

## EUPHORBIACEAE

BERGENIN IN *FLUEGGEA MICROCARPA*

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*Plant.* *Flueggea microcarpa* Bl *Source* In Kashmir ascending up to 5000 ft *Uses* Medicinal <sup>1</sup> *Previous work.* None

*Leaves.* Extracted with ethanol, concentrated and gummy solid crystallized from acetone m.p. 130–135°. *Bergenin.*  $C_{14}H_{16}O_9 \cdot H_2O$  (m.p. 130–135°) (hydrate), m.p., mixed m.p. 236–238° (anhydrous) (lit m.p. 238°),<sup>2</sup> *m/e* 328  $M^+$  (40%); other major peaks at 208 (100%), 180 (12%), 179 (14%), 151 (12%) and 61 (20%) Found. C, 49.83%, H, 5.06% required for  $C_{14}H_{16}O_9$  C, 49.8% H, 5.1%, Pentaacetylbergenin  $C_{14}H_{11}O_4 (OAc)_5$  (m.p. 195–196°) (lit m.p. 196–198°), Found C, 53.3%, H, 4.84%, required for  $C_{14}H_{11}O_4 (OAc)_5$  C, 53.5%, H, 4.9% Di-*O*-methylbergenin  $C_{16}H_{20}O_9$  (m.p. 194–198°) (lit m.p. 194°)<sup>2</sup> Di-*O*-methyl acetate  $C_{19}H_{26}O_9$  (m.p. 132°) (lit m.p. 130°)<sup>2,3</sup>

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<sup>1</sup> CHOPRA and NAYYAR, *Glossary of Indian Medicinal Plants*, p 199, CSIR, New Delhi (1956)

<sup>2</sup> B M DEAN and J WALKER, *J Chem Ind* 1696 (1958)

<sup>3</sup> J EVELYN HAY and L J HAYNES, *J Chem Soc* 2231 (1958)

*Key Word Index*—*Flueggea microcarpa*, Euphorbiaceae, isocoumarin, bergenin

## LABIATAE

FLAVONOIDS OF THE LEAVES OF *MENTHA SPICATA* AND *ANISOCHILUS CARNOSUS*

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*Plant* *Mentha spicata* L <sup>1</sup> *Uses* Medicinal, nutritional <sup>1</sup> *Previous work* Flavonoids of sister species <sup>2</sup>

<sup>1</sup> *Wealth of India, Raw Materials*, Vol VI, p 344, CSIR, New Delhi (1962)

<sup>2</sup> S HATTORI, in *The Chemistry of Flavonoid Compounds* (edited by T A GEISSMAN), p 325, Pergamon Press, Oxford (1962)