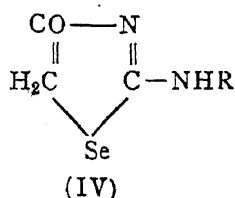
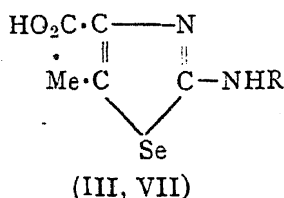
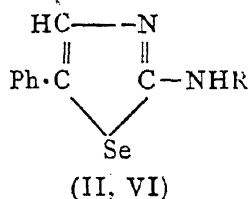
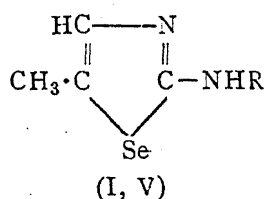


### SYNTHESIS OF SULPHANILAMIDO SELENAZOLES

*p*-ACETAMINOBENZENE-SULPHOCHLORIDE has been made to react with (i) 2-amino-4-methylselenazole, (ii) 2-amino-4-phenyl-selenazole, (iii) 2-amino-4-methyl-5-carboxy-selenazole and seleno-hydantoin, to give 2-(*p*-acetamino-benzene-sulphonyl)-amino-4-methyl selenazole (I), m.p. 228-29°; 2-(*p*-acetamino-benzene-sulphonyl)-amino-4-phenyl selenazole- (II), m.p. 238-239°; 2-(*p*-acetamino-benzene-sulphonyl)-amino-4-methyl-5-carboxy-selenazole (III), m.p. 238-39°; and 2-(*p*-acetyl-amino-benzene-sulphonyl)-amino-seleno-hydantoin (IV), m.p. 263-64° (decomp.); respectively. The acetyl-compounds (I), (II) and (III) gave 2-(*p*-amino-benzene-sulphonyl)-amino-4-methyl-selenazole (V), m.p. 222-23°; 2-(*p*-amino-benzene-sulphonyl)-amino-4-phenyl-selenazole (VI), m.p. 231-32°; and 2-(*p*-amino-benzene-sulphonyl)-amino-4-methyl-selenazole-5-carboxylic acid (VII), m.p. 231-32°. Their toxicity and antibacterial properties are being studied.



[I-IV, R = -SO<sub>2</sub>·C<sub>6</sub>H<sub>4</sub>-NHAc]  
[V-VII, R = -SO<sub>2</sub>·C<sub>6</sub>H<sub>4</sub>-NH<sub>2</sub>]

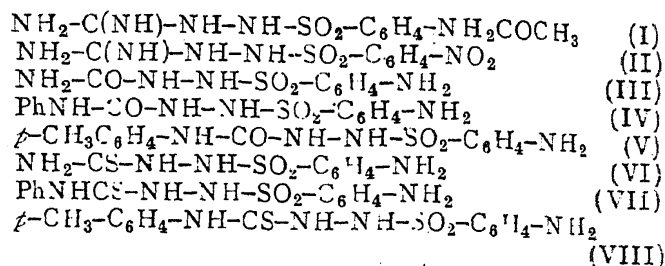
Organic Chemistry Section,  
Dept. of Pure & Applied Chemistry,  
Indian Institute of Science,  
Bangalore,  
March 12, 1943.

P. C. GUHA.  
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### SYNTHESIS OF SULPHANILAMIDE COMPOUNDS CONTAINING SEMI- CARBAZIDE-, THIOSEMICARBAZIDE- AND AMINO-GUANIDINE-RESIDUES

SULPHANILAMIDE compounds with urea, thio-urea and guanidine have already been made. Alles<sup>1</sup> has made the interesting observation that aminoguanidine shows much less toxicity than guanidine. Sulphanilamide compounds of the amino-derivatives of urea, thiourea and guanidine or, in other words, of semicarbazides, thio-semicarbazides and aminoguanidines, have now been prepared.

The following compounds as also acetyl derivatives of III-VIII have been made:—



The pharmacological studies of these compounds are in progress.

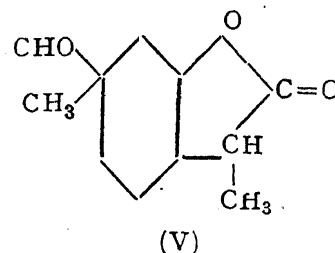
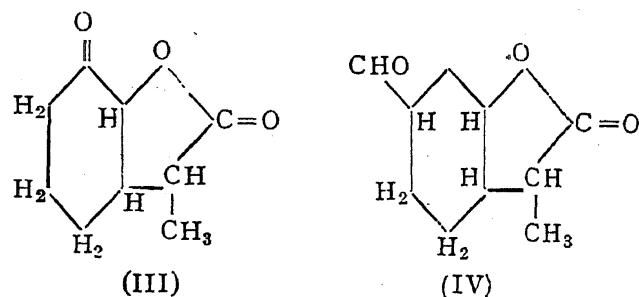
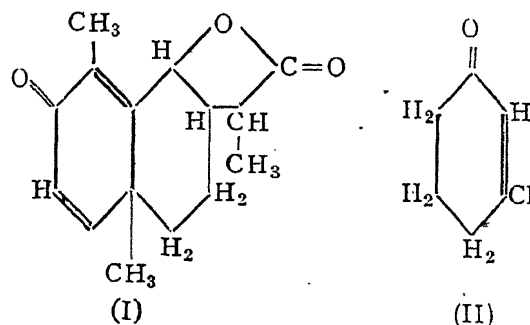
Organic Chemistry Section,  
Dept. of Pure & Applied Chemistry,  
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March 12, 1943.

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K. L. HANDA.

1. *J. Pharm. Soc.*, 1926, **28**, 251.

### SYNTHESIS OF SANTONIN

SANTONIN, the classical remedy for the treatment of ascaris or round-worms and oxyuris, is the chief constituent of the leaves of *Artemisia maritima* Linn. The chemical investigation of santonin has been carried out by Clemo, Haworth and Walton.\* We have now achieved the synthesis of santonin by the series of reactions outlined below.



3-Chloro-Δ<sup>2</sup>-cyclohexen-1-one (II) on treatment with the Sodium Derivative of methyl malonic ester followed by hydrolysis with 30 per cent. sulphuric acid in dilute alcohol gave the keto lactone (III), which on condensation with ethyl formate gave (IV). Methylation of