

Studies on Cow's Urine. V. Determination by Gas-liquid Chromatography of an Acidic Part Obtained from Cow's Urine (Supplement)*¹

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In the recent literature studies of aromatic acids in human urine¹⁻³⁾ and amino acids in healthy rabbit urine^{4,5)} have been reported.

In a previous paper⁶⁾ we examined, by gas-liquid chromatography, phenolic and acidic parts obtained from the urine of Nihon-ushi (*Bos taurus* Linnaeus) and presented a new metabolic pathway of phenylalanine and its derivatives.

In the present paper, seven components were newly identified in addition to nineteen compounds detected previously;⁶⁾ all are shown in Table 1.

The peak numbers are the same as those of Table 1 in a previous report.⁶⁾ Peak No. 25 was previously reported as unidentified, and No. 26,

as 3-indoleacetic acid (?); however, the former is corrected to 3-indoleacetic acid, and the latter is here regarded as unidentified.

It is noteworthy that a small amount of 3-indoleacetic acid and β -3-indolepropionic acid are newly detected in the urine. They may be supposed to be degradation products of tryptophan *in vivo*.

Experimental

The gas-chromatographic analysis was performed as has been previously described.⁶⁾ In this experiment, 25% SE-60, coated on 80-100 mesh Diasolid L, was also used as the polar stationary phase in order to effect a good separation.

TABLE I. AROMATIC ACIDS ADDITIONALLY DETECTED IN COW'S URINE

Peak No.	Rt.	Component	%
4	3.5	<i>o</i> -Hydroxyphenylacetic acid	trace
6 ₁	5.0	<i>m</i> -Methoxybenzoic acid	trace
7	5.2	<i>o</i> -Methoxyphenylacetic acid	0.65
16 ₁	13.1	3-Methoxy-4-hydroxyphenylacetic acid	trace
19	18.5	β -3-Methoxy-4-hydroxyphenylpropionic acid	0.35
25	32.4	3-Indoleacetic acid	0.15
26	38.9	Unidentified	0.1
27	48.5	β -3-Indolepropionic acid	0.15

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