

It is to be hoped that further evidence on this point may be obtained from these sites during the present year.

J. P. T. BURCHELL.

30 Southwick Street,  
Hyde Park,  
London, W.2.  
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<sup>1</sup> *Geol. Mag.*, 72, 327 (1935).

<sup>2</sup> *NATURE*, 130, 279 (1932); *Antiq. J.*, 15, No. 2, 130 (1935).

#### Storage of Radium in War Time

RADIUM is not only a valuable but also a very dangerous substance. If, during an air raid, any quantity of radium was dispersed by violence, the buildings in which it was dispersed, as well as a considerable area surrounding the buildings, would be for many years to come a menace to any people who inhabited them. One-hundredth of a milligram would probably be fatal if inhaled.

It is therefore necessary that steps should be taken to provide for the safe custody of radium in war time, and a conference has been held between representatives of the British X-ray and Radium Protection Committee, King Edward's Hospital Fund for London, the Ministry of Health and the National Radium Commission, to consider this matter.

The National Radium Commission is compiling a register of owners and holders of radium, with a view to satisfactory arrangements being made. The Commission earnestly requests all persons who have radium in their custody or possession (including the responsible official of institutions holding radium) to notify the Commission, stating the amount of radium held.

GEORGE F. STEBBING.  
(Secretary).

National Radium Commission,  
18 Park Crescent,  
London, W.1.

#### Points from Foregoing Letters

L. MEITNER has collected recoil nuclei resulting from the fission of thorium and has found that some of the fission products are chemically analogous to those fission products of uranium which have formerly been assigned to elements beyond uranium. The decay of the new fission products has been analysed into two exponentials with 40 minutes and 14.5 hours half-value period.

In accordance with Fröhlich's theory of electronic breakdown, A. E. W. Austen and W. Hackett find that the electric strength of polar crystals such as potassium bromide may be calculated from the optical properties, the dielectric constant and the molecular volume. Similarly, the electric strength of thin sheets of insulating material (mica) is found to increase with decreasing thickness (from  $10^{-2}$  to  $10^{-5}$  cm.) and also with increasing temperature up to a critical value around  $400^{\circ}$  K.

E. G. Richardson shows that the absorption of supersonics in carbon dioxide is increased by subjecting the gas to infra-red radiation of wave-lengths corresponding to the natural (vibrational) frequencies of the carbon dioxide molecule.

A new mechanism for the excitation of the forbidden nitrogen line N I and for increasing the intensity of the oxygen line O I with height and according to the type of the aurora, is suggested by M. Nicolet, who states that, after the emission of the Vegard-Kaplan bands, the nitrogen molecules can excite the atom O I and bring it to the metastable state  $^2D$ , and the atom N I to the state  $^2P$ .

The Miller effect has been employed by N. H. Roberts to increase the periodic time of oscillations obtainable from valve oscillators using capacity-resistance tuning.

F. L. Hopwood and J. T. Phillips record the polymerization of a number of unsaturated liquid hydrocarbons by neutrons and ionizing radiations. They submit a graph illustrating the difference in the rate of polymerization of methyl methacrylate when irradiated by two similar sources of gamma rays, of which only one has a marked neutron emission.

A number of new acetylated derivatives of amino hexoses, in which the amino group is attached in the 2 or 3 position in the carbon chain, have been isolated by G. J. Robertson and W. H. Myers. One of them proves to be a derivative of glucosamine.

R. T. Williams states that when *dl*-menthol is administered to rabbits, 60 per cent of it is excreted in the urine combined with glucuronic acid. Menthyl-glucuronic acid is easy to isolate from the urine in excellent yields as the ammonium salt. This salt contains unequal amounts of *d*- and *l*-menthol, the *d*-form predominating.

Animal tissues contain besides the previously known diaphorase I, which transports hydrogen from dihydrocodehydrogenase I to acceptors like methylene blue or cytochrome, another enzyme, which catalyses the analogous reaction for dihydrocodehydrogenase II, according to E. Adler, H. v. Euler and G. Günther. The new enzyme, for which the name "diaphorase II" is proposed, is probably a flavoprotein.

Commenting on Dr. Littler's communication on resonance in the auditory meatus, N. Fleming directs attention to the influence of the conditions at the entrance to the meatus, and gives results of some measurements, by the probe tube method, with the meatus open to the air.

L. Harrison Matthews records the occurrence of a post-partum oestrus in *Nycteris luteola*, an East African bat, and points out the possibility of the species being polyoestrous.

An examination of sites of *Colchicum* colonies has failed to reveal anything of a morphologically abnormal nature in the associated flora. It is suggested by G. H. Bates that the influence of the disintegrating corms in producing polyploids, as demonstrated by Kostoff, would be nullified by the suppressing effect of the taller normal species.

As the result of extensive excavations in the Lower Thames valley and elsewhere, J. P. T. Burchell withdraws previous statements concerning the discovery of pottery of Upper Palaeolithic age, which he now considers as belonging to Neolithic - Bronze Age times.