SUBJECT INDEX

Acetolactate synthase

— of Pseudomonas aeruginosa. I. Purification and allosteric properties (Arfin, Koziell) (321) 348

Acetolactate synthase

— of Pseudomonas aeruginosa. II. Evidence for the presence of two nonidentical subunits (Arfin, Koziell) (321) 356

Acetylcholinesterase

Effect of ligands on a discontinuous temperature dependence of the decarbamylation reaction of erythrocyte —— (Roufogalis et al.) (321) 536

N-Acetyl- β -hexosaminidases

Human urinary —— (Grebner, Tucker) (321) 228

Acid phosphatase

Bovine milk ——. I. Some kinetic studies and other properties using a partially purified preparation (Andrews, Pallavicini) (321) 107

Adenylate cyclase

Epinephrine- and prostaglandin-sensitive —— in mammary gland (Bär) (321) 397

Adenylate kinase

— from Thiobacillus neapolitanus: Unique properties, possibly designed to serve a unique metabolic function (Mazzotta, Johnson) (321) 512

Affinity chromatography

— by enzyme-substrate interaction. Purification of some rat liver glycosidases (Junowicz, Paris) (321) 234

D-Amino-acid oxidase

Complex formation of —— with barbiturates and uracil derivatives (Kyogoku et al.) (321) 437

D-Amino acid oxidase

Mechanism of enzyme action. VI. Kinetic isotope effect in —— reaction (Yagi et al.) (321) 64

Aminopeptidase

—— from hog intestinal brush border (Maroux et al.) (321) 282

Aminopeptidase

Pig kidney particulate —, a zinc metalloenzyme (Lehky et al.) (321) 274

a-Amylase

Study of correlation between structural motility and reactivity of SH groups in ——
(Telegdi, Straub) (321) 210

a-Amylase

Subcellular and submicrosomal distribution or rat liver — activity (Hammerton, Messer) (321) 597

Asparaginase

Enzymatic properties of microcapsules con-

taining — (Mori et al.) (321) 653

L-Asparaginase synthesis

Induction of —— in Escherichia coli (Svobodová, Štrbáňová-Nečinová) (321) 643 Aspartase

Studies on —. I. Purification and molecular properties of aspartase from Escherichia coli (Suzuki et al.) (321) 369

ATP:L-methionine S-adenosyltransferase Inhibition of —— of baker's yeast by structural analogues of ATP (Chou, Talalay) (321) 467

ATPase

Cation sites of the (Na⁺ + K⁺)-dependent ——: Mechanisms for Na⁺-induced changes in K⁺ affinity of the phosphatase activity (Robinson) (321) 662

Barbiturates

Complex formation of D-amino-acid oxidase with —— and uracil derivatives (Kyogoku et al.) (321) 437

Catalase

Tryptic digestion and alkaline denaturation of ——. The influence on catalatic activity, peroxidate activity towards phenolic compounds and the reactivity with methyl- and ethylhydroperoxide (Marklund) (321) 90

Cholinesterase

— activities of intact platelets as measured by an improved radiometric method (Chuang) (321) 546

a-Chymotrypsin

Irreversible inhibition of ——, trypsin, pancreatic kallikrein, thrombin and elastase by $N(\beta$ -pyridylmethyl)-3,4-dichlorophenoxacetamide-p-fluorosulphonyl acetanilide bromide (Geratz, Fox) (321) 296

Cyclic AMP

Phosphorylation of muscle proteins by dependent protein kinase from muscle (Sands, Meyer) (321) 489

Cyclic AMP

Stimulation of purified muscle protein kinase by —— and its butyrated derivatives (Rebhun, Villar-Palasi) (321) 165

Dihydrolipoamide transacetylase

New — in Escherichia coli K12 (Bisswanger, Henning) (321) 143

Elastase

Irreversible inhibition of α -chymotrypsin, trypsin, pancreatic kallikrein, thrombin and — by N(β -pyridylmethyl)-3,4-dichlorophenoxyacetamide-p-fluorosulphonyl acetanilide bromide (Geratz, Fox) (321) 296

