

## FUNGI

## HYPOCREACEAE

SKYRIN FROM *HYPOMYCES LACTIFLUORUM*

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**Key Word Index**—*Hypomyces lactifluorum*; Hypocreaceae; Fungi; skyrin.

*Plant.* *Lactarius* species parasitized by *Hypomyces lactifluorum* (Schw.) Tul. *Previous work.* None. *Uses.* Edible fungus.

*Isolation.* The air-dried and pulverized orange-red subiculum (150 g) was extracted continuously (Soxhlet) with light petrol. (b.p. 30–60°) for 48 hr and then with Et<sub>2</sub>O. Concentration of the Et<sub>2</sub>O yielded skyrin (0.73 %) (purified through the pyridine complex).<sup>1</sup> Further extraction with tetrahydrofuran gave crystalline D-mannitol (4 %).

*Identification.* *Skyrin*,<sup>2</sup> no m.p., decomposes slowly at ~300°.  $\lambda_{\text{max}}^{\text{dioxan}}$  258, 295 and 450 nm (log  $\epsilon$ : 4.69, 4.52 and 4.41), IR peaks (Nujol) at 3478, 3215 (OH), 1680, 1613 (C=O) cm<sup>-1</sup>. MS: 538 (M<sup>+</sup>), 520, 504. *Hexaacetate*, m.p. 305–306.<sup>3</sup> IR (KBr): 1785 (OAc), 1679 (C=O) cm<sup>-1</sup>. NMR (CDCl<sub>3</sub>):  $\delta$  1.87 (C6,6'-OAc), 2.38 (C3,3'-CH<sub>3</sub>), 2.44 (Cl,1'-OAc), 2.46 (C8,8'-OAc), 7.20 (C2,2'-H), 7.42 (C7,7'-H) and 7.73 (C4,4'-H).<sup>4</sup> D-Mannitol. Identical to authentic sample (m.p., m.m.p. and IR).

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<sup>1</sup> S. SHIBATA, T. MURAKAMI, O. TANAKA, G. CHIHARA and M. SUMINOTO, *Pharm. Bull. Tokyo* **3**, 274 (1955).

<sup>2</sup> R. H. THOMSON, *Naturally Occurring Quinones*, p. 423, Academic Press, London (1971); and references therein.

<sup>3</sup> B. H. HOWARD and H. RAISTRICK, *Biochem. J.* **56**, 56 (1954).

<sup>4</sup> Y. OGIHARA, N. KOBAYASHI and S. SHIBATA, *Tetrahedron Letters* 1881 (1968).