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Determination of chlorophyll content in fruits, vegetables and derived products - Spectrophotometry method

水果、蔬菜及其制品种叶绿素含量的测定 分光光度法

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Determination of chlorophyll content in fruits, vegetables and derived products - Spectrophotometry method

1 Scope

This standard specifies the method for determining the chlorophyll content in fruits, vegetables and their products by spectrophotometry.

This standard is applicable to the determination of chlorophyll a content, chlorophyll b content, total chlorophyll content in fruits, vegetables and their products.

The linear range of chlorophyll a in this standard method is 0.004 mg/g ~ 0.018 mg/g; the linear range of chlorophyll b is 0.005 mg/g ~ 0.020 mg/g.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods

3 Principle

The chlorophyll in the specimen is extracted at a 1:1 (V:V) mixture of anhydrous ethanol and acetone. The absorbance values at 645 nm and 663 nm are measured for the test solution. The chlorophyll content of the specimen is calculated using the Arnon formula.

4 Reagents

Unless otherwise specified, the water used is grade 3 water or above as specified in GB/T 6682; the reagents are analytically pure reagents.

4.1 Anhydrous ethanol.

4.2 Acetone.

4.3 Extraction agent: A 1:1 (V:V) mixture of anhydrous ethanol and acetone.

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