

ABSTRACT

SYSTEM AND METHOD FOR NON-DESTRUCTIVE RAPID FOOD PROFILING USING ARTIFICIAL INTELLIGENCE

A system and method for non-destructive food rapid profiling in terms of taste, variant classification, adulteration, etc., using artificial intelligence. The system includes: a receptacle configured to move a non-homogenised sample in a path to intersect a volumetric sampling space; a sensor configured to sense reflectance from at least a part of the sample in the volumetric sampling space, the sensor being configured to output a component of the reflectance as captured data, the captured data being characterised by an overtone spectrum over a range of wavelengths; and a computing device configured to apply at least one first machine learning model to the captured data to: predict at least one facet corresponding to predictively determined selected wavelengths; and provide a signature data using the at least one facet.

(Fig. 1)