Contents

Volume 3, Part 4, 1975

556TH MEETING, LONDON	
Colloquium: Mass Spectrometry in Biochemistry	PAGE
Applications of chemical ionization mass spectrometry. By J. M. Wilson	453
· ·	455
Field desorption and field ionization mass spectrometry. By D. E. Games	460
Mass spectrometry of carbohydrates. By J. F. G. Vliegenthart & J. P. Kamerling	400
Gas chromatography-mass spectrometry in steroid analysis (by title only). By C. J. W. Brooks	4.62
Qualitative aspects of mass spectrometry and drug metabolism. By M. G. Lee & B. J. Millard	462
Protein sequence analysis and the discovery of a new amino acid in prothrombin. By H. R. Morris	465
Colloquium: The Structure and Function of Iron-Sulphur Proteins	
The structure of iron-sulphur proteins as deduced from physical and model studies (by title only). By W. D. Phillips	468
Chemical and electron-paramagnetic-resonance studies on iron-sulphur centres (by title only). By W. H. Orme-Johnson	468
A model of the tetrahedral iron cluster in iron-sulphur proteins. By A. J. Thomson	468
Biological functions of iron-sulphur proteins. By D. O. Hall, K. K. Rao & R. Mullinger	472
Iron-sulphur systems in some isolated multi-component oxidative enzymes. By R. C. Bray, M. J. Barber, H. Dalton, D. J. Lowe & M. P. Coughlan	479
Effects of solvent on the properties of ferredoxins. By R. Cammack	482
Nitrogenase in Azotobacter chroococcum and Klebsiella pneumoniae. By R. R. Eady, C. Kennedy, B. E. Smith, R. N. F. Thorneley, M. G. Yates & J. R. Postgate	488
Iron-sulphur proteins in the photosynthetic electron-transport system of oxygen-evolving organisms. By M. C. W. Evans	492
Communications	
Optimization of tissue-culture conditions for differentiation of muscle from dissociated cells. By T. R. Skrbic, R. Yasin, G. van Beers, D. Bulien & E. J. Phompson	496
•	470
The effect of 2-deoxy-D-glucose and 3-O-methyl-D-glucose on mucosubstance secretion in cell culture. By R. Duguid & J. C. Marsden	498
The metabolic fate of chondroitin [35S]sulphate proteoglycan in the rat. By K. M. Wood, F. S. Wusteman & C. G. Curtis	500
The methylation of mercury by the gastro-intestinal contents of the rat. By I. R. Rowland, M. J. Davies & P. Grasso	502

vi CONTENTS

	PAGE
Respiration rates and adenosine triphosphate synthesis in rat liver mitochondria: State 4-3-4 transition experiments. By G. P. R. Archbold, C. L. Farrington, A. M. McKay & F. H. Malpress	504
Adenosine triphosphate synthesis in rat liver mitochondria: Change of media and the state-4 jump. By G. P. R. Archbold, C. L. Farrington & F. H. Malpress	507
A direct effect of insulin on fatty acid monodesaturation in the perfused mouse liver. By D. M. W. Salmon & D. A. Hems	510
Contribution of lactate carbon to fatty acid synthesis in adipose tissue of normal and genetically obese (ob/ob) mice. By E. A. Rath, A. Beloff-Chain & D. A. Hems	513
Fatty acid synthesis in the perfused liver of adrenalectomized rats. By C. J. Kirk, T. R. Verrinder & D. A. Hems	515
The urinary excretion of glycollic acid and threonic acid by xylitol-infused patients and their relationship to the possible role of 'active glycolaldehyde' in the transketolase reaction in vivo. By R. A. Chalmers, A. M. Lawson, S. Hauschildt & R. W. E. Watts	
Polyamine-synthesizing enzymes during recovery from nutritionally induced growth restriction. By P. A. McAnulty & J. P. G. Williams	521
Studies on the uptake of taurine by the isolated neural retina and pigment epithelium of the frog. By N. Lake, J. Marshall & M. J. Voaden	524
Ammonia and brain glutamine: Inhibition of glutamine degradation by ammonia. By D. F. Matheson & C. J. van den Berg	525
The formation of glutamine in mouse brain: Effect of amino-oxyacetic acid and ammonia. By C. J. van den Berg & D. F. Matheson	528
The regulation of nitrate reductase in the fungus Aspergillus nidulans. By N. S. Dunn-Coleman & J. A. Pateman	531
Gramicidin S synthetase: Variations in the activities of the light and heavy enzymes with growth of culture of <i>Bacillus brevis</i> . By R. Barraclough & S. Laland	534
Use of deuteriated carrier plus homologous internal standard in the estimation of prostaglandin $F_{2\alpha}$ by gas chromatography-mass spectrometry. By H. T. Cory, P. T. Lascelles, B. J. Millard, W. Sneddon & B. Wilson	
The specificity of 5α -dihydrotestosterone binding in human prostate cytosol preparations. By R. A. Cowan, S. K. Cowan & J. K. Grant	537
Effect of zinc on androgen metabolism in the human hyperplastic prostate. By A. M. Wallace & J. K. Grant	540
A model for the replication of double-stranded ribonucleic acid mycoviruses. By K. W. Buck & G. Ratti	542
Control of ribonucleic acid polymerase A activity during lymphocyte activation by phytohaemagglutinin. By J. E. Kay & V. J. Lindsay	544
Phosphorylation of ribosomal proteins and the inhibition of protein biosynthesis. By A. D. Rankine & D. P. Leader	546
Myocardial microsomal protein kinases from the rat and the rabbit. By K. Gibson & M. Newcomb	547
The inhibition of catecholase activity by cuticle extracts in larvae of the fleshfly (Sarcophaga barbarta). By L. Hughes & G. M. Price	549
The control and site of synthesis of the haemolymph pro-tyrosinase in larvae of the fleshfly (Sarcophaga barbarta). By L. Hughes & G. M. Price	551

CONTENTS	vii
Effect of transition-state analogue complexes on trypsin susceptibility of creatine kinase. By E. J. Milner-White & D. Young	554
BOOK REVIEWS	557