

**ANACARDIC ACIDS FROM THE SURFACE OF *COMARUM SALESOVIANUM* (ROSACEAE) FLOWERS AND LEAVES**

© T. V. Bukreyeva, A. L. Shavarda

Komarov Botanical Institute of the Russian Academy of Sciences, St. Petersburg, Russia

\* E-mail: shavarda@binran.ru

REFERENCES

1. Juzepczuk S. 1941. Sabelnik – *Comarum* L. In: Flora of the USSR. Moscow; Leningrad. Vol. 10. P. 73–78.
2. Tril V. M., 1975. Ispolzovaniye lapchatok yugo-vostochnogo Altaya [Usage of *Potentilla* species from the southeastern Altai]. In: Okhrana, ratsionaloye ispolzovaniye i vosproizvodstvo prirodnikh resursov Altayskogo kraya. Barnaul. P. 259–262.
3. Tril V. M., Shishkina E. S. 1981. Biologicheskaya aktivnost predstaviteley roda *Potentilla* L. i perspektivy ikh ispolzovaniya v narodnom khozyaystve [Biological activity of the genus *Potentilla* and its perspectives of usage]. In: Resursy i introduktsiya poleznykh rasteniy Sibiri. Novosibirsk. P. 147–154.
4. Odontuya G., Banzragchgarav O., Murata T., Batkhuu J., Sasaki K., Yoshizaki F. 2015. Antibacterially active phenolic lipid derivatives from *Comarum salesovianum* (Steph.) Aschers. et Gr. — Phytochemistry Letters. 13: 360–364. <http://doi.org/10.1016/j.phytol.2015.07.020>
5. Rubinchik M. A., 1972. Trikhomonostaticheskiye svoystva vysshikh rasteniy [Trichomonastatic features of vascular plants]. In: Fitontsidy. Kiev. P. 128–132.
6. Rubinchik M. A., Vichkanova S. A., Schroeter A. I. 1971. Antiamoebal properties of higher plants. — Rastitelnye resursy. 7(1): 80–85.
7. Rastitelnye resursy Rossii: Dikorastushchie tsvetkovye rasteniya, ikh komponentnyy sostav i biologicheskaya aktivnost. 2009. T. 2. Semeystva Actinidiaceae–Malvaceae, Euphorbiaceae–Haloragaceae [Plant Resources of Russia: Wild flowering plants and their component composition and biological activity. Vol. 2. Family Actinidiaceae–Malvaceae, Euphorbiaceae–Haloragaceae.]. St. Petersburg; Moscow. 513 p. (In Russian)
8. Itokawa H., Totsuka N., Nakahara K., Takeya K., Lepoittevin J.-P., Asakawa Y. 1987. Antitumor principles from *Ginkgo biloba* L. — Chem. Pharm. Bull. 35(7): 3016–3020.

9. Durrani A. A., Tyman J. H. P. 1979. Long-chain Phenols. Part 14. Synthesis of 6-n-alkylsalicylic acids and 3-n-alkylphenols. — J. Chem. Soc., Perkin Trans. 1, 0: 2069–2078. doi: 10.1039/P19790002069
10. Bohlmann F., Kleine K.-M. 1962. Polyacetylenverbindungen, XXXVI. Über neue Polyintypen aus *Chrysanthemum frutescens* L. — Chem. Ber. 95(3): 602. doi: 10.1002/cber.19620950303
11. Walters D. S., Craig R., Mumma R. O. 1990. Fatty acid incorporation in the biosynthesis of anacardic acids of geraniums. — Phytochemistry. 29(6): 1815–1822. [https://doi.org/10.1016/0031-9422\(90\)85022-8](https://doi.org/10.1016/0031-9422(90)85022-8)
12. Horper W., Marner F.-J. 1996. Biosynthesis of primin and miconidin and its derivatives. — Phytochemistry. 41(2): 451–456. [https://doi.org/10.1016/0031-9422\(95\)00590-0](https://doi.org/10.1016/0031-9422(95)00590-0)
13. Tyman J. H. P., Jacobs N. 1971. The composition of the unsaturated phenolic components of anacardic acid. — J. Chromatography. 54(1): 83–90. [https://doi.org/10.1016/S0021-9673\(01\)80248-X](https://doi.org/10.1016/S0021-9673(01)80248-X)
14. Birch A. J., Massy-Westropp R. A., Moyer C. J. 1955. Studies in relation to biosynthesis. VII. 2-Hydroxy-6-methylbenzoic acid in *Penicillium griseofulvum* Dierckx. — Austr. J. Chem. 8(4): 539–544. <https://doi.org/10.1071/CH9550539>
15. Gellerman J. L., Schlenk H. Methods for isolation and determination of anacardic acids. — Anal. Chem. 40(4): 739–743. doi: 10.1021/ac60260a042
16. Morais S. M., Silva K. A., Araujo H., Vieira I. G., Alves D. R., Fontenelle R. O., Silva A. M. 2017. Anacardic acid constituents from cashew nut shell liquid: NMR characterization and the effect of unsaturation on its biological activities. — Pharmaceuticals (Basel). 10(1). pii: E31. doi: 10.3390/ph10010031