

## Contents of Volume 130, No. 2, 1972

	PAGE		PAGE
Extent and control of antibody diversity. The ninth Colworth Medal Lecture. By A. R. Williamson	325	Conversion of <i>p</i> -coumarate into caffeate by <i>Streptomyces nigrifaciens</i> . Purification and properties of the hydroxylating enzyme. By A. M. D. Nambudiri, J. V. Bhat & P. V. S. Rao	425
Synthesis of ribonucleic acid in the venom gland of <i>Crotalus durissus terrificus</i> (Ophidia, Reptilia) after manual extraction of the venom. By F. L. De Lucca & M. T. Imaizumi	335	The origin and structures of dimeric fatty acids from the anaerobic reaction between soya-bean lipooxygenase, linoleic acid and its hydroperoxide. By G. J. Garssen, J. F. G. Vliegenthart & J. Boldingh	435
Partial purification and properties of rat liver mitochondrial polynucleotide phosphorylase. By Y. P. See & P. S. Fitt	343	The primary structure of aspartate aminotransferase from pig heart muscle. Partial sequences determined by digestion with pepsin and trypsin. By S. Doonan, H. J. Doonan, F. Riva, C. A. Vernon, J. M. Walker, F. Bossa, D. Barra, M. Carloni & P. Fasella	443
A study of the localization of polynucleotide phosphorylase within rat liver cells and of its distribution among rat tissues and diverse animal species. By Y. P. See & P. S. Fitt	355	The dimensions and shapes of the furanose rings in nucleic acids. By S. Arnott & D. W. L. Hukins	453
The formation of cholest-5-ene-3 $\beta$ ,26-diol as an intermediate in the conversion of cholesterol into bile acids by liver mitochondria. By K. A. Mitropoulos, M. D. Avery, N. B. Myant & G. F. Gibbons	363	The identification of a lipid-mobilizing factor from sheep midbrain. By P. P. Shah, A. R. Tee, P. D. English, B. T. Redman & J. Bunyan	467
The bacterial degradation of flavonoids. Hydroxylation of the A-ring of taxifolin by a soil pseudomonad. By A. M. Jeffrey, M. Knight & W. C. Evans	373	Role of light in the synthesis of nitrate reductase and nitrite reductase in rice seedlings. By S. K. Sawhney & M. S. Naik	475
The bacterial degradation of flavonoids. Oxidative fission of the A-ring of dihydrogossypetin by a <i>Pseudomonas</i> sp. By A. M. Jeffrey, D. M. Jerina, R. Self & W. C. Evans	383	Enzymic sulphation of <i>p</i> -nitrophenol and steroids by larval gut tissues of the southern armyworm ( <i>Prodenia eridania</i> Cramer). By R. S. H. Yang & C. F. Wilkinson	487
The activities of pyruvate carboxylase, phosphoenolpyruvate carboxylase and fructose diphosphatase in muscles from vertebrates and invertebrates. By B. Crabtree, S. J. Higgins & E. A. Newsholme	391	Aromatic acids derived from phenylalanine in the tissues of rats with experimentally induced phenylketonuria-like characteristics. By D. J. Edwards & K. Blau	495
Mechanism of the 2,3-diphosphoglycerate-dependent phosphoglycerate mutase from rabbit muscle. By H. G. Britton & J. B. Clarke	397	Sporulation in <i>Bacillus subtilis</i> . Properties and time of synthesis of alkali-soluble protein of the spore coat. By D. A. Wood	505
Formation of compound I by the reaction of catalase with peroxyacetic acid. By P. Jones & D. N. Middlemiss	411	Effect of temperature and pH on carbamoylation and phosphorylation of serum cholinesterases. Theoretical interpretation of activation energies in complex reactions. By V. Simeon, E. Reiner & C. A. Vernon	515
Structural investigation of the carbohydrate element of human pituitary follicle-stimulating hormone by methylation analysis. By J. F. Kennedy & M. F. Chaplin	417	Preparation and some properties of a suspension of fragmented tubules from rat kidney. By A. G. Dawson	525

