1,6-Diacetoxyphenazine—Acetylation of 1,6-dihydroxyphenazine with acetic anhydride in pyridine gave 1,6-diacetoxyphenazine. Recrystallization from alcohol gave pale yellow needles, m.p. 232°. *Anal.* Calcd. for $C_{12}H_6O_2N_2(COCH_3)_2$: N, 9.5. Found: N, 9.48.

The following table shows the comparison of the melting points given by different authors.

	Clemo & Daglish m.p. °C*	Pachter & Kloetzel m.p. °C*	Yosioka & Kidani m.p. °C*
1,6-Dimethoxyphenazine	247	246~247	251
1,6-Dihydroxyphenazine	274	274~275	274
1,6-Diacetoxyphenazine	234	—	232

* m.p. uncorrected

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Usnic acid.

In the previous paper¹⁾, the writer reported that ethyl acetousnetate, the ethanolytic product of usnic acid, is best represented by structure (I) rather than (I') which had been proposed by Asahina and Yanagita²⁾. Support for structure (I) for ethyl acetousnetate is afforded by the fact that its diacetate (II) possesses all the properties expected of an enol, whereas the diacetate (IV) of its C-methyl derivative (III) shows no sign of enolic properties. It was also reported¹⁾ that the hydrolysis of C-methyl compound (III) with 20% aqueous potassium hydroxide gave C-methylacetousnetol (V) together with gelatinous material of acidic property, but the expected acid (VI) could not be isolated from the reaction mixture.

Later, Shibata, Hiizumi and Takahashi³⁾ obtained usnetic acid together with C-methylacetousnetol from the reaction of C-methylacetousnetic acid ester with 50% aqueous potassium hydroxide. On the basis of this result, these investigators put forward structure (V') for C-methylacetousnetol and supported structure (I') for ethyl acetousnetate. However they could not provide any satisfactory explanation of the non-enolic character of ethyl C-methylacetousnetate diacetate, structure (IV') which possesses a typical, enolisible hydrogen atom.

If ethyl acetousnetate had structure (I'), it would be expected that, as in the case of acetousnetate (I')⁴⁾, its C-methyl derivative (III') is readily decomposed to usnetic acid (VI') with 20% aqueous potassium hydroxide. This proved not to be the case¹⁾. The formation of usnetic acid (VI') on treatment of ethyl methylacetousnetate with 50% aqueous potassium hydroxide can be explained by assuming the secondary cleavage of methyl group in the side chain of the expected unstable product (VI) which, with 20% aqueous potassium hydroxide, polymerizes to a gelatinous material. The high reactivity of the methylene group of phenylacetic acid is well-known, and on purely theoretical

1) This Journal **72**, 773 (1952).

2) Y. Asahina, M. Yanagita: *Ber.*, **72**, 1140 (1939).

3) S. Shibata, Y. Hiizumi, K. Takahashi: Paper read before the Monthly Meeting of the Pharmaceutical Society of Japan, Tokyo, April 19, 1952; This Journal **72**, 825 (1952).

4) Y. Asahina, M. Yanagita: *Ber.*, **70**, 2268 (1937).

grounds, the methylene group of coumaronylacetic acid should be even more labile.

Though these considerations provide evidences in favor of structure (I) for ethyl acetousnetate, decision between two structures (I and I') awaits further accumulation of data.

- I $R = R' = H$
 II $R = COCH_3$ $R' = H$
 III $R = H$ $R' = CH_3$
 IV $R = COCH_3$ $R' = CH_3$

- I' $R = R' = H$
 II' $R = COCH_3$ $R' = H$
 III' $R = H$ $R' = CH_3$
 IV' $R = COCH_3$ $R' = CH_3$

- V $R = CH_3$, $R' = H$
 V' $R = H$, $R' = CH_3$

- VI $R = CH_3$
 VI' $R' = H$

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