Enterokinase

Effect of ionic strength and calcium ions in the activation of trypsinogen by ——. A

690 SUBJECT INDEX

modified test for the quantitative evaluation of — and hypoxia (Susheela, Ramasarma) of this enzyme (Baratti et al.) (321) 632 (321)423Enteropeptidase activity Hypoxia Effects of Ca²⁺ on porcine —— (Barns et al.) Modulation of succinate dehydrogenase in (321) 624 response to environmental stress conditions Enzyme inhibition of hypobaria and --- (Sucheela, Rama-An unusual type of --- Sluyterman, sarma) (321) 423 Indole-3-acetaldehyde Wijdenes) (321) 697 Peroxidase-catalyzed oxidation of --- to 4-Enzyme-substrate interaction Affinity chromatography by ——. Purificahydroxyquinoline in the presence of bisulfite tion of some rat liver glycosidases (Junoion: Elimination of pyrrole ring C₂ as formic acid (Horng, Yang) (321) 456 wicz, Paris) (321) 234 Epinephrine Inorganic pyrophosphate-phosphohydrolytic -- and prostaglandin-sensitive adenylate activity cyclase in mammary gland (Bär) (321) 397 in human serum. Catalytic properties Ethanolamine-ammonia lyase of the ionic species of PPi and MgPPi Studies on the mechanism of - using 2complexes (Hørder) (321) 329 ethoxyethylamine as a substrate (Law, Invertase Wood) (321) 382 Survey of the multiple forms of —— in the 2-Ethoxyethylamine leaves of winter wheat, Triticum aestivum L. emend thell. ssp. vulgare (Roberts) (321) Studies on the mechanism of ethanolamineammonia lyase using —— as a substrate (Law, Wood) (321) 382 Isoperoxidases β -Glucanases - and hydroxyproline in the cell walls of Extracellular — of the yeast, Saccharolentil roots (Darimont et al.) (321) 461 myces cerevisiae (Farkas et al.) (321) 246 Irreversible inhibition of α -chymotrypsin, Glutathione reductase trypsin, pancreatic -, thrombin and Red cell - Mechanism of action of inhibitors (Yawata, Tanaka) (321) 72 elastase by N(β-pyridylmethyl)-3,4-dichloro-Glycosidases phenoxyacetamide-p-fluorosulphonyl acet-Affinity chromatography by enzyme-subanilide bromide (Geratz, Fox) (321) 296 Kupffer cells strate interaction. Purification of some rat – (Junowicz, Paris) (321) 234 Distribution of lysosomal enyzmes between liver parenchymal cells and - of rat liver Glycosidases Assessment of lysosomal —— in normal skin (Berg, Boman) (321) 585 Lactate dehydrogenase (Steigerwald, Bartholomew) (321) 256 Modification of pig heart ——: A derivative Histidase possessing enhanced thermal stability Lipotrope-dependent increase of — and urocanase in the livers of choline-deficient (Foster, Thomson) (321) 409 rats and in the Reuber H-35 transplanted Lysosomal enzymes Distribution of — between parenchymal hepatoma (Petri et al.) (321) 681 and Kupffer cells of rat liver (Berg, Boman) L-α-Hydroxy acid oxidase Molecular forms of - from rat kidney (321) 585(Domenech et al.) (321) 54 Malate dehydrogenase Absence of zinc in the mitochondrial and β -Hydroxybutyrate dehydrogenase Model discrimination and nonlinear paramsupernatant forms of ---- (Mathewson et eter estimation in the analysis of the al.) (321) 413 mechanism of action of - from Rhodo- β -D-Mannosidase pseudomonas spheroides (Hurst et al.) (321) 1 Lysosomal -- of rat liver (La Badie, Aronson, Jr) (321) 603 Hydroxyproline Isoperoxidases and ---- in the cell walls of Micrococcus halodenitrificans Bacterial nitrate reductases. Solubilization, lentil roots (Darimont et al.) (321) 461 purification and properties of the enzyme A 4-Hydroxyquinoline Peroxidase-catalyzed oxidation of indole-3of — (Rosso et al.) (321) 443 acetaldehyde to --- in the presence of Nitrate reductases bisulfite ion: Elimination of pyrrole ring C2 Bacterial — Solubilization, purification as formic acid (Horng, Yang) (321) 456 and properties of the enzyme A of Micro- $3-\beta$ -Hydroxysteroid dehydrogenase coccus halodenitrificans (Rosso et al.) (321) Localization of —— in the inner membrane 443 subfraction of rat testis mitochondria (Suli-Nitrate reductase Effect of cations on the heat stability of a movici et al.) (321) 27 - (Marquez, Brodie) (321) 84 Hypobaria halophatic -

