a double-rimmed batonette results. By still closer apposition of the two chromophilic regions the chromophobic part completely disappears. Naturally, there are also instances of multiple folding of the walls of the vesicle. The disappearance of the chromophobic part in relation with the Golgi batonette in *Lycastis indica* will be apparent if one compares Figs. 1 and 2.

The absence of the chromophobic part in the network-like Golgi apparatus of many types of mammalian somatic cells has rendered the acceptance of the theory deriving the network from the typical dictyosomes as postulated by Hirschler difficult[6]. We suggest as a provisional hypothesis that the difficulty may be removed if we conceive that the network is derived from the Golgi batonettes of the type seen in *Lycastis indica*, where the chromophobic part disappears ultimately.

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Origin of the Term 'Solute'

REGARDING the origin of the word 'solute'[1], the following may be added to the references concerning the coining of the word by Prof. Donnan and by the late Prof. N. Story-Maskelyne. In a paper presented to the American Academy on May 9, 1894 (cf. *Proc. Amer. Acad.*, **30**, 325; 1895; but perhaps published in a separate part of this volume during 1894), W. D Bancroft wrote : "There seems to me a need for a word denoting the dissolved substance. In future I shall use the word 'solute', meaning the substance dissolved in the solvent". It appears, therefore, that the use of this handy word was proposed independently and almost simultaneously by several chemists so early as 1894. Prof. Bancroft seems to have been the first to introduce the word in a scientific communication, but Prof. Donnan's suggestion was possibly the earliest to appear in print.

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Points from Foregoing Letters

SIR J. J. THOMSON refers to several objections to his views on the nature of light, and shows how they can be overcome by suitable assumptions concerning the structure of the interior of the atom and the mechanism of light emission, about which he points out there is very little known.

The latest version of the theory of supra-conductivity of metals at low temperatures suggested by F. and H. London is simplified by Prof. E. Schrödinger, by assuming Maxwell's equations and the existence of a third type of current, the supra-current, which is added to, or replaces, the ordinary conduction current.

The mean free path of the neutrons obtained from heavy hydrogen subjected to radiothorium radiation is found by Dr. M. Goldhaber to be $4 \cdot 5 \pm 1 \cdot 5$ cm. paraffin. This value cannot apparently be reconciled with that derived from a formula based upon the accepted views, and Dr. Goldhaber concludes that there is no evidence for an excited state of the heavy hydrogen alone, and that another model of the proton–neutron interaction is required.

C. A. Beevers and H. Lipson give a description of a very rapid numerical method for the summation of two-dimensional Fourier series. Sets of printed strips are used, and the method consists merely in the selection and addition of groups of these. Some advantages of this method are pointed out.

Dr. K. Lonsdale has measured the diamagnetic anisotropy of a single crystal of resorcinol. The orientation of the molecular plane relative to the crystal axes has been derived and is found to agree well with the results of a previous X-ray analysis.

The transparence of a very thin film of magnesium metal (100–1000 A. thick) for ultra-soft X-rays (extreme ultra-violet light of 100–300 A. from a molybdenum spark) has been determined by Dr. H. W. B. Skinner and J. E. Johnston. They find a sharp absorption maximum just on the short wavelength side of the absorption edge at 250 A. The fine structure of this absorption edge confirms the information obtained from X-ray emission bands regarding the electron levels in the atoms of the metal. Similar experiments with lithium, cobalt and nickel are in progress.

While investigating the Lyman series of lines in the far ultra-violet, emitted by traces of hydrogen, when a condensed discharge is passed in presence of neon, T. Takamine and T. Suga have observed that certain of the lines were considerably weakened. This, they now find, is due to the presence of a small amount of oxygen, the molecular ions O_2^+ having strong absorption bands in the neighbourhood of the hydrogen lines L_3, L_6, L_8, L_{13}.

X-ray examinations of tooth structure show, according to J. Thewlis, that good enamel—which is smooth and free from pigmentation—contains a large proportion of preferentially oriented apatite (a crystalline calcium phosphate and fluoride), and shows a sufficient degree of calcification. A special orientation of the fibre axis was also observed.

In a 'mottled teeth' area such as Maldon in Essex, where fluorine in the drinking water is the cause of the mottling, it has been found by J. H. Bowes and Miss M. M. Murray that pond water, grass and rabbits' teeth contained considerably more fluorine than similar substances from other parts. This fluorine may be a contributory cause of the abnormal condition of the teeth.

A photograph of a fertile inter-generic hybrid between a sugar cane variety and millet (Guinea corn) is submitted by C. H. B. Williams and C. Cameron.

A photomicrograph of growing ovarian cells showing the evolution of dictyosomes (particles derived from the nucleus of the spermatozoon after fertilisation of the ovum) are submitted by M. K. Subramaniam and R. Gopala Aiyar. It appears that these are formed from Golgi grains which enlarge into vesicles and rupture, giving rise to batonettes; these, the authors suggest, give rise to the network-like Golgi apparatus.