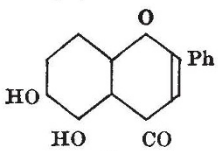
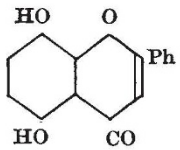
It is of interest that Sugasawa[2] actually succeeded in preparing two derivatives of 5 : 6-dihydroxyflavone and even a crude specimen of 5 : 6-dihydroxyflavone itself, but, because the compounds were not identical with primetin and derivatives, he erroneously assumed that they were derived from 5 : 8-dihydroxyflavone (II).



(I)



(II)

A review of the available evidence leads to the conclusion that primetin is a dihydroxyflavone derived from hydroxyquinol, and must be regarded as 5 : 8-dihydroxyflavone (II). It is probable that another flavone of this type occurs naturally; this is the 4′-methoxy derivative of (II) isolated from the leaves of *Ginkgo biloba* L. by Furukawa[4]. The synthesis of these 5 : 8-dihydroxyflavones is in progress. A detailed account of this work will shortly be published elsewhere.

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April 8.

[1] Hattori, S., and Nagai, W., *J. Chem. Soc. Japan*, **51**, 162 (1930); *Acta phytochim.*, **5**, 1 (1930).
[2] Sugasawa, S., *J. Chem. Soc.*, 1621 (1933); *J. Pharm. Soc. Japan*, **56**, 105 (1936); Baker, W., *J. Chem. Soc.*, 1953 (1934); Mahal, H. S., and Venkataraman, K., *Current Science*, **6**, 450 (1938).
[3] See Shah, R. C., Mehta, C. R., and Wheeler, T. S., *J. Chem. Soc.*, 1555 (1938).
[4] Furukawa, S., *Sci. Papers Inst. Phys. Chem. Res. Tokyo*, **19**, 27, 39 (1932); **21**, 278 (1933).

Points from Foregoing Letters

B. F. J. Schonland and his associates present evidence supporting the view of Australian workers that the oscillatory structure of atmospherics arises from multiple reflections from the *E*-layer of the ionosphere. They find that the effective height of reflection is approximately constant (85 km.) except in the neighbourhood of the thunderstorm producing the atmospheric, where it decreases from 85 km. at 300 km. distance to 50 km. immediately above the storm.

The cross-sections for the transformation of nitrogen (^{14}N), when bombarded by fast neutrons, into boron (^{11}B) or carbon (^{14}C) are found by E. Baldinger and P. Huber to have the values $1{\cdot}63$ and $0{\cdot}4 \times 10^{-25}$ cm.^{2} respectively. The reaction energy for the nitrogen–boron transformation is $-0{\cdot}43$ Mev.

The crystal structure of α-chitosamine hydrochloride and hydrobromide has been determined by E. G. Cox and G. A. Jeffrey without the assistance of stereochemical data. The authors state that it proves the correctness of the configuration assigned to glucose derivatives, and in particular shows that chitosamine is definitely a derivative of glucose. The results also demonstrate the existence of the pyranose sugar ring and show that in α-glucose derivatives the groups attached to the first and second carbon atoms are in *cis* positions.

E. Holiday states that deductions from observation of change of absorption at λ 240 mμ as to whether CO groups are formed during enzymic digestion of a protein are not possible until account has been taken of the large masking effect due to accompanying change in absorption of the aromatic amino-acids.

Sedimentation curves for several proteins (thyroglobulin, antitoxic diphtheria pseudoglobulin and thymus nucleohistone) are submitted by H. P. Lundgren, indicating the formation of 'labile' components with lower sedimentation constants; this may be brought about by the simple expedient of increasing the protein concentration and reducing the electrolyte content of the solution.

A. J. Turner communicates a simple formula for calculating the relative humidity directly from readings of a ventilated wet- and dry-bulb hygrometer; the formula gives results accurate to 1 per cent relative humidity between 50 per cent and 90 per cent R.H., from 40° F. to 120° F.

D. N. Truscott reports a graphical method of circuit analysis and synthesis, based on the use of charts with logarithmic scales of impedance and frequency; this has been used in radio receiver design.

A survey of the structure of the Bermuda Islands by means of sound-velocity technique indicates, according to G. P. Woolard and M. Ewing, that the islands consist of four main volcanic cones with several minor ones, and are surrounded by a series of concentric folds which die out in amplitude with distance from the islands. Sound refraction measurements show the tops of two of the volcanoes to be at a depth of about 250 ft.

R. J. Pumphrey has recorded microphonic potentials in response to sound from the non-auditory part of the labyrinth of teleost fish. Such potentials are therefore not an absolute indication of the reception of acoustic or vibratory stimuli.

By isolating single cells of plankton diatoms (*Chætoceros*) and cultivating them in suitable media, T. Braarud has been able to follow the formation of ciliate microspores and to show that such spores represent a mode of reproduction in *Chætoceros*.

I. J. Kligler and H. Bernkopf describe experiments showing that it is possible to cultivate fixed rabies virus in the developing chick embryo provided that (*a*) the allantois of embryos 5 to 6 days old are infected, and (*b*) passages are made 9 to 10 days after the infection. Passages from embryo to embryo can be made with emulsions of either allantois or embryo brain.

H. Liche confirms the existence of copulative ovulation in the female cat and suggests that it is conditioned by the presence of numerous interstitial cells in the ovary. He describes the pseudo-pregnancy and anatomical as well as the histological changes which occur during the different stages of the œstrous cycle.

Primetin, isolated from *Primula modesta*, has previously been regarded as 5 : 6-dihydroxyflavone. This substance has now been synthesized by W. Baker, who finds that it is not identical with primetin. There can be little doubt that primetin is 5 : 8-dihydroxyflavone.