FUNGAL IDENTIFICATION BY NEAR INFRARED SPECTROSCOPY

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Many plant diseases are caused by pathogenic microorganisms such as fungi and result in significant yield losses in agriculture. As of now, these diseases are most often diagnosed by PCR-based techniques, which require time, experimented personnel and expensive equipment. Near infrared spectroscopy (NIRS) coupled with multivariate analysis is a viable option for the detection and identification of these pathogens. It is a fast, inexpensive and easy to use technique that already has many applications in agriculture and microorganism identification, both *in situ* and in laboratory. The method and data processing presented here allows discriminating between strains of fungi inoculated on Petri dishes and measured by NIRS at different incubation stages.

Biography

Sylvain Treguier has obtained his MSc in Analytical Chemistry and Chemometrics at the Université de Bretagne Occidentale (UBO). He worked at the R&D department of Maïsadour Semences, where he developed calibrations for on-line spectroscopic measurements of various technological characteristics of seeds. He is currently pursuing a PhD in Agri-Food Biotechnology at the INP-Purpan, about the use of spectroscopy as a characterization tool.

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