Phytochemistry, 1969, Vol. 8, pp. 331 to 332. Pergamon Press. Printed in England

SHORT COMMUNICATION

AN EXAMINATION OF THE EUPHORBIACEAE OF HONG KONG—V*

W. H. HUI, T. L. FUNG and K. K. NG

Department of Chemistry, University of Hong Kong, Hong Kong

(*Received* 11 *July* 1968)

Plant. *Sapium sebiferum* Roxb. (Chinese tallow tree).

Uses. In medicine, for dyeing and as fats.[1,2]

Previous work.[1–3] Bark,[4] fruits,[5] leaves,[6–9] nuts,[10,11] root bark,[12,13] seeds,[14–20] wood.[21]

Leaves. (Extrctd light petroleum, chromatographed—alumina):

Friedelin $C_{30}H_{50}O$ (m.p., mxd. m.p., $[\alpha]_D$, i.r.): from light petroleum fractions.

A higher aliphatic alcohol[22] (m.p., mxd. m.p. and i.r. of alcohol and acetate): from light petroleum: benzene (9:3) fractions.

β-Sitosterol $C_{29}H_{50}O$ (m.p., mxd. m.p. and i.r. of alcohol and 3,5-dinitrobenzoate): from light petroleum: benzene (3:2) fractions.

(Extractd EtOH, evaporated to small volume, light brown residue, recrystallized from pyridine):

* Part III, *Phytochem.* **7**, 2069 (1968).

1 B. E. REED, *Chinese Medicinal Plants from the Pen T'sao Kang Mu* (3rd Ed.), p. 97, Peking Natural History Bulletin, China, (1936).
2 C. PEI and T. Y. CHOU, *Chung Kuo Yao Yung Chih Wu Chih*, Vol. II, p. 89, K'o Hsüeh Publishers, Peking, China (1951).
3 C. WEHMER, *Die Pflanzenstoffe* (2nd Ed.), Vol. II, p. 693, Gustav Fischer, Germany (1931).
4 H. N. KHASTGIR, B. P. PRADHAN, A. M. DUFFIELD and L. J. DURHAM, *Chem. Commun.* 1217 (1967).
5 W. M. POTTS and D. S. BOLLEY, *Oil and Soap* **23**, 316 (1946).
6 S. H. HSU, H. L. CHANG and Y. W. TIEN, *J. Chem. Engng (China)* **7**, 26 (1940).
7 M. SHIMOKORIYAMA, *Acta Phytochim. (Japan)* **15**, 63 (1949); and *J. Chem. Soc. Japan* **68**, 1 (1947).
8 M. SHIRAKAWA and K. SATO, *Seikatsu Kagaku* **3**, 101 (1956).
9 O. HIRAYAMA, *J. Biochem. (Tokyo)* **57**, (5) 581 (1965).
10 B. R. HOLLAND and W. W. MEINKE, *J. Am. Oil Chem. Soc.* **25**, 418 (1948).
11 W. W. MEINKE, B. R. HOLLAND and L. R. RICHARDSON, *Arch. Biochem.* **22**, 339 (1949).
12 C. T. LIU and J. Y. LOH, *Hua Hsüeh Hsüeh Pao* **23**, 259 (1957).
13 Y. L. CHU, C. L. HSU and P. S. LIU, *Yao Hsüeh Hsüeh Pao* **6**, (1) 51 (1958).
14 W. M. POTTS, *Paint, Oil Chem. Rev.* **109**, (25) 16, 18 (1946).
15 S. BOLLEY and R. H. MCCORNACK, *J. Am. Oil Chem. Soc.* **27**, 84 (1950).
16 S. A. NARANG and SADGOPAL, *J. Am. Oil Chem. Soc.* **35**, 68 (1957).
17 O. HIRAYAMA, *Nippon Nogei Kagaku Kaishi* **35**, 437 (1961).
18 R. MAIER and R. T. HOLMAN, *Biochem.* **3** (2) 270 (1964).
19 O. HIRAYAMA and S. OHAMA, *Agr. Biol. Chem. (Tokyo)* **29** (2), 111 (1965).
20 H. W. SPRECHER, R. MAIER, M. BARBER and R. T. HOLMAN, *Biochem.* **4** (9) 1856 (1965).
21 M. TUTIYA and Y. KATO, *J. Agr. Chem. Soc. Japan* **16**, 224 (1940).
22 W. H. HUI, S. K. SZETO and (in part) C. W. YEE, *Phytochem.* **6**, 1299 (1967).

Ellagic acid $C_{14}H_6O_8$ (elemental analysis, i.r., m.p., and m.p., mxd. m.p., i.r. of tetraacetate and tetramethyl ether).

Stems. (Extractd light petroleum, chromatographed—alumina):

Moretenone $C_{30}H_{48}O$ (m.p., mxd. m.p., $[\alpha]_D$, i.r.): from light petroleum:benzene (9:1) fractions.

Moretenol $C_{30}H_{50}O$ (m.p., mxd. m.p., $[\alpha]_D$, and i.r. of alcohol and acetate): from light petroleum:benzene (1:1) fractions.

Sterol mixture from light petroleum:benzene (1:4) fractions, separated into *Stigmasterol* $C_{29}H_{48}O$ (m.p., mxd. m.p. of acetate tetrabromide; m.p., mxd. m.p., $[\alpha]_D$, and i.r. of acetate and alcohol) and *β-Sitosterol* $C_{29}H_{50}O$ (m.p., mxd. m.p., $[\alpha]_D$, and i.r. of acetate and alcohol).

(Extractd EtOH, evaporated to small volume, light brown residue, recrystallized from pyridine):

Ellagic acid $C_{14}H_6O_8$ as for leaves.

Acknowledgements—The authors thank Mr. H. C. Tang, Government Herbarium, Hong Kong, for identification of plant material, and the Committee on Higher Degrees and Research Grants, University of Hong Kong, for financial assistance.