Nitrogenase

from

Clostridium pasteurianum.

Modulation of succinate dehydrogenase in

response to environmental stress conditions

SUBJECT INDEX 691

Changes in optical absorption spectra during kinase from muscle (Sands, Meyer) (321) 489 electron transfer and effects of ATP, inhi-Phosphotransacetylase from Bacillus subtilis: Purification bitors and alternative substrates (Ljones) and physiological studies (Rado, Hoch) (321) 103 p-Nitrophenylphosphatase (321) 114 Further characterization of a specific ----Phosphotransacetylase from baker's yeast (Attias, Durand) (321) 561 Kinetic studies with ----. V. The mechap-Nitrophenylphosphatase nism of activation by univalent cations Surface of frog gastric mucosa (Durbin (Kyrtopoulos, Satchell) (321) 126 Kircher) (321) 553 Plasmin Paraoxon hydrolysis Effect of bile salts on the esterase activities Nature of the serum catalyzing —— (Lenz of — and some other enzymes (Exner, et al.) (321) 189 Koppel) (321) 303 Parenchymal cells Platelets. Distribution of lysosomal enzymes between Cholinesterase activities of intact — - and Kupffer cells of rat liver (Berg, measured by an improved radiometric Boman) (321) 585 method (Chuang) (321) 546 Peptide hydrolases Polyphosphate phosphohydrolase Alterations in the levels of —— and other -from Endomyces magnusii (Afanasieva, enzymes in brush-border and soluble frac-Kulaev) (321) 336 tions of rat small intestinal mucosa during Prostaglandin-sensitive starvation and refeeding (Kim et al.) (321) 262 Epinephrine- and —— adenylate cyclase in Peroxidase mammary gland (Bär) (321) 397 -catalyzed oxidation of indole-3-acet-Protein kinase aldehyde to 4-hydroxyquinoline in the pre-Phosphorylation of muscle proteins by cycence of bisulfite ion: Elimination of pyrrole clic AMP-dependent —— from muscle ring C₂ as formic acid (Horng, Yang) (321) 456 (Sands, Meyer) (321) 489 Phosphatase Protein kinase Bovine milk acid — —. I. some kinetic Stimulation of purified muscle —— by cyclic AMP and its butyrated derivatives studies and other properties using a partially purified preparation (Andrews, Pallavicini) (Rebhun, Villar-Palasi) (321) 165 (321) 197 $N(\beta-Pyridylmethyl)-3,4-dichlorophenoxy-$ Phosphatase activity acetamide-p-fluorosulphonyl acetanilide Cation sites of the (Na+ + K+)-dependent bromide ATPase: Mechanisms for Na+-induced Irreversible inhibition of α -chymotrypsin, changes in K⁺ affinity of the —— (Robinson trypsin, pancreatic kallikrein, thrombin and (321) 662elastase by -— (Geratz, Fox) (321) 296 Phosphoenolpyruvate: fructose phospho-Pyruvate kinase transferase Kinetic properties of the allosteric M-type activity in whole cells and membrane from rat liver: Influence of pH and vesicles of Arthrobacter pyridinolis (Wolfson the nature of amino acid inhibition (Van et al.) (321) 181 Berkel et al.) (321) 171 Phosphofructokinase Pyruvate kinase Rabbit reticulocyte ----. Purification and Molecular basis of ---- deficiency. I. Prisome properties (Kwiatkowska) (321) 475 mary defect or consequence of increased Phosphoglycerate kinase glutathione disulfide (Van Berkel et al.) -: Purification prop-Human erythrocyte — (321)496erties and interaction with its antibody Ribulose-5-phosphate kinase (Okonkwo et al.) (321) 503 Regulation of pea leaf —— activity Phospholipase A (Anderson) (321) 484 Purification and some properties of rat L-Serine dehydratase spleen — – (Rahman et al.) (321) 526 - from rat liver: Purification and some Phospholipase C properties. (Simon et al.) (321) 361 Purification of --- (alpha-toxin) from Serine:glyoxylate aminotransferase Clostridium perfringens (Möllby, Wad-Purification and characterization of 'ström) (321) 569 from kidney bean (Phaseolus vulgaris) (Smith) (321) 156

