# OIV-MA-BS-26 Measurement of colour intensity

**Type IV method**

**1. Principle**

Colour intensity is determined by measuring the absorbance at 445 nm for an optical length of 1 cm thick (for traditional alcoholic beverages).

**2. Apparatus**

- A spectrophotometer enabling measurements at different wavelengths.
- Glass tanks with an optical path length of 1 cm and 0.2 cm.

**3. Procedure**

3.1. Alcoholic beverage of a natural "golden yellow" colour. Measure the absorbance at the wavelength 445 nm of the alcoholic beverage placed in a glass tank with an optical path length of 1 cm by setting the zero of the absorbance scale compared with distilled water.

*Remarks.*

- It is possible to measure the absorbance at any wavelength for alcoholic beverages naturally aged in wood and/or supplemented by caramel and/or supplemented by "woody" brandies because in all cases the absorption curves are continuous, without any maximum, or even a significant change in slope.
- Taking into account the maximum perceived by human vision it would be preferable to perform the measurement at 530 nm.
- The hue or hue gamut between two alcoholic beverages can be expressed, in certain cases, by measuring absorbance at 620 nm.
- Theoretically the sample should not be filtered if it is a product intended for direct consumption, but care should be taken to ensure that the sample is free of particles that are not a priori contained in the alcoholic beverage, especially those resulting from corking.

2. Alcoholic beverage containing synthetic dyes. First, the absorption maximum should be measured, and then the wavelength corresponding to the selected maximum, if necessary using a tank

with an optical path length of 0.2 cm.

**4. Expression of results**

Express the colour intensity by the absorbance measured under the conditions specified above, indicating the size of the colorimeter tank, and the chosen wavelength.

**5. Bibliography**

- Compendium of International Methods of Analysis of Spirituous Beverages of Vitivinicultural origin, 1990, BERTRAND A., F.V. O.J.V. n° 867.