

tetraethylammonium hydroxide (TEAH) in isopropanol (Fig. 1, curves 1-4). The calculations of the amounts of the components in the mixtures were based on the fact that  $V$  (adenosine) =  $V_2 - V_1$ , and  $V$  (guanosine) =  $V_1$ .

Below, we give the results of a determination of several mixtures of adenosine and guanosine by the potentiometric method ( $n = 7$ ):

	Amt. taken, %	Amt. found, %
Adenosine	{ 96.4	96.1 ± 0.8
	{ 43.7	43.2 ± 0.8
	{ 5.2	5.8 ± 1.0
Guanosine	{ 3.6	3.3 ± 0.6
	{ 56.3	55.7 ± 0.7
	{ 94.8	94.3 ± 0.6

#### LITERATURE CITED

1. D. H. Hayes, J. Chem. Soc., 1184 (1960).
2. K. Dimroth, H. Witzel, W. Hülsen, and H. Mirbach, Ann. Chem., 620, 94 (1959).
3. S. D. Ehrlich and J. P. Thiery, Biochim. Biophys. Acta, 246, 161 (1970).
4. D. B. Lakings and C. W. Cehrke, Clin. Chem., 18, 810 (1972).

#### THE ISOLATION OF SUBSTANCES FROM THE LEAVES OF *Persica vulgaris*

A. A. Sadykov

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We have previously [1] reported the isolation of flavonoids from the leaves of *Persica vulgaris* Mill. The present paper gives the results of the isolation and study of certain substances from the leaves of *P. vulgaris* growing in the Uzbek SSR.

The material collected was extracted with chloroform. After the solvent had been distilled off, the residue was treated with acetone, giving acetone-insoluble (A) and acetone-soluble (B) fractions [2]. Fraction A was repeatedly extracted with petroleum ether (with heating). The petroleum ether extract was passed through a column filled with alumina. The column was washed successively with benzene, ether, and methanol. The petroleum ether eluate, after the distillation of the solvent and fractional recrystallization from acetone, yielded a number of fractions of crystalline substances which, on the basis of their GLC characteristics, were identified as high-molecular-weight hydrocarbons, the total amounts of each of them being: nonacosane 51.6; hentriacontane 21.4; heptacosane 13.8; pentacosane 4.5; triacontane 3.5; octacosane 1.7; dotriacontane 1.5; tritriacontane 1.2; and hexacosane 0.7.

The benzene and methanolic eluates yielded crystalline substances with mp 76-77, 77-78, 80-81, and 84-85°C, which formed acetyl derivatives with mp 59-60, 62-64, 66-67, and 69-71°C, respectively.

From the melting points of the substances themselves and their acetyl derivatives, the compounds isolated were identified as high-molecular-weight alcohols: tetracosanol, hexacosanol, octacosanol, and triacontanol.

From the unsaponifiable fraction after separation on a column of alumina we isolated a crystalline substance with mp 137-138°C which was identified on the basis of its own physicochemical constants and those of its derivatives (acetyl with mp 129-130°C and benzoyl with mp 145-146°C), and also from its PMR and IR spectra, as  $\beta$ -sitosterol. A mixture with the  $\beta$ -sitosterol isolated from the cotton plant [3] showed their identity.

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Division of Bioorganic Chemistry, Academy of Sciences of the Uzbek SSR, Tashkent.  
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#### LITERATURE CITED

1. A. A. Sadykov, Kh. I. Isaev, A. I. Ismailov, *Khim. Prirodn. Soedin.*, 94 (1975).
2. A. S. Sadykov, Kh. I. Isaev, and A. I. Ismailov, *Uzb. Khim. Zh.*, No. 1, 53 (1963).
3. Kh. I. Isaev, A. I. Ismailov, and A. S. Sadykov, *Scientific Papers of Tashkent State University*, No. 286, *Chemistry of Plant Substances [in Russian]*, Vol. II, Tashkent (1966), p. 33.