	PAGE		PAGE
The effect of cortisol on the synthesis of rat plasma albumin, fibrinogen and transferrin. By K. N. Jeejeebhoy, A. Bruce-Robertson, J. Ho & U. Sodtke	533	The excretion and degradation of chondroitin 4-sulphate administered to guinea pigs as free chondroitin sulphate and as proteoglycan. By P. A. Revell & H. Muir	597
Amino acid sequence of the <i>N</i> -terminal sixty-nine residues of heavy chain derived from a homogeneous rabbit antibody. By J.-C. Jaton & D. G. Braun	539	Quantitative aspects of fatty acid biohydrogenation, absorption and transfer into milk fat in the lactating goat, with special reference to the <i>cis</i> - and <i>trans</i> -isomers of octadecenoate and linoleate. By R. Bickerstaffe, D. E. Noakes & E. F. Annison	607
The isolation, properties and amino acid sequence of erabutoxin c, a minor neurotoxic component of the venom of a sea snake <i>Laticauda semifasciata</i> . By N. Tamiya & H. Abe	547	The effect of aflatoxin B <sub>1</sub> on normal and cortisol-stimulated rat liver ribonucleic acid synthesis. By G. E. Neal	619
The uptake and metabolism of plasma lysophosphatidylcholine <i>in vivo</i> by the brain of squirrel monkeys. By D. R. Illingworth & O. W. Portman	557	Interaction of prostaglandins with blood plasma proteins. Comparative binding of prostaglandins A <sub>2</sub> , F <sub>2α</sub> and E <sub>2</sub> to human plasma proteins. By A. Raz	631
Active-site-directed irreversible inhibition of rat brain 4-aminobutyrate aminotransferase by ethanolamine <i>O</i> -sulphate <i>in vitro</i> and <i>in vivo</i> . By L. J. Fowler & R. A. John	569	<b>Short Communications</b>	
The metabolism of fluoroacetate in lettuce. By P. F. V. Ward & N. S. Huskisson	575	Analysis of progress curves in enzyme kinetics. By A. J. Cornish-Bowden	637
Evaluation of 1-fluoro-2-nitro-4-trimethylammoniumbenzene iodide, a protein-solubilizing reagent. By D. A. Sutton, S. E. Drewes & U. Welz	589	Nitrogenase of <i>Klebsiella pneumoniae</i> : electron-paramagnetic-resonance studies on the catalytic mechanism. By B. E. Smith, D. J. Lowe & R. C. Bray	641

### Proceedings of the Biochemical Society

	PAGE		PAGE
Induction of bacterial enzymes. By P. H. Clarke	47P	The effects of drugs on the activities of 5-aminolaevulinic synthetase and other enzymes in the pathway of haem biosynthesis. By F. De Matteis	52P
Analysis of microsomal hydroxylase induction in cell culture. By H. V. Gelboin, F. J. Wiebel & H. G. Coon	48P	Mechanisms and consequences of the induction of microsomal enzymes of mammalian liver. By D. V. Parke	53P
Regulation of enzyme amounts in developing liver. By O. Greengard	48P	Trends in chromatographic equipment. By E. Reid	55P
Mechanism of action of cortisol in rat liver. By M. Sluysers	49P	Gas-liquid chromatography in biochemical analysis: a review of recent trends in equipment. By G. Guiochon	56P
Enzyme activity changes relevant to the control of tryptophan metabolism. By G. Curzon	50P	Equipment for high-pressure liquid chromatography. By J. H. Knox	56P