Sodium + potassium-dependent ATPase

Streptomyces erythreus

Cation sites of the ---: Mechanisms for Na+-induced changes in K+ affinity of the

phosphatase activity (Robinson) (321) 662

Specific inactivation by new chloromethyl

Active site of trypsin-like enzyme from —

Phosphopyruvate carboxylase

of rat lung (Evans, Scholz) (321) 671 Phosphorylase b

Influence of various ligands on the desensitization of — by dinitrophenylation (Soman, Philip) (321) 149

Phosphorylation of muscle proteins

- by cyclic AMP-dependent protein

ketones derived from N^{α} -dinitrophenyl-L-lysine and N^{α} -tosyl-L-arginine (Yoshida et al.) (321) 615

Subtilisin

Deuterium isotope effects on acylation of —— (Polgár) (321) 639

Succinate dehydrogenase

Interactions of —— with cyanide (Zenatti et al.) (321) 41

Succinate dehydrogenase

Modulation of —— in response to environmental stress conditions of hypobaria and hypoxia (Sucheela, Ramasarma) (321) 423 Superoxide dismutase

Intracellular localization of —— and its relation to the distribution and mechanism of hydrogen peroxide-producing enzymes (Rotilio et al.) (321) 98

Thrombin

Irreversible inhibition of a-chymotrypsin, trypsin, pacnreatic kallikrein, —— and elastase by N(β -pyridylmethyl)3,4-dichlorophenoxyacetamide-p-fluorosulphonyl acetanilide bromide (Geratz, Gox) (321) 296 alpha-Toxin

Purification of phospholipase C (——) from Clostridium perftingens (Möllby, Wadström) (321) 560

Trypsin

Irreversible inhibition of α -chymotrypsin, ——, pancreatic kallikrein, thrombin and elastase by N(β -pyridylmethyl)-3,4-dichlor-ophenoxyacetamide-p-fluorosulphonyl acetanilide bromide (Geratz, Fox) (321) 296

Trypsin-like enzyme

Active site of —— from Streptomyces erythreus: Specific inactivation by new chloromethyl ketones derived from N^a-dinitrophenyl-L-lysine and N^a-tosyl-L-arginine (Yoshida et al.) (321) 615

Trypsinogen

Effect of ionic strength and calcium ions in the activation of —— by enterokinase. A modified test for the quantitative evaluation of this enzyme (Baratti et al.) (321) 632

Uracil derivatives

Complex formation of D-amino acid oxidase with barbiturates and —— (Kyogoku et al.) (321) 437

Urease

Kinetic properties of microencapsulated —— (Sundaram) (321) 319

Urocinase

Lipotrope-dependent increase of histidase and —— in the livers of choline-deficient rats and in the Reuber H-35 transplanted hepatoma (Petri et al.) (321) 681