

Aqueous extracted castorcake (500 g. on dry cake basis) containing 20 per cent. moisture was hydrolysed for 18 hours with hydrochloric acid (1.375 litres) of sufficient strength to give a final concentration of 20 per cent., after making allowance for the water in the cake. The hydrolysate was concentrated and then filtered. The residue was washed thoroughly with concentrated hydrochloric acid. The filtrate along with washings was worked out for the recovery of glutamic acid.

The yields of glutamic acid from undefatted, defatted and aqueous extracted castorcake are recorded in Table I.

TABLE I

Nitrogen content %	% Total Nitrogen appearing in Glutamic acid	% Yield of Glutamic acid
(1) 3.2	8.0	2.7
(2) 4.6	7.4	3.6
(3) 4.3	8.4	3.9

(1) Undefatted cake; (2) Defatted cake; (3) Aqueous extracted castorcake.

It is evident from the data given in the above table that the yield of glutamic acid from aqueous extracted castorcake is higher than that obtained from defatted and undefatted cake samples.

The glutamic acid sample obtained as above from the aqueous extracted castorcake showed nitrogen content 10.8 per cent., m.p. 192.7° C. and $(\alpha)^{20}_D = (+) 31.8$ while that of the standard sample are 10.9 per cent., 199.0° C., $(+)$ 31.5 respectively.

The authors' grateful thanks are due to Dr. R. C. Shah for helpful suggestions and criticisms.

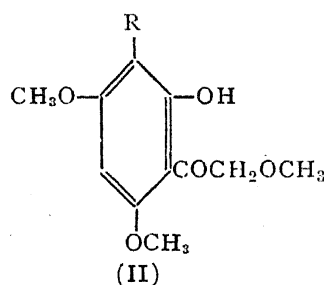
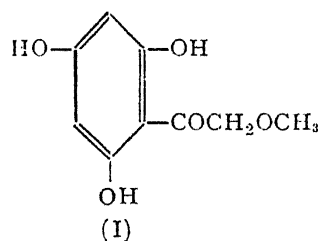
National Chem. Lab.
of India,
Poona-8, June 27, 1954.

B. N. JOSHI.
J. P. VERMA.

1. Varma, J. P., *J. Oil and Oil Seeds*, 1952, 4, 26.
2. —, *Indian Patent*, No. 41177.
3. —, *Ibid.*, 41178. No.
4. Mashino, M. and Shishido, T., *J. Soc. Chem. Ind., Japan*, 1930, 33, 421; *cf. C. A.*, 24, 3025 and 25, 746.
5. Chibnalls, A. C. *et al.*, *Bio. Chem. J.*, 1940, 34, 285-300.
6. Block, R. N. and Bolling, D., *Amino Acid Composition of Proteins and Foods*, 1950, Charles C. Thomas Springfield, Illinois, U.S.A. 1950, p. 243.

C-METHYLATION OF ω -METHOXY-PHLORACETOPHENONE

DURING the course of synthetic work in progress, a considerable quantity of C-methyl derivative of ω -methoxy-phloracetophenone (I) was required. This has been achieved by the nuclear methylation of ω -methoxy-phloracetophenone (I) using the method of Curd and Robertson.¹ 2-Hydroxy- ω :4:6-trimethoxy-3-methylacetophenone (II, R = CH₃) is a colourless crystalline solid and gives a prominent colour with alcoholic ferric chloride and a blue colour with 2:6-dibromoquinonechlorimide, the latter reaction indicating that the position para to the free hydroxyl is unsubstituted. The corresponding O-dimethyl ether (II, R = H) is also obtained in small quantity as a by-product.



(R = CH₃ or H)

ω -Methoxy-phloracetophenone (2 g.) was gently boiled under reflux with methyl iodide (8 ml.) and anhydrous potassium carbonate (14 g.) in acetone solution (50 ml.) for about 3 hours. The potassium salts were removed by filtration and slow evaporation of the acetone solvent deposited slightly reddish-brown square pyramids and rectangular plates. Purification was carried out by dissolution in ether and washing with water wherein the coloured impurities were insoluble. Removal of the solvent left a residue which appeared as colourless long rectangular plates tapering at the ends. Crystallisation from methyl alcohol gave the product as long colourless needles slightly bulging at the centre, m.p. 141-42° C. Yield: 0.5 g. (Found: C, 55.9; H, 7.2; loss on drying at 110° C. for 2 hours in high vacuo, 6.9; C₁₂H₁₆O₅, H₂O requires C, 55.8; H, 7.0 and loss on drying 7.0 per cent. Found in sample dried at 110°, C, 60.3; H, 6.9; -OCH₃, 39.0;