	PAGE		PAGE
Aids to column chromatography. <i>By A. J. Thomas</i>	57P	Lysine biosynthesis in mammals. <i>By F. C. I. Wang &amp; M. H. R. Lewis</i>	74P
Thin-layer-chromatographic equipment. <i>By J. P. Leppard</i>	58P	Regulation of L-serine dehydratase in developing rat liver. <i>By K. Snell &amp; D. G. Walker</i>	75P
Clinical symptoms of mercury poisoning in man. <i>By P. L. Bidstrup.</i>	59P	Enzyme adaptation for glycerol utilization in neonatal rats. <i>By C. J. Ward &amp; D. G. Walker</i>	76P
Pathological effects of mercury. <i>By W. H. Butler</i>	61P	Enzyme synthesis and adaptation of hepatic 'malic' enzyme. <i>By G. Murphy &amp; D. G. Walker</i>	76P
The biological properties and distribution of mercury. <i>By T. W. Clarkson</i>	61P	Induction of ornithine decarboxylase activity in baby-hamster kidney cells. <i>By W. T. Melvin, R. Y. Thomson &amp; J. Hay</i>	77P
Analytical procedures used in the determination of mercury in the body. <i>By L. Magos</i>	63P	The induction of ornithine decarboxylase during lymphocyte stimulation by phytohaemagglutinin. <i>By J. E. Kay &amp; V. J. Lindsay</i>	78P
The biotransformation of organomercury compounds. <i>By J. W. Daniel</i>	64P	The induction of ornithine decarboxylase in cultured hepatoma cells. <i>By B. Hogan &amp; A. Blackledge</i>	78P
Permeability effects of organomercurials. <i>By M. J. Selwyn</i>	65P	Creatine kinase activity in cultures of differentiating myoblasts. <i>By R. Zalin</i>	79P
The biological alkylation of mercury. <i>By L. Landner</i>	67P	The effect of aflatoxin B <sub>1</sub> on ribonucleic acid synthesis in control and cortisol-stimulated rat liver. <i>By G. E. Neal</i>	79P
Mercury in food. <i>By A. Tolan &amp; G. A. H. Elton</i>	69P	Possible role of a thiol group in lactose synthetase A protein. <i>By B. J. Kitchen &amp; P. Andrews</i>	80P
The influence of Tween 80 on the metabolism of microsomal biphenyl oxygenases. <i>By M. D. Burke &amp; J. W. Bridges</i>	70P	Active-site-directed irreversible inhibition of 4-aminobutyrate aminotransferase by ethanolamine <i>O</i> -sulphate. <i>By L. J. Fowler &amp; R. A. John</i>	80P
The influence of storage conditions on microsomal drug-metabolizing activity. <i>By M. D. Burke &amp; J. W. Bridges</i>	71P	Metabolism of sulphated insulin in the rat. <i>By J. H. Thomas &amp; C. G. Curtis</i>	81P
Daily rhythmic variations in hamster liver drug metabolism and associated parameters. <i>By M. D. Burke, B. G. Lake, J. M. Tredger, J. Chakraborty &amp; J. W. Bridges</i>	72P	Nitrosation of food amines under simulated stomach conditions. <i>By B. E. Newton, M. J. Saxby, C. L. Walters, D. V. Parke &amp; R. Walker</i>	82P
Evidence that the diurnal variation in rat liver 3-hydroxy-3-methylglutaryl-coenzyme A reductase activity is initiated by feeding. <i>By R. Booth, K. W. Gregory &amp; C. Z. Smith</i>	72P	Gaseous products of the interaction of sodium nitrite with porcine skeletal muscle. <i>By G. Woolford, R. J. Casselden, C. L. Walters, D. V. Parke &amp; B. J. Gould</i>	82P
Some factors affecting liver microsomal drug metabolism in the chicken. <i>By A. H. Drummond, J. M. McCall &amp; W. R. Jondorf</i>	73P	A microsomal catechol <i>O</i> -methyltransferase from rat liver. <i>By J. I. McCormick, R. Franagan &amp; A. G. Lloyd</i>	83P
Stimulation of tryptophan metabolism in the rat by 4-methylamino-3'-methylazobenzene and 2-acetamidofluorene. <i>By J. G. Chalmers</i>	74P		

