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MONILIACEAE

ISOLATION OF BIKAVERIN FROM *MYCOGONE JAAPII*

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Key Word Index—*Mycogone jaapii*; Moniliaceae; bikaverin; mycogonin; benzoxanthone.

Plant. *Mycogone jaapii* Lindau (Moniliaceae) isolated from the pileus of *Inocybe rimosa*.[1] *Previous work*. Isolation and characterization of bikaverin from *Fusarium oxysporum*, *F. oxysporum* f. sp. *lycopersici* and *Gibberella fujikuroi*.[2-4] Isolation and characterization of a red pigment mycogonin from *Mycogone jaapii*.[5,6]

Present work. *Mycogone jaapii* was grown at 27° on the medium containing peptone (0·1 g), glucose (3 g), malt extract (100 ml, from 5 g of ground malt), agar (2·5 g) for 21 days. The mycelium which was bluish purple at the end of incubation period was collected and dipped in dil. HCl (1:3) for a few minutes, when its colour changed to reddish brown, then washed thoroughly with water and air-dried. The powdered mycelium was extracted with boiling benzene. The residue after evaporation of benzene was triturated with ligroin to leave a red pigment which was tentatively named mycogonin.[5] Recrystallization of crude mycogonin from acetone or acetic acid gave about 15–20 mg of red needles, m.p. 305–315° (dec.), per g of dry mycelium. Found: C, 62·5; H, 3·6%; m/e, 382·069 ± 0·005. $C_{20}H_{14}O_8$ requires: C, 62·8; H, 3·7% m/e, 382·069. λ_{max} (dioxane) nm (log ϵ), 253 (4·50), 272 (4·48), 509 (3·86); ν_{max} (KBr), 1665, 1615, 1585, 1455; NMR (CF_3CO_2D, δ ppm), 3·02 (*s*, 3H), 4·20 (*s*, 6H), 6·88 (*s*, 1H), 7·39 (*m*, 1H), 7·46 (*d*, 1H). Oxidation by alkaline hydrogen peroxide gave an acid, m.p. 171–172°, which was identified as everninic acid by direct comparison with authentic sample. Zinc dust distillation yielded a hydrocarbon, m.p. 208–209°, which was assumed to be 8-methyl 2,3-benzfluorene or closely related compound from its UV spectrum.[6] Found: C, 94·0; H, 6·0%; MW (Rast), 221. $C_{18}H_{14}$ requires: C, 93·9; H, 6·1%; MW, 230·3. From its physical characteristics including those of certain derivatives and degradation products, hydroxyquinonoid benzoxanthone structure similar to that of bikaverin was suggested for mycogonin. It was confirmed that mycogonin was identical with bikaverin by direct comparison (UV, IR spectra) with authentic bikaverin.

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