

USE OF HPTLC FOR DIRECT MONITORING OF METABOLISM OF [2-¹⁴C]- CYMOXANIL BY A SENSITIVE STRAIN OF *BOTRYTIS CINEREA*

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Cymoxanil [1-(2-cyano-2-methoxyiminoacetyl)-3-ethylurea] is an antimildew which also shows a high activity towards a strain of *Botrytis cinerea*. In previous HPLC or HPTLC studies [1], we have shown that cymoxanil is a fungicide. It quickly disappears in presence of the mycelium or the cell-free extract of the sensitive strain. In order to monitor the apparition of metabolites, we used [2-¹⁴C]-cymoxanil [2]. A direct monitoring of different biological samples was performed by HPTLC. With such a method, avoiding problems caused by an extraction of polar metabolites, the analysis was easier and faster. The HPTLC plates were analysed both by a linear detector of radioactivity and by autoradiography. The use of different layers [silica or C₁₈ pre-treated by (tBu)₄NBr ions] and eluents, allowed us to monitor the main metabolites encountered in the culture medium, the mycelium or the cell-free extracts.

[1] a) J.-C. Cherton, M.-T. Chevassus-Clément, C. Lange, O. Convert, R. Fritz and P. Leroux, *J. Chromatogr* 566 (1991) 499. b) F. Tellier, R. Fritz, P. Leroux, A. Carlin-Sinclair and J.-C. Cherton *J. Chromatogr B* 769 (2002) 35.

[2] P. Leroux, R. Fritz, D. Despreaux, dans : R. Greenhalgh, T.R. Roberts (Eds.), *Proceedings of the 6th International Congress of Pesticide Chemistry, Ottawa, Pesticide Science and Biotechnology, 1986* p191