

words as dogmas by which to judge and condemn, without examination, the work of their contemporary experimenters. If there is any analogy to be drawn, it is surely between Lysenko and the Aristotelians (ancient or modern).

However, I am less concerned with that than with the possible implication that I wish forcibly to restrict Prof. Milne's work. On the contrary, I would place freedom of thought and expression second only to complete dedication to truth (or truthfulness, for those who think they can dispense with the shorter word) in the list of essential conditions for research. While I wish with all my heart that Prof. Milne would stop inventing systems and telling us what God cannot do, and would return to those problems in astrophysics which he is so peculiarly gifted to solve, I would fight to the last ditch for his right to waste his talents if he so wishes. My complaint is that he does not satisfy the first condition. He deduces systems from pure fancy, but instead of consistently calling them products of the imagination and presenting them as works of art, he tacitly identifies them with the world of experience and calls them scientific. Mathematics, according to the phrase which has been repeated and disregarded *ad nauseam*, is a subject in which we do not know what we are talking about. If Prof. Milne would eliminate such words as time, nebula, universe . . . from his

papers, and substitute  $x, y, z . . . .$  throughout, I would no more seek to restrain his activities than I would those of the surrealists.

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Sept. 15.

#### Tritium or Triterium?

I HOPE it is not too late to protest against the use of the name 'triterium' for the isotope of hydrogen of mass 3. The name appears in the very interesting article by Lord Rutherford in NATURE of p. 303, and has apparently been used elsewhere, to judge by the quotations in that article.

The word 'deuterium' is correctly formed from the Greek δευτερος (*deuteros*), 'second', but the Greek for 'third' is τριτος (*tritos*), not *triteros*. The name which corresponds properly with 'deuterium' is clearly 'tritium', and this word is already in use; for example, papers dealing with this isotope are indexed under 'tritium', and not 'triterium', in the indexes to the British Chemical Abstracts for 1935 and 1936.

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Sept. 1.

#### Points from Foregoing Letters

COMMENTING on a recent remark by Mann and Wells on the production of gold films by heat decomposition of volatile gold compounds, Prof. C. S. Gibson refers to previous experiments of the same type. Also, he points out that in aurous compounds gold is always 2-covalent and that aurous ions, like auric ions, are apparently incapable of existence.

A table with details of the structure of quinhydrone and related compounds, as determined by X-ray analysis, is given by Dr. J. S. Anderson. The position of the quinone and quinol groupings, the relation of compounds of chloranil and bromanil to hexamethylbenzene and other structural characteristics are discussed.

A photomicrograph of coproporphyrin III, obtained from a bovine suffering from congenital porphyria, is submitted by Dr. C. Rimington and G. C. S. Roets, showing that, as in the case of the related uroporphyrins, compounds belonging to both isomeric types (series I and series III) occur in certain pathological states.

Long-range ionization tracks, starting from a common focus in the emulsion of a photographic plate which had been exposed to cosmic radiation for five months at an altitude of 2,300 m., are considered by M. Blau and H. Wambacher to have been produced by disintegration of an atom in the emulsion by a cosmic ray.

Photographs of the solar corona, taken during the total solar eclipse of 1936 by means of a polarigraph with reflecting analyser, show, according to K. G. Zakharin, that the degree of polarization varies in different parts of the corona and also with the wavelength, and that the direction of polarization undergoes a change in the 'streams'.

Prof. S. K. Mitra and K. K. Roy point out that the complete formula for ionospheric dispersion yields

values for the dielectric constant which are greater than, equal to or less than unity, depending on degree of ionization, pressure and the exciting wave-length. The use of a simplified approximate formula had wrongly led to the opinion that theoretical considerations preclude values greater than unity, but such values were found experimentally.

Some characteristic fluctuations noticed in the declination magnetograms obtained at Alibag, near Bombay, are explained by Dr. K. R. Ramanathan as being due to the magnetic field of near lightning discharges. He points out that the magnetometer behaves as the needle of a ballistic galvanometer for these impulsive discharges, and suggests that this may be made the basis of an instrument for measuring the discharges of individual lightning flashes.

Implantations of the anterior pituitary of the frog into immature female white mice are found by Dr. H. Zwarenstein to activate the reproductive apparatus (opening the vagina, increase in weight of ovaries and uterus, and follicular growth).

Dr. S. S. Zilva observed no vitamin P activity on administering a daily dose of either 'citrin', hesperidin or a mixture of hesperidin and eriodictyol to guinea pigs on a scorbutic diet. He obtained, however, a biological response similar to that observed by Prof. A. Szent-Györgyi on administering sub-optimal doses of ascorbic acid. The bearing of these observations on Bentsáth and Szent-Györgyi's latest view concerning the action of vitamin P is pointed out.

ERRATUM.—In the note in NATURE of September 18, p. 509, referring to Dr. A. L. Reimann's communication, the statement: "the linear rate of decay of the phosphorescence of zinc-blende" should read: "the linear rate of decay of the *inverse* of the square root ( $p^{-\frac{1}{2}}$ ) of the phosphorescence of zinc-blende".