-1,1-diphosphonate [EHDP] and Dichloromethylene-diphosphonate [Cl₂MDP] for H⁺, Ca²⁺, Mg²⁺ and Zn²⁺
 H. Twilfer and K. Gersonde, Non-Equivalence and Inverse Allosteric Response of the α and β Chains in Haemoglobins. An Electron Spin Resonance Study of NO-Ligated Hb Kansas
 D. Petz and F. Schneider, Kinetic Analysis of the Catalytic Properties of Peptides in Ester Hydrolysis
 P. Rosenkranz and H. Schmidt, On the Mechanism of the Acridine Orange Sensitized Photodynamic Inactivation of Lysozyme. II. Kinetics in Presence of N-Acetylglucosamine
 H. Wolburg, Evidence for the Involvement of the Na⁺-K⁺-ATPase in the Mechanism of Axonal Protein and Nucleoside Transport
 E. Göbel, R. Riessner, and P. Pohl, Influence of DCMU on the Formation of Lipids and Fatty Acids, and on the Ultrastructure of *Euglena gracilis* (In German)
 W. Löffelhardt and H. Kindl, Formation of Benzoic Acid and p-Hydroxybenzoic Acid in the Blue Green Alga *Anacystis nidulans*: A Thylakoid-Bound Enzyme Complex Analogous to the Chloroplast System

- L. J. Anghileri, M. Heidbreder, and R. Dermietzel, On the Role of the Cell Coat Glycoproteins in the Permeability of the Cell 700
 M. Stromer and W. Hasselbach, Fusion of Isolated Sarcoplasmic Reticulum Membranes 703
 M. Stromer, R. The, and W. Hasselbach, The Effect of Ethylene Glycol and DMSO on Fusion of Isolated Sarcoplasmic Reticulum Membranes 708
 M. Gläser, Ch. Wolff, and G. Renger, Indirect Evidence for a Very Fast Recovery Kinetics of Chlorophyll-aII in Spinach Chloroplasts 712
 B. Schmidt and H. J. Rurainski, Light-Dependent Interactions of Phenazine Methosulfate with 3-(3,4-Dichlorophenyl)-1,1-dimethylurea-Poisoned Chloroplasts 722
 R. W. Wabnitz, A Dual Effect of Acetylcholine on Gastropod Smooth Muscle Preparations 730
 U. Zimmermann and G. Pilwat, Organ Specific Application of Drugs by Means of Cellular Capsule Systems (In German) 732
 R. T. C. Huang, Labeling of Animal Cells with Fluorescent Dansyl Cerebroside 737
 B. Ruth and F. A. Popp, Experimental Investigations on Ultraweak Photoemission from Biological Systems (In German) 741

Notes

- W. Baumeister, M. Hahn, and U. P. Fringeli, Electron-Beam Induced Conformational Changes in Polypeptide Layers: an Infrared Study 746
 M. Bühring, W. Francke, and V. Heemann, Volatile Substances from *Formica rufa* L. and *F. polyctena* Först. (In German) 748
 H.-G. Reinhardt, Reactivity and Delayed Neurotoxicity of Organophosphates (In German) 750
 V. C. W. Chu and D. W. Gruenwedel, On the Reaction of Methylmercuric Hydroxide with Methylcobalamin 753
 F. Blobel, J. Eberspächer, S. Haug, and F. Lingens, Enzymatic Formation of a *cis,cis*-Muconic Acid Derivative Using Pyrazon-Degrading Bacteria (In German) 756
 F. Blobel, J. Eberspächer, and F. Lingens, Enzymatic Formation of 4-Hydroxy-2-Oxovalerate Using Pyrazon-Degrading Bacteria (In German) 757
 F. W. Tischendorf, M. M. Tischendorf, and B. Wittmann-Liebold, Immunoglobulin Diversity: Correlation of Non-Allelic Antigenic Markers with the Basic Sequences of the Variable Region of Human Lambda Chains 758
 R. Riehl, The Yolk Nucleus in Young Oocytes of *Neomacheilus barbatulus* (L.) (Teleostei, Cobitidae) (In German) 761
 C. B. Boschek and K. Hamdorf, Rhodopsin Particles in the Photoreceptor Membrane of an Insect 763
 K. Kirschfeld and P. Wenk, The Dorsal Compound Eye of Simuliid Flies: An Eye Specialized for the Detection of Small, Rapidly Moving Objects 764
 H. Beug, J. H. Peters, and T. Graf, Expression of Virus Specific Morphological Cell Transformation Induced in Enucleated Cells 766

Birthdays

- Professor Erwin Bünning 70 Jahre 1

Erratum

- To H. J. Rurainski (30 c, 761 [1975]) 110

- Subject Index 769

- Authors Index 785