

in thiophosphoryl chloride can then be assigned to the P—S bond. The shifts $\Delta\nu = 171; 246; 432$ are very strong and the corresponding anti-Stokes lines excited by $\lambda = 4046$ can be seen in the spectrum.

A further study of the Raman spectrum of these two compounds as regards polarization and structure of the Raman lines is in progress, and the results of these studies will be published elsewhere.

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¹ Langseth, *Z. Phys.*, **70**, 350 (1936).

² Venkateswaran, *Ind. J. Phys.*, **6**, 275 (1931).

Scientists and War

At a meeting of prominent scientists held at Bangalore on August 22, under the joint auspices of the Institute of Chemistry of Great Britain and Ireland (Bangalore Branch) and the Society of Biological Chemists (India), to discuss the question

of the moral responsibility of scientists in modern warfare, which has recently attracted much attention in these columns¹ and elsewhere, the following resolution was carried:

"This meeting while pledging its support to every united effort which can be made to abolish methods of warfare which are repugnant to the common instinct of humanity, recognizes that the more important objective is the abolition of war itself. To attain this end it would urge constant and strenuous activity on the part of thinkers and men of science. In particular, it records its opinion that more attention should be given by them to the study of the new economic conditions which of necessity accompany the advance of scientific research. Of equal or greater importance is the study of means for controlling the evil effects of mass suggestion by the more powerful agency of widely disseminated right ideas through the adoption of an international system of education."

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¹ NATURE, **137**, 757 (1936); **137**, 829 (1936); **138**, 80 (1936); *J. Inst. Chem.*, Pts. 1 and 2 (1935).

Points from Foregoing Letters

FURTHER experiments on the production of photoelectrons in argon gas by X-rays, carried out by Dr. E. J. Williams and E. Pickup, support the quantum theory and the principle of conservation of energy, the applicability of which to X-radiation processes had been disputed, following upon the results of Shankland's experiments.

The radioactivity induced in silver at 20°, 77° and 290° K. by slow neutrons of different energies (groups A, B, and C of Amaldi and Fermi) has been determined by Drs. A. Arsenjewa-Heil, O. Heil and C. H. Westcott. They are led to conclude that the energies of groups A and B must be much lower than had been supposed, and that the absorption of boron is not inversely as the velocity of the neutrons.

The changes which sugar-like substances undergo in, or under the influence of, chick embryos of 4–6 days' incubation have been studied by Dr. J. Needham, W. W. Nowinski, R. P. Cook and K. C. Dixon, and compared with those effected by brain and muscle tissues. They find that the embryo does not glycolyse phosphorus-containing intermediate compounds; that glucose and mannose are the only sugars which give steady, long-continuing glycolysis; that the Pasteur effect is extremely marked; that the phosphorus distribution in various fractions is different from that obtained with muscle and brain preparations.

Referring to the reliability of different earthquake-registering stations deduced by Dr. H. Jeffreys, R. C. Hayes recalculates the values for the Pacific stations at Wellington and Christchurch; he finds that Wellington has a slightly greater reliability factor and considers that, in view of recent improvements, both stations should be included among those of good reliability. Dr. Jeffreys agrees that the order of reliability of Christchurch and Wellington stations cannot be definitely determined owing to the probable error involved in the calculations; he recommends that, for the time being, a 'weight' of 0.6 be accepted for Wellington observations.

Profs. W. Schmidt and H. Stansfield have described instances of the capillary wave that often appears when flowing water encounters an obstacle. Further observations are recorded by Dr. R. O. Hall, who suggests that the line marks the boundary of a compressed surface film of colloidal matter.

The difference in the shape of the shell of the Portuguese oyster, *O. angulata*, living on the shore, as compared with that of oysters permanently below tide-marks, is accounted for by Prof. J. H. Orton in terms of the surroundings. In deeper and less muddy water, the 'mantle' of the oyster, which secretes the shell, is uniformly extended and produces a broad shell; in the muddier tidal water of the foreshore, the mantle is probably protruded mainly at the end of the shell and an elongated form results.

Photographs of micro-organisms (three bacteria and a phytoflagellate) from the Dead Sea, where the total salt concentration is 28–29 per cent, are submitted by Dr. B. Wilkansky.

Dr. John MacLeod records *Phormia terræ-novæ* R.-D. as a hitherto unsuspected agent in the causation of cutaneous myiasis (attack on the skin by larvæ of flies) in sheep in Scotland (western Argyll and Mull).

H. F. Walton and J. H. Wolfenden have measured the temperature variation of the electrolytic separation of the hydrogen isotopes at mercury and silver cathodes, and find that the separation coefficient at silver falls with rising temperature while that at mercury is almost unaltered. Addition of a catalyst poison lowers the separation coefficient considerably and alters the sign of its temperature coefficient.

A reduction in the values of the shifts in the Raman spectrum of thiophosphoryl chloride, PSCl_3 , as compared with phosphorus oxychloride, POCl_3 , is found by Prof. V. N. Thatte.