β-N-Acetylglucosaminidase, from bovine uterus; purification and properties of, (Coleman et al.)	200	(Flashner, Lukton)	596
Adenine nucleotides, binding of, to man- nitol-1-phosphate dehydrogenase of E. coli (Klungsöyr)	10	ferase of spinach (Doi)	603
Adenosine diphosphate-D-glucose: $\alpha$ -1,4-glucan $\alpha$ -4-glucosyl-transferase, of spi-		NAD and NADP in, (Hood, CARR) Arginine racemase, occurrence of, in bac-	_
nach; enlargement of amylopectin by, (Doi)	603	terial extracts (Soda et al.) Aspartate aminotransferase, interaction	000
Adenosine monophosphate nucleosidase, regulation of, in <i>Azotobacter vinelandii</i> (Yoshino <i>et al.</i> )	620	of $\alpha$ -methyl aspartate with; thermodynamic parameters of, (HAMMES, TANCREDI)	312
Adenosine phosphate, 3',5'-cyclic —— as positive effector of pyruvate kinase in		D-Aspartate oxidase, of kidney (Dixon, Kenworthy)	54
developing embryos (Milman, Yuro- witzki)	301	Aspartokinase, control of, during development of <i>Bacillus licheniformis</i> (STAHLY,	6
Addrenal gland, ————————————————————————————————————		Bernlohr)	467
benzoate and diethylstilbestrol disul- fate on hepatic levels of glucocorticoid- sensitive enzymes in, (SINGER, MASON)	442	of, (BAK, SATO) 317, Astasia longa, ATP-independent nicotinic acid mononucleotide pyrophosphory-	328
Adrenal gland, —— steroid 21-hydroxylating system exhibiting action in ab-	743	lase of, (Kahn, Blum)	305
sence of cytochrome P-450; preparation of, (MATTHIJSSEN, MANDEL)	613	nucleosidase in, (Yoshino et al.) Bacillus licheniformis, control of asparto-	620
Adrenal glands, bovine ——; estrogen sul- photransferase of, (ADAMS et al.) 493, 509,	522	kinase during development of, (Stahly, Bernlohr)	467
Aerobacter aerogenes, depression of phos-	-	Bacteria, extracts of; occurrence of argi-	
phomonoesterase and phosphodiesterase activities in, (Wolfender,		nine racemase in, (Soda et al.) Barley malt, —— α-glucosidase; inhibi-	606
Spence)	296	tion of, by tris(hydroxymethyl)amino- methane and erythritol (Jørgensen,	
acid oxidase with; characterization of		Jørgensen)	167
purple intermediate in, (Yagi et al.) . Alanine racemase, inhibition of, by amino-	77	Carboxilic acids, effects of, on hepatic ty- rosine transaminase in rat in vitro and	
xyacetic acid (FREE et al.)	000	in vivo (SINGER, MASON) Catechol 1,2-oxygenase, mechanism of	452
of, with D-alanine; characterization of purple intermediate in, (YAGI et al.)	77	inactivation of, by ESR (WATARI et al.) Cattle, — adrenal glands, see Adrenal	409
Aminoacyl ligases, chemical modification of; effect of, on formation of amino-		glands Cattle, —— tissues, see Tissues	
acyl-tRNA (Haines, Zamecnik)	227	Cattle, —— uterus, Uterus	
Aminoacyl-transfer ribonucleic acid, for- mation of; effect of chemical modifica-		Chicken, —— liver, see Liver Chicken, —— pancreas, see Pancreas Chymotrypsinogen, non-parallel increase	
tion of aminoacyl ligases on, (HAINES, ZAMECNIK)	227	of amylase and, and procarboxypepti-	
Aminoacyl-transfer ribonucleic acid syn- thetases, from Sarcina lutea (HAHN,		dase in developing chick pancreas (Marchaim, Kulka)	553
Brown)	259	Cord factor, ——-treated mice; NAD- and NADP-specific dehydrogenases in,	
Aminoxyacetic acid, inhibition of alanine racemase by, (Free et al.)	608	(Murthy et al.)	584
Amylase, non-parallel increase of, and chymotrypsinogen and procarboxy-		Cycloamyloses, interaction of potato	
peptidase in developing chick pan-		phosphorylase with, (Staerk, Schlenk)	120
creas (Marchaim, Kulka) $\alpha$ -Amylase, effect of $^2\mathrm{H}_2\mathrm{O}$ on activity of,	553	Cytochrome $b_2$ (L-lactate dehydrogenase), reaction rate of combination of sub-	

strate to enzyme in, (IWATSUBO, CA-		throcytes and haemolysates (HEGESH,	
PEILLERE)	349	Avron)	91
Cytochrome P-450, preparation of adrenal		Ferrihaemoglobin reductase, from human	_
steroid 21-hydroxylating system ex-		erythrocytes; purification of, (Hegesh,	
hibiting activity in absence of, (MAT-		A \ \	397
THIJSSEN, MANDEL)	613	Fructose 1,6-diphosphate, as positive effec-	371
Dehydrogenase, — proteins; starch-gel	3	tor of pyruvate kinase in developing	
investigations of relationships between,		embryos (Milman, Yurowitzki)	201
(RESSLER, STITZER)	I	Glucocorticoid, —— -sensitive enzymes in	J .
