

Fresh comminuted roots, stems, and leaves of *Plumbagella micrantha* (Led.) Spach (family Plumbaginaceae) plants, which were introduced into the area of the southern shores of the Crimea by Yu. A. Luks, were extracted with petroleum ether (fraction boiling at 45-65°C) by steeping at room temperature.

The extracts were investigated chromatographically on paper impregnated with a 5% solution of silicone oil in cyclohexane in the solvent system ethanol-water-acetic acid (75:22.5:2.5). The spot on the chromatogram coincided completely with that of plumbagin isolated from *Ceratostigma plumbaginoides* Bunge [1], both in  $R_f$  value and in color in a neutral medium and after treatment with a 1% solution of NaOH in methanol. The substance was isolated from the petroleum ether extracts and purified by the same method as we used for the plumbagin from *C. plumbaginoides* [1]. The product we crystallized from 60% ethanol was orange-yellow and had the composition  $C_{11}H_8O_3$ , mp 75-76°C. A mixture with the plumbagin from *C. plumbaginoides* caused no change in the melting point. The IR spectrum coincided completely with that of plumbagin.

The substance with the composition  $C_{11}H_8O_3$  from the roots, stems, and leaves of *Plumbagella micrantha* (Led.) Spach is plumbagin (5-hydroxy-2-methyl-1,4-naphthoquinone). The amount of it in the plant (in the middle of July) determined by a colorimetric method [2] was 0.52% and 0.46% of the fresh weight of the roots and of the epigeal part, respectively.

## LITERATURE CITED

1. L. R. Shcherbanovskii and G. I. Nilov, *Rast. Res.*, 5, No. 4, 581 (1969).
2. L. R. Shcherbanovskii, *UKr. Bot., Zh.*, 28, No. 1, 18 (1971).

---

Nikitskii Botanical Garden. Translated from *Khimiya Prirodnykh Soedinenii*, No. 4, pp. 514, July-August, 1974. Original article submitted February 1, 1974.

©1976 Plenum Publishing Corporation, 227 West 17th Street, New York, N.Y. 10011. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission of the publisher. A copy of this article is available from the publisher for \$15.00.