

ABSTRACT

Portable device for controlling an alcoholic beverage through a container, a system and a method associated thereto

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The invention relates in particular to a portable device (1) for controlling an alcoholic beverage in an at least partially transparent container (2), including

- a single light source (32) emitting a monochromatic excitation light beam of a wavelength comprised between 350 and 650 nanometers;
- 10 - a beam splitter (36) oriented at 45° with respect to the direction of emission of the light source (32) to reflect the excitation light beam;
- a focus (40) and collection lens;
- a positioning device (12) allowing to orient the light beam coming from the light source (32) along a direction substantially normal to the outer surface of the
- 15 container (2), the positioning device (12) also allowing to position the outer surface of the container at a predetermined distance from the focus lens, the predetermined distance between the focus lens and the container being selected such that the light beam is focused in the beverage at a distance from the wall of the container less than 1 millimeter and preferably less than 500 micrometers, the positioning device
- 20 (12) including a through opening for the passage of the light beam coming from the light source;
- a filtering device for filtering the fluorescence radiation captured by the focus lens (40) and transmitted by the beam splitter (36) so as to eliminate the wavelengths which are shorter than or equal to the wavelength of the light beam emitted by the
- 25 light source;
- a spectrometer module (50) for producing a signal corresponding to the measured spectrum of the fluorescence radiation of the beverage;
- an analysis module (62) for comparing the measured spectrum with a reference spectrum.

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Figure 4a