

postulated elastic changes in the configuration of the myosin chain-molecules, we have never expressed any views on the matter, since our experiments on living muscle are still incomplete.

Such unjustified statements as those here mentioned cannot but be damaging to the much-desired co-operation between physics and biology, and we feel that they should not be allowed to pass unchallenged.

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May 8.

<sup>1</sup> A. E. Mirsky, *J. Gen. Physiol.*, **19**, 571 (1936).

<sup>2</sup> W. T. Astbury and Sylvia Dickinson, *NATURE*, **135**, 95 (1935).

#### Ascorbic Acid in Paroxysmal Hæmoglobinuria

IN examining C hypovitaminosis we found a patient, suffering from paroxysmal (cold) hæmoglobinuria, highly deficient in ascorbic acid. The patient was treated with ascorbic acid, 300 mgm.

being given intravenously for several days. The hæmoglobinuria, easily elicited before, disappeared. Though the treatment was stopped more than six weeks ago, no paroxysm can now be stimulated. The protective action of ascorbic acid on red blood corpuscles could also be demonstrated *in vitro*. We think this experience justifies a trial with ascorbic acid in blackwater fever.

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#### Origin of the Word 'Monolayer'

I SHOULD be very much obliged if any reader of NATURE could say who first coined the convenient word 'monolayer' (or 'monofilm'), as an abbreviation of the rather cumbersome expression 'monomolecular (or unimolecular) layer'.

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### Points from Foregoing Letters

PROF. H. MUNRO FOX shows that the oxygen consumption of English marine invertebrates is greater than that of northern species, each at the temperature of their habitat, and, since their activities are the same, he postulates a greater non-locomotory metabolism. Ciliary activity is parallel to oxygen consumption, but respiratory movements of the warmer-water Crustacea are no faster than those of colder-water species, and thus correspond to the similar oxygen consumptions postulated for locomotion.

Dr. R. Peierls points out that Shankland's experiment is compatible with the assumption that, in the Compton effect, a recoil electron and a secondary photon are emitted simultaneously, although not in the relative directions current theory would require. This assumption would also be compatible with the positive result of the Bothe-Geiger experiment.

Accepting Milne's theory, according to which the multitude of distant galaxies form a continuous luminous background for the night sky, M. Leontovski calculates the spectrum of this background. He concludes that more than half the radiation with which the universe is filled is infra-red, and that to a very sensitive eye the colour of the night sky would appear dark red.

Drs. H. von Halban, jun. and P. Preiswerk confirm Frisch and Placzek's assumption that the ability of boron to capture neutrons decreases with the velocity of the neutron; there is as yet no definite proof that the capture cross-section is proportional to  $1/v$ . The authors describe results of various experiments on neutrons captured by lithium, dysprosium, silver and rhodium.

Dr. D. Meksyn suggests that a neutron is formed from a proton and an electron with conservation of energy and momentum, the excess energy of the particles being transformed into rest mass. A neutron has no definite mass; the kinetic energy of  $\beta$ -rays at disintegration is acquired at the expense of the rest mass of a neutron.

Further study of the decomposition of acetaldehyde (between 360° and 500°) in 'packed' and unpacked

tubes, leads Prof. M. W. Travers and R. V. Seddon to the conclusion that the process is more complex than has been suggested hitherto. They believe that a short-lived intermediate compound is formed, which may either give rise to methane or, if it strikes a surface during a given short period, may lead to the formation of propylene. Hence the latter is preferentially formed in 'packed' tubes.

J. B. M. Coppock and S. M. Partridge find there is no change in optical rotatory power and other physical constants in the reduction products of  $\gamma$ -phenyl- $\alpha$ -methylallyl alcohol with light and heavy hydrogen.

The absorption of light by sulphuric acid, potassium, silver and zinc sulphates and by ammonium nitrate, in the vapour state, has been determined by M. Israrul Haq and Prof. R. Samuel. The authors point out the bearing which their results have on the energy of dissociation of  $\text{SO}_3$  and  $\text{SO}_4^{--}$  and upon the constitution of ammonium nitrate.

A table giving the displacement in the fine structure of certain lines in the arc spectrum of platinum (connected with the presence of the four isotopes 198, 196, 195 and 194) is given by Dr. S. Tolansky and E. Lee. Their measurements are in good agreement with those of Jaekel and Kopfermann, and indicate that the isotopic displacements of the three even isotopes are equidistant, the lightest isotope, 194, lying deepest.

A colour reaction specific for vitamin D—in so far as it is not given by ergosterol and its irradiation products—is described by Dr. W. Halden and Mrs. H. Tzoni. It depends on the appearance of a deep violet colour on the addition of pyrogallol and aluminium chloride (in alcoholic solutions) to a suitably prepared sample. Vitamin A and related products must be removed.

ERRATUM. Referring to the note in this column (May 16) on apatite in the enamel of teeth, J. Thewlis points out that apatite is represented by the general formula  $3(\text{Ca}_3\text{P}_2\text{O}_8)\text{CaX}$ , in which X can represent O,  $(\text{OH})_2$ ,  $\text{CO}_3$ ,  $\text{F}_2$  and  $\text{Cl}_2$ ; the particular form of apatite present in teeth has not been determined, but it is known that practically no fluorine is present.