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THE POLYPHENOLIC COMPOUNDS OF *Epilobium hirsutum*. II

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Continuing an investigation of the polyphenolic compounds of *Epilobium hirsutum* [1], we have isolated the following flavonoid aglycones and glycosides: (I) with mp 275-277°C (from methanol); (II) with mp 307-310°C (from aqueous methanol); (III) with mp 357-360°C (from methanol); (IV) with mp 236-238°C (from aqueous methanol), $[\alpha]_D^{22}$ −52° (c 0.4; methanol); and (V) with mp 197-200°C (from aqueous methanol), $[\alpha]_D^{20}$ −19.8° (c 0.3; DMFA).

Color reactions and bathochromic shifts with complex-forming and ionizing reagents showed that (I) contained free hydroxy groups in positions 3, 4', 5, and 7, II in positions 3, 3', 4', 5, and 7, and III in positions 3, 3', 4', 5, 5', and 7.

In the products of alkaline degradation, by paper chromatography we found phlorogucinol (in all three substances) and p-hydroxybenzoic, protocatechuic, and gallic acids. The results obtained, and also a chromatographic comparison with authentic samples enabled the substances to be identified as kaempferol (I), quercetin (II), and myricetin (III).

On the basis of the results of UV spectroscopy with diagnostic reagents, the products of alkaline and enzymatic hydrolysis, and molecular rotation [2], it was established that substance (IV) was quercetin 3-O-β-D-glucopyranoside and substance (V) was myricetin rutinoside.

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