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Simultaneous detection of cyclopiazonic acid and aflatoxin B1 by HPLC in methanol/water mobile phase

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A simple procedure for the simultaneous detection of cyclopiazonic acid (CPA) and aflatoxin B1 from fungal extracts is presented, using a methanol and water mobile phase and fluorescence detection. This methodology has been tested with standard solutions of both mycotoxins – CPA and Aflatoxin B1 – and with methanolic extracts of Aspergillus section Flavi strains, previously characterized for their mycotoxin production profile. Previously available methodology required the use of two different chromatographic runs for these mycotoxins, with distinct columns and detectors (fluorescence detection with a post-column photochemical derivatization (PHRED) for aflatoxin B1 and UV detection for CPA). The proposed method detects both mycotoxins in a single run. Data from these assays will be presented and discussed.

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