

研究论文

高氯酸萃取—连续流动法测定烟草中的淀粉含量

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摘要 淀粉是烟草中较难测定的成分之一。为了快速准确地测定烟草中的淀粉含量, 研究了高氯酸萃取—连续流动法测定烟样中淀粉含量的方法, 即每0.1g烟草样品用1.0mL50%的酒精和1.2mL72%高氯酸萃取烟草样品中的淀粉, 通过自动化学分析仪(滤光片波长660nm)测定淀粉含量。采用该方法测定了云南烤烟烟叶、杀青烟叶、白肋烟和香料烟的淀粉含量, 方法的平均回收率96.71%, 相对标准偏差在1.79%~5.58%之间。与传统的酸解法和酶解法比较, 该方法操作步骤简单, 检测成本低, 快速准确。

关键词 [高氯酸; 连续流动法; 烟草; 淀粉](#)

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Determination of Leaf Starch Content by HClO₄ Extract with Continuous Flow Method

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Abstract

Starch is one of the constituents in tobacco leaf difficult to measure. In order to determine the starch content in tobacco leaf quickly and accurately, the method by HClO₄ extract with continuous flow was studied. Accordingly, 0.1g of tobacco leaf sample was extracted with 1.0ml of ethanol and 1.2ml of 72% HClO₄, the starch content of the extract was measured by the continuous flow method (at the wavelength of 660nm). The starch contents of Yunnan flue-cured tobacco, the de-enzymed tobacco, the burley tobacco and the oriental tobacco were measured. The average recovery rate of starch was 96.71% and the relative standard deviation ranged between 1.79%~5.58%. Compared with the conventional enzymic and acidic hydrolytic methods, this method appeared to be simpler, cheaper, quicker and more accurate.

Key words [HClO₄](#) [Continuous Flow Method](#) [Tobacco](#) [Starch Content](#)

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