3-Deoxy-D-arabino-heptulosonate 7-phos-	-	adrenalectomized rats; effects of ad-	
phate synthase, thermodynamic pro-		ministration of sodium benzoate and	
perties of allosteric transition of,		diethylstilbestrol disulfate on hepatic	
(Staub, Dénes)	622	levels of, (Singer, Mason)	440
Diethylstilbestrol disulfate, effects of ad-	023		445
ministration of, on hepatic levels of glu-		Gluconeogenic enzymes, hepatic — of	
cocorticoid-sensitive enzymes in adre-		obese-hyperglycemic mouse (Seidman	6
relectorized rate (Cryoth Manne)		et al.)	000
nalectomized rats (SINGER, MASON)	443	α-Glucose, liberation of, by sucrase and	
Disulfide, — -interchange enzyme in		isomaltase from glycone moiety of	
microsomes of bovine tissues; relative		substrates (Semenza et al.)	196
levels of, (DE LORENZO, MOLEA)	593	Glucose dehydrogenase, of Aspergillus ory-	
Dopamine- $\beta$ -hydroxylase, — activity;		zae (Bak, Sato) 317,	, 328
effect of hyperbaric oxygen on, (Gold-		Glucose-6-phosphatase, — activity in	
STEIN, JOH)	615	pancreatic islets of mammals (Tälje-	
Drosophila melanogaster, electrophoretic		DAL)	292
variants of xanthine dehydrogenase in,		Glucose-6-phosphate dehydrogenase, regu-	
(YEN, GLASSMAN)	35	lation of activity of, by NADP+ and	
Embryos, developing —; fructose 1,6-di-		NADPH (Luzzatto)	18
phosphate and 3',5'-cyclic AMP as po-		Glucosephosphate isomerase, pea —;	
sitive effectors of pyruvate kinase in,		crystalllization and properties of, (Ta-	
(MILMAN, YUROWITZKI)	301	KEDA $et\ al.$ )	568
Enzymes, lipolytic —— of rat pancreatic		$\alpha$ -Glucosidase, barley malt ——; inhibi-	
juice (Morgan et al.)	314	tion of, by tris(hydroxymethyl)amino-	
Enzymes, X-ray inactivation of; identifi-	• .	methane and erythritol (Jørgensen,	
cation of water radicals involved in,		Jørgensen)	167
(Sanner, Pihl)	298	$\beta$ -Glucuronidase, from female-rat prepu-	•
Erythritol, inhibition of barley malt α-	-	tial gland; purification of, on Sephadex	
glucosidase by, (Jørgensen, Jørgen-		(SNAITH, LEVVY)	590
_ SEN)	167	L-Glutamate dehydrogenase, oxidative	377
Erythrocytes, human —; purification	- 1	deamination of L-homocysteinesulfinic	
of ferrihaemoglobin reductase from,		acid by liver —; inhibition of, by L-	
(Hegesh, Avron)	307	homocysteic acid (Jollès-Bergeret)	45
Erythrocytes, reduction of ferrihaemoglo-	397	Glyceraldehyde-3-phosphate dehydroge-	45
bin in, (Hegesh, Avron)	91	nase, single — active with NAD and	
Escherichia coli, mannitol-1-phosphate de-	91	NADP in Anabaena variabilis (Hood,	
hydrogenase of; binding of adenine nu-		CARR)	200
cleotides to, (Klungsöyr)	7.0	Chronistic engrence handia of chase	309
Escherichia coli, methionyl-tRNA synthe-	10	Glycolytic enzymes, hepatic —— of obese-	600
tase from; effects of divalent and mo-		hyperglycemic mouse (SEIDMAN et al.)	000
novalent cations on (Symposius)		Glycone moiety, liberation of $\alpha$ -glucose by	
novalent cations on, (SVENSSON)	253	sucrase and isomaltase from, of sub-	
Esterases, rat —; developmental multi-			196
plicity and isoenzyme status of, (Hol-	0	Haemolysates, reduction of ferrihaemo-	
MES, MASTERS)	138	globin in, (Hagesh, Avron)	91
Estradiol dehydrogenase, $17\alpha$ - and $17\beta$ -		Histidyl residue, as active site in glucose	
activities from chicken liver; par-		dehydrogenase of Aspergillus oryzae	
tial purification of, (RENWICK, ENGEL)	336	(Bak, Sato)	328
