phenomenon described above, *viz.*, the decrease in electrolytic conduction in magnetic fields.

A detailed account of this investigation will be published shortly.

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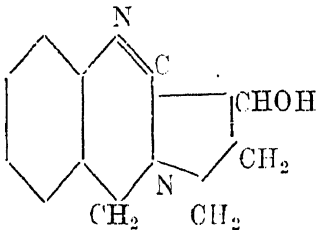
[1] *Curr. Sci.*, 1934, 2, 387.
[2] *Praktika*, 1931, 6, 130.

Vasicin.

IN continuation of our note on the above subject published in *Current Science*[1] we wish to state that the picronolate of the reduction product of the base II mentioned in that paper, has been found to be identical with the picronolate of reduced vasicin. Therefore the structure of vasicin is linear and is probably I



We had started on the synthesis of I by preparing γ *o*-nitro-benzyl amino-α-hydroxy butyric acid with the object of closing up the quinazoline ring by reduction with zinc dust and acetic acid after lactamisation but we were surprised to find that Späth, Kuffner and Platzer[2] have just effected almost an identical synthesis. In view of the position stated by us in *Current Science*[3] we thought that we shall be allowed to complete our work but obviously it is not to be.

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[1] Vol. 3, 352–353.
[2] *Ber.*, 1935, 68, 700.
[3] *Loc. cit.*

2 : 4 : 5-Trimethoxy-1-allyl-benzene. Asarone (allyl).

OLEFINIC phenols and their ethers are among the commonly occurring and important compounds in the vegetable kingdom. Though asarone (2 : 4 : 5 trimethoxy-1-propenyl-benzene) has been known since 1890, its allyl isomer has not been known, attempts at its synthesis having proved unsuccessful. It is the only allyl isomer among the naturally occurring olefinic phenolic ethers that is unknown. Recently Kelkar and B. S. Rao[1] during an examination of calamus roots found that the volatile oil contained 82 per cent. of a body closely allied to asarone, further purification leading to samples with 85 per cent. The latter could not be induced to solidify, thus showing that it was different from asarone which melts at 67°C. But as it had not been obtained chemically pure no definite conclusion could be reached.

Asarone (allyl) has now been obtained pure by treatment with selenious acid which holds back the impurities and final distillation over sodium. It is converted quantitatively into asarone (propenyl, m.p. 67°C.) by fusion with caustic potash, like other allyl phenolic ethers. The properties of asarone (propenyl and allyl) are as follows :—

	M.p.	B. P.	d	n_d^{30}	$(R_1)_D$
Asarone (allyl) (from Calamus oil)	liquid	283/685 mm.	1·078 (d_4^{30})	1·5578	62·2
Asarone (propenyl)	67°·C	296/760 mm.	1·165 (d_4^{20})	1·5643	62·7

Its physical and chemical properties which will be described elsewhere are in agreement with its being an allyl isomer of asarone.

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May 1935.

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[1] *Jour. Ind. Inst. Sci.*, 1934, 17A, 29.

Vitamin C Content of Some Indian Plant Materials.

IN the course of a search for a suitable raw material for the preparation of ascorbic acid for the study of its action on catheptic proteases, we have examined a large number of indigenous fruits and vegetables for their content of this vitamin, using Tillmans' method of titration against 2 : 6 dichlorophenol-indophenol as modified by Harris[1] and by Emmerie and Eekelen.[2] Some of the results are given in the following table; parallel titrations against iodine are also included, the reducing power being expressed as ascorbic acid.

The experimental findings not only show the existence of strikingly rich sources of vitamin C among materials hitherto not examined, but also throw interesting light on the variations in the conditions in which it exists in plants. Thus the four materials, Nos. 2—5, in the table below give extracts which undergo oxidation very readily as do solutions of pure ascorbic acid. This tendency to rapid oxidation runs parallel with the absence of any considerable amount of other reducing material in the extracts, as shown both by the proximity of the values obtained by titration against the indicator and against iodine, as well as by the small fall in these titres after mercury

TABLE I.

Material	mg. of ascorbic acid per gm. of fresh material			
	Initial Value		Value after mercury treatment	
	Indicator	Iodine	Indicator	Iodine
1 The Indian gooseberry—*Phyllanthus emblica* Linn. ..	4·13	..	3·65	..
2 Drumstick—*Moringa oleifera* Lamk. Leaf	2·16	2·24	1·92	1·99
3 " " Pod	1·91	2·10	1·91	2·10
4 *Sesbania grandiflora*, pers. Leaf	1·84	2·02	1·64	1·95
5 Chilli—*Capsicum fruitescens*, Linn. Green	1·0	1·44	No precipitate with mercury	
" " Ripe	1·67	2·17		
6 Cashew apple—*Anacardium occidentale*, Linn. Juice (mg. per ml.)	2·03	2·86	1·7	2·05
7 Custard apple—*Anona squamosa*, Linn.	1·03	..	..	..
8 Ber, *Zizyphus jujuba* Jus.	0·84	..	..	..
9 Orange (Sathukudi)	0·63	0·70	..	..

treatment of the extracts. Cashew apple and Indian gooseberry, on the other hand, give extracts of considerable stability, the latter in particular retaining its titre undiminished even after a week's standing. In these materials the difference between iodine and indicator titres are appreciable, and treatment with mercury causes the removal of a large amount of reducing material. After precipitation with mercury the extracts become readily auto-oxidisable, so that it would seem that originally they contained a substance or substances protecting ascorbic acid from oxidation and precipitable by mercury salts. It was further observed that lead acetate and trichloro-acetic acid were also capable of removing the natural antioxidant present in these juices. The nature of these protective (and perhaps interfering) substances is still under investigation but it was thought advisable to publish this short account of the findings already made, especially in view of the announcement by Mawson[3] of the protective action of animal-tissue extracts on ascorbic acid.

Another point to which attention may be drawn is that the ascorbic acid content of chilli, as well as of other fruits tried, attained a maximum at a certain stage of ripeness, the value being lower both in the unripe as well as in the over-ripe fruits.

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May 10, 1935.

[1] Harris and Ray, *Biochem. J.*, 1933, 27, 303; Birch, Harris and Ray, *Ibid.*, 590.

[2] Emmerie and Eekelen, *Biochem. J.*, 1934, 28, 1158.

[3] Mawson, *Biochem. J.*, 1935, 29, 569.