



首