

SHORT COMMUNICATION

CONSTITUENTS OF FRUIT AND SEED OF *MIMUSOPS ELENGI*

G. MISRA and C. R. MITRA

Utilization Research Laboratory, National Botanic Gardens Lucknow, India

(Received 28 June 1966)

Plant. *Mimusops elengi*—Sapotaceae.

Uses. Medicinal.^{1,2}

Previous work. Seed kernel.^{3,4,5} On sister species *M. hexandra*.^{6,7}

Mesocarp. (Extracted EtOH, saponification 5% EtOH); *Quercitol* C₆H₁₂O₅ (m.p. mxd m.p. (α)_D; m.p. and (α)_D of benzoate); *Ursolic acid* C₃₀H₄₈O₃ m.p. (α)_D of acid, methyl ester, acetate, methyl ester acetate; reduction to uvol:⁸ m.p. and (α), (α)_D of acetate—NOTE: m.p. of uvol diacetate found 210–215° instead of 159°.^{9,10}

New Cpd. Triterpene alcohol m.p. 236–237°; (α)_D^{35,5} + 24°; ν_{max} 3333 cm⁻¹ (Found: C, 81.94; H, 11.79 C₃₀H₅₀O₂ requires: C, 81.44; H, 11.31 %) from the neutral fraction on chromatography (alumina; hexane) and crystallization (EtOH). *Glucose* (paper co-chromatography; m.p. and mxd m.p. of osazone).

No amino acids; eleven common amino-acids after hydrolysis.

Testa (Extr. EtOH). *Quercitol*; *Dihydroquercetin* C₁₅H₁₂O₇ (0.8 % of the testa; extracted by ethyl acetate from the alcoholic extract; m.p. mxd m.p. u.v. i.r.);¹¹ oxidation with iodine to quercetin, m.p. and mxd m.p.; reduction to eriodictyol, m.p. and mxd m.p.); *Quercetin* C₁₅H₁₀O₇ (m.p. and mxd m.p.; m.p. and i.r. of penta-acetate); β-D-Glucoside of β-sitosterol (m.p. mxd m.p.).

Kernel (Extr. EtOH). β-D-Glucoside of β-sitosterol C₃₅H₆₀O₆ (m.p. (α)_D; m.p. of tetra-acetate;¹² acid hydrolysis to glucose and β-sitosterol, m.p. i.r.); *Quercitol* (m.p. mxd m.p.). After saponification: α-spinosterol (m.p. mxd m.p. (α)_D¹³ i.r.⁶).

Acknowledgement—Authors' thanks are due to Mr. J. Saran for micro-analyses and to Dr. L. B. Singh, Director, National Botanic Gardens for his interest in the work.

¹ W. DYMCK, *Pharmacographia Indica*, Vol. 2, pp. 362–365. Kegan Paul, Trench, Trübner, London (1891).

² *The Wealth of India, Raw Materials*, Vol. 6, pp. 383–384. CSIR, New Delhi, India (1962).

³ M. G. RAU and J. L. SIMONSEN, *Indian Forest Records* 9, 10 (1922); A. R. S. KARTHA and K. N. MENON, *Proc. Indian Acad. Sci.* 19A, 1 (1944); *Chem. Abstr.* 39, 207 (1945).

⁴ B. J. HEYWOOD, G. A. R. KON and L. L. WARE, *J. Chem. Soc.* 1124 (1939); B. J. HEYWOOD and G. A. R. KON, *J. Chem. Soc.* 713 (1940); *Chem. Abstr.* 34, 6637 (1940).

⁵ A. W. VAN DER HAAR, *Rec. trav. chim.* 49, 1155 (1929); *Chem. Abstr.* 24, 857 (1930).

⁶ C. R. MITRA and G. MISRA, *Phytochem.* 4, 345 (1965).

⁷ G. MISRA and C. R. MITRA, *Phytochem.* 5, 535 (1966).

⁸ L. RUZICKA and A. MARKER, *Helv. Chim. Acta* 23, 144 (1940).

⁹ M. STEINER and H. HOLTZEM, *Modern Methods of Plant Analysis* (Edited by K. PAECH and M. V. TRACEY), Vol. 3, pp. 121–122. Springer-Verlag, Berlin (1965).

¹⁰ J. SIMONSEN and W. C. J. ROSS, *Terpenes*, Vol. 4, pp. 168–169, The University Press, Cambridge (1957).

¹¹ Y. C. AWASTHI and C. R. MITRA, *J. Org. Chem.* 27, 2636 (1962).

¹² S. K. NIGAM, C. R. MITRA and K. N. KAUL, *Indian J. Appl. Chem.* 26, 174 (1963).

¹³ L. F. FIESER and M. FIESER, *Steroids*, p. 352. Chapman & Hall, London (1959).