# Preparative Isolation of Anthraquinones from the Fungus *Dermocybe sanguinea* Using Enzymatic Hydrolysis by the Endogenous β-Glucosidase

Paavo H. Hynninen[a,*], Riikka Räisänen[a], Pia Elovaara[b] and Eila Nokelainen[b]

[a] Department of Chemistry, PO Box 55, University of Helsinki, FIN-00014 Helsinki, Finland. Fax: +358-9-19140466. E-mail: Paavo.Hynninen@Helsinki.FI

[b] Department of Biochemistry, PO Box 1627, University of Kuopio, FIN-70211 Kuopio, Finland

* Author for correspondence and reprint requests

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A new and simple enzymatic method was developed for preparative isolation of anthraquinone pigments from *Dermocybe sanguinea*. The endogenous β-glucosidase of the fungus was used to catalyze the hydrolysis of the *O*-glycosyl linkage in emodin- and dermocybin-1-β-D-glucopyranosides. The developed enzymatic method was found to be effective for the pigment isolation, as the hydrolysis occurred virtually completely, thus leading to a high pigment yield. Two fractions were obtained by the method: Fraction 1 (94% of the total pigment amount), containing almost exclusively the main pigments emodin and dermocybin, and Fraction 2 (6%), containing the anthraquinone carboxylic acids. A 10.5 kg amount of fresh fungi yielded 56 g of Fraction 1 and 3.3 g of Fraction 2 anthraquinones. The anthraquinones in each fraction were separated by thin-layer chromatography using toluene–ethyl acetate–ethanol–formic acid (10:8:1:2, v/v/v/v) as eluent. The components on the chromatograms were detected and characterized by measurements on a densitometer-spectrophotometer. Combined gas chromatography-mass spectrometry was applied to determine the anthraquinone derivatives of Fraction 1 after methylation and acetylation.