	PAGE		PAGE
Effects of ethoxyquin on hepatic microsomal enzymes.		Hepatic and extrahepatic reduction of nicotine 1'-N-oxide in rats.	
By D. V. Parke, A. Rahim & R. Walker	84P	By R. M. Dajani, J. W. Gorrod & A. H. Beckett	88P
The binding of aliphatic carbamates to bovine serum albumin.		Purification of bile salts on columns of Sephadex LH-20.	
By A. G. E. Wilson, J. B. Houston & J. W. Bridges	85P	By E. S. Haslewood & G. A. D. Haslewood	89P
Effect of inducers on the metabolism and excretion of disodium cromoglycate in rats.		Chemical and biological aspects of certain bacterial endotoxins.	
By M. G. Neale & G. F. Moss	85P	By J. Janda	89P
Induction of aryl hydrocarbon hydroxylase in various tissues of the rat by methylenedioxy-phenyl compounds.		Spectral evidence for the presence of cytochrome P-450 in microsomal fractions obtained from some higher plants.	
By B. G. Lake & D. V. Parke	86P	By A. Markham, G. C. Hartman & D. V. Parke	90P
A comparison of the interactions of trichloro-fluoromethane and carbon tetrachloride with hepatic cytochrome P-450.		Structure-activity relationships for the induction and inhibition of hepatic microsomal enzymes in the rat by organohalogen compounds.	
By P. J. Cox, L. J. King, D. V. Parke	87P	By C. Franklin & I. B. el-Tayeb	90P
The effect of carbenoxolone on the subcellular distribution of [ <sup>3</sup> H]aldosterone in rat kidney.		Biochemical and pathological differences in hepatic response to chronic feeding of safrole and butylated hydroxytoluene to rats.	
By M. J. Humphrey, W. E. Lindup, D. V. Parke & J. Chakraborty	87P	By T. J. B. Gray, D. V. Parke, P. Grasso & R. F. Crampton	91P

### Index of Authors

	PAGE		PAGE		PAGE
Abe, H.	547	Carloni, M.	443	Edwards, D. J.	495
Andrews, P.	80P	Casselden, R. J.	82P	el-Tayeb, I. B.	90P
Annisson, E. F.	607	Chakraborty, J.	72P, 87P	Elton, G. A. H.	69P
Arnott, S.	453	Chalmers, J. G.	74P	English, P. D.	467
Avery, M. D.	363	Chaplin, M. F.	417	Evans, W. C.	373, 383
Barra, D.	443	Clarke, J. B.	397	Fasella, P.	443
Beckett, A. H.	88P	Clarke, P. H.	47P	Fitt, P. S.	343, 355
Bhat, J. V.	425	Clarkson, T. W.	61P	Fowler, L. J.	569, 80P
Bickerstaffe, R.	607	Coon, H. G.	48P	Franagan, R.	83P
Bidstrup, P. L.	59P	Cornish-Boweden, A. J.	637	Franklin, C.	90P
Blackledge, A.	78P	Cox, P. J.	87P	Garssen, G. J.	435
Blau, K.	495	Crabtree, B.	391	Gelboin, H. V.	48P
Boldingh, J.	435	Crampton, R. F.	91P	Gibbons, G. F.	363
Booth, R.	72P	Curtis, C. G.	81P	Gorrod, J. W.	88P
Bossa, F.	443	Curzon, G.	50P	Gould, B. J.	82P
Braun, D. G.	539	Dajani, R. M.	88P	Grasso, P.	91P
Bray, R. C.	641	Daniel, J. W.	64P	Gray, T. J. B.	91P
Bridges, J. W.	70P, 71P, 72P, 85P	Dawson, A. G.	525	Greengard, O.	48P
Britton, H. G.	397	De Lucca, F. L.	335	Gregory, K. W.	72P
Bruce-Robertson, A.	533	De Matteis, F.	52P	Guiochon, G.	56P
Bunyan, J.	467	Doonan, H. J.	443	Hartman, G. C.	90P
Burke, M. D.	70P, 71P, 72P	Doonan, S.	443	Haslewood, E. S.	89P
Butler, W. H.	61P	Drewes, S. E.	589		
		Drummond, A. H.	73P		