Estrogens, binding of, to estrogen sulpho-		L-Homocysteic acid, inhibition by, of oxi-	
transferase (ADAMS)	522	dative deamination of L-homocysteine-	
Estrogen sulfotransferase, binding of		sulfinic acid by liver L-glutamate dehy-	
estrogens to, (ADAMS)	522	drogenase (Jollès-Bergeret)	45
Estrogen sulphotransferase, of bovine		L-Homocysteinesulfinic acid, oxidative	
adrenal glands (ADAMS et al.) 493, 509,	522	deamination of, by liver L-glutamate	
Euglena gracilis, β-1,3-oligoglucan phos-		dehydrogenase; inhibition of, by L-	
phorylase from, (MARECHAL) 417.	431	homocysteic acid (Jollès-Bergeret)	4.5
Ferrihaemoglobin reduction of in erv-		Influenza virus see Virus	

Intestine, rabbit small —; isolation and		thetase, from Sarcina lutea; properties	
properties of sucrase-isomaltase from,		of, (Hahn, Brown)	264
(Kolínská, Semenza)		$\beta$ -Methylaspartase, new substrates for,	
Islets, see Pancreatic islets		(WINKLER, WILLIAMS)	287
Isoenzyme 5, of L-lactate dehydrogenase;		α-Methyl aspartate, interaction of, with	,
disappearance of, from plasma (Boyd)		aspartate aminotransferase; thermody-	
Isomaltase, liberation of $\alpha$ -glucose by,		namic parameters of, (HAMMES, TAN-	
from glycone moiety of substrates (SE-		CREDI)	312
MENZA et al.)	197	α-Methylglucosidase, from yeast; purifica-	J
Kidney, D-aspartate oxidase of, (DIXON,	-,	tion and characterization of, (KHAN,	
KENWORTHY)	54	EATON)	173
L-Lactate dehydrogenase, disappearance		Microsomes, of bovine tissues; relative	75
of isoenzyme 5 of, from plasma (BOYD)	590	levels of disulfide-interchange enzyme	
L-Lactate dehydrogenase, reaction rate of		in, (DE LORENZO, MOLEA)	593
combination of substrate to enzyme in		Microsomes, rat liver ——; solubilization	373
cytochrome $b_2$ () (IWATSUBO, CA-		and purification of steroid sulfatase	
PEILLERE)	349	from, (Burnstein)	529
Laminaribiose phosphorylase, compara-	517	Mouse, —— liver, see Liver	, ,
tive study between, and $\beta$ -1,3-oligo-		Neuraminidases, of influenza virus; stimu-	
glucan phosphorylase in Euglena graci-		lation of, by bivalent cations (WILSON,	
lis (Marechal)	431	RAFELSON)	160
Leaf, — development; regulatory pro-	10	Neurospora crassa, properties of phospha-	
perties of plant phosphofructokinase		tidylmonomethylethanolamine $N$ -	
during, (Dennis, Coultate)	129	methyltransferase from, (Scarbo-	
Lipolytic enzymes, see Enzymes		rough, Nyc)	III
Liver, chicken ——; 5'-nucleotidase of,		Nicotinamide-adenine dinucleotide, single	
(Itoh $et \ al.$ )	151	glyceraldehyde-3-phosphate dehydro-	
Liver, chicken; partial purification		genase active with NADP and, in	
of $17\alpha$ - and $17\beta$ -estradiol dehydroge-		Anabaena variabilis (Hood, CARR)	309
nase activities from, (RENWICK, En-		Nicotinamide-adenine dinucleotide dehy-	
GEL)	336	drogenase, in cord-factor-treated mice	
Liver, chicken ——; D-3-phosphoglyce-		(Murthy et al.)	584
rate dehydrogenase from, (Walsh,		Nicotinamide-adenine dinucleotide phos-	
SALLACH)	26	phate, oxidized and reduced ——; re-	
Liver, — glycolytic and gluconeogenic		gulation of activity of glucose-6-phos-	
enzymes of obese-hyperglycemic mouse		phate dehydrogenase by, (Luzzatto).	18
(SEIDMAN et al.)	600	Nicotinamide-adenine dinucleotide phos-	
Liver, rat —; in vitro and in vivo effects		phate, single glyceraldehyde-3-phos-	
of conjugated steroids and carboxylic		phate dehydrogenase active with NAD	
acids on tyrosine transaminase in, (SIN-		and, in Anabaena variabilis (Hood,	
GER, MASON)	452	Carr)	309
Liver, rat — microsomal steroid sulfa-		Nicotinamide-adenine dinucleotide phos-	
tase; solubilization and purification of,		phate dehydrogenase, in cord-factor-	
(Burnstein)	529	treated mice (Murthy et al.)	584
Liver, rat —— ribonucleases; studies on,		Nicotinic acid mononucleotide pyrophos-	
(RAHMAN et al.) 477,	484	phorylase, ATP-independent —— of	
Lysine ethyl ester, transesterification of,		Astasia longa (KAHN, BLUM)	305
during tryptic hydrolysis in presence		Nucleoside, —— 5'-O-phosphorothioates,	
of alcohols; kinetic evidence for, (SEY-		as inhibitors for phosphatases (Eck-	c - 0
DOUX)	544	STEIN, STERNBACH)	018
Lysosomes, rat liver —; heterogeneity	. 0 .	5'-Nucleotidases, of chicken liver (ITOH	
of, in enzyme content (RAHMAN et al.)	484	et al.)	151
L-Malate dehydrogenase, of sea urchin	- 9 -	β-1,3-Oligoglucan phosphorylase, compa-	
(OZAKI, WHITELEY)	507	rative studies between, and laminari-	
racterization of, (Khan, Eaton)	172	biose phosphorylase in Euglena gracilis	121
Mannitol-1-phosphate dehydrogenase, of	-/3	(Marechal) $\beta$ -1,3-Oligoglucan phosphorylase, from	431
E. coli; binding of adenine nucleotides		Euglena gracilis; isolation and pro-	
to, (Klungsøyr)	10	perties of, (Marechal)	417
Methionyl-transfer ribonucleic acid syn-		Oxygen, hyperbaric, ——; effect of, on do-	T-/
thetase, from Saccharomyces cerevisiae		pamine- $\beta$ -hydroxylase activity (Gold-	
and E. coli; effects of divalent and mo-		STEIN, JOH)	615
novalent cations on, (Svensson) 239,	253	Palmityl-coenzyme A synthetase, stimu-	3
Methionyl-transfer ribonucleic acid syn-	55	lation of, by factor from particle free	

supernatants (FARSTAD) Pancreas, chick ——; non-parallel increase of amylase and chymotrypsi-	272	investigations of relationships between, (Ressler, Stitzer)	I
nogen and procarboxypeptidase during development of, (MARCHAIM, KULKA)	535	meso-tartrate dehydratase activity from, (YASPHE et al.)	560
Pancreatic islets, of mammals; apparent glucose-6-phosphatase activity in, (Täljedal)		Pyruvate kinase, in developing embryos; fructose 1,6-diphosphate and 3',5'- cyclic AMP as positive effectors of,	
Pancreatic juice, rat ——; lipolytic enzymes of, (Morgan et al.)		(MILMAN, YUROWITZKI) Rabbit, —— small intestine, see Intestine	301
Pea, —— glucosephosphate isomerase, see	<i>3</i> 1	Rat, — esterases ,see Esterases Rat, — liver, see Liver	
Glucosephosphate isomerase Penicillinase, interaction of, with penicil-		Rat, — pancreatic juice, see Pancreatic	
lin; conformative response constants		juice	
in, (Zyk, Citri)	219	Rat, — preputial gland, see Preputial gland	
with; conformative response constants		Ribonucleases, rat liver —; studies on,	
in, (Zyk, Citri)	219	(RAHMAN et al.) 477,	484
Phosphatase, Salmonella typhimurium		Saccharomyces cerevisiae, methionyl-tRNA	
—— activities; effect of P <sub>i</sub> on, (Car- RILLO-CASTAÑEDA, ORTEGA)	535	synthetase from; effects of divalent and monovalent cations on, (Svensson).	230
Phosphatases, nucleoside 5'-O-phospho-	333	Salmonella typhimurium, — phospha-	3,
rothioates as inhibitors for, (ECKSTEIN,	- 0	tase activities; effect of P <sub>I</sub> on, (CARRIL-	
STERNBACH)	618	LO-CASTAÑEDA, ORTEGA)	535
Salmonella typhimurium phosphatase		ses from, (Hahn, Brown)	259
activities (CARRILLO-CASTAÑEDA, OR-		Sarcina lutea, methionyl-tRNA synthe-	0 -
TEGA)	535	tase from; properties of, (HAHN,	-6.
Phosphatidylmonomethylethanolamine N-methyltransferase, from Neurospora		Brown)	204
crassa; properties of, (Scarborough,		(Ozaki, Whiteley)	587
Nyc)	111	Serum, elastolytic activity of, (BANGA,	
Phosphodiesterase, — activity in Aero-		ARDELT)	284
bacter aerogenes; depression of, (Wolfenden, Spence)	206	Sodium benzoate, effects of administration of, on hepatic levels of glucocorticoid-	
Phosphofructokinase, plant —; regula-	-,-	sensitive enzymes in adrenalectomized	
tory properties of, during leaf develop-		rats (SINGER, MASON)	443
ment (DENNIS, COULTATE)	129	ADP p glucose and a glucon grandly	
D-3-Phosphoglycerate dehydrogenase, from chicken liver (WALSH, SALLACH).	26	ADP-D-glucose: $\alpha$ -1,4-glucan $\alpha$ -4-glucosyltransferase of, (Doi)	603
Phospholipids, role of, in succinate dehy-		Steroid, adrenal — 21-hydroxylating	
drogenase (Cerletti et al.)	380	system exhibiting activity in absence	
Phosphomonoesterase, — activity in Aerobacter aerogenes; depression of,		of cytochrome P-450; preparation of, (Matthijssen, Mandel)	612
(Wolfenden, Spence)	296	Steroids, in vitro and in vivo effects of, on	013
5'-O-Phosphorothioates, nucleoside —		hepatic tyrosine transaminase in rat	
as inhibitors for phosphatases (Eck-	6.18	(SINGER, MASON)	
STEIN, STERNBACH)	010	Steroid sulfatase, rat liver microsomal —; solubilization and purification of,	
of, with cycloamyloses (Staerk,		(Burnstein)	529
Schlenk)	120	Succinate dehydrogenase, ESR measure-	
Plasma, disappearance of isoenzyme 5 of L-lactate dehydrogenase from, (Boyd)	500	ments of, at liquid-nitrogen temperature (VAN VOORST et al.)	367
Potato phosphorylase, see Phosphorylase	390	Succinate dehydrogenase, role of phospho-	307
Preputial gland, female-rat —; purifica-		lipids in, (Cerletti et al.)	
tion of $\beta$ -glucuronidase from, on Sephador (Syattry, L. 1994)	500	Sucrase, liberation of $\alpha$ -glucose by, from	
dex (Snaith, Levvy)	599	glycone moiety of substrates (SEMENZA et al.)	
crease of amylase and chymotrypsino-		Sucrase-isomaltase, from rabbit small in-	
gen and, in developing chick pancreas		testine; isolation and properties of,	
(Marchaim, Kulka)	553	(Kolínská, Semenza)	
tial thiol group of, (EDWARDS, KEECH)	576	activity from induced cells of pseudo-	
Proteins dehydrogenase - starch-gel		monads (VASHPHE et al.)	560

Thiol group, essential —— of propionyl- CoA carboxylase (EDWARDS, KEECH).	576	from, (Coleman <i>et al.</i> )	290
Fissues, bovine ——; relative levels of di- disulfide-interchange enzyme in mi- crosomes of, (DE LORENZO, MOLEA)		raminidases of, by bivalent cations (Wilson, Rafelson)	160
Tris(hydroxymethyl)aminomethane, inhibition of barley malt α-glucosidase by,	593	tivity of α-amylase (Flashner, Luk-	#06·
(Jørgensen, Jørgensen)	167	Water radicals, —— involved in X-ray in-	590
Γryptophan pyrrolase, measurements of, in vivo (ΥΑΜΑGUCHI et al.)		activation of enzymes; identification of, (Sanner, Pihl)	298
Tyrosine transaminase, hepatic — in rat; in vitro and in vivo effects of con-		Xanthine dehydrogenase, of Drosophila melanogaster; electrophoretic variants	
jugated steroids and carboxylic acids on, (Singer, Mason)	452	of, (YEN, GLASSMAN)	35
Urease, properties and purifications of, (Lynn)	205	(Hart, Bray) Yeast, maltase and $\alpha$ -methylglucosidase	611
Uterus, bovine ——; purification and properties of $\beta$ -N-acetylglucosaminidase		from; purification and characterization of, (Khan, Eaton)	173