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# Method for Authentication of Alcoholic Beverages

Tech ID: 22873 / UC Case 2013-231-0

## BRIEF DESCRIPTION

A non-invasive and non-destructive method for the authentication and quality assurance of alcoholic beverages in bottles with porous stoppers.

## FULL DESCRIPTION

University researchers have developed a method that permits chemical characterization, stable isotope ratio measurements, and radiocarbon dating of volatile compounds from unopened bottles of wine or other alcoholic beverages. In the past, these forms of chemical analysis required the opening of the wine bottle and sampling of the liquid, which rendered the contents of the bottle worthless for resale and later consumption. Now, the most volatile fraction of the beverages can be extracted from the cork and/or ullage without opening or damaging the bottle, the cork, the foil capsule around the cork, or the content of the bottle, thereby allowing the sample to be chemically analyzed or 14C-dated.

## SUGGESTED USES

This method can be used for testing of any alcoholic beverage that has a porous closure and allows some gas exchange between the atmosphere and the content of the bottle. Thus, this will allow for the detection of wine fraud or wine spoilage without opening the bottle.

## ADVANTAGES

It is the first known method that enables simultaneous, non-invasive verification of vintage and the testing of spoilage in alcoholic beverages such as wine.

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,810,675	11/07/2017	2013-231

## STATE OF DEVELOPMENT

Laboratory testing has been successfully conducted.

## CONTACT

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## INVENTORS

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## OTHER INFORMATION

## KEYWORDS

Wine, Alcoholic beverages, Non-destructive testing, Authentication

## CATEGORIZED AS

- » **Biotechnology**
- » Food

## RELATED CASES

2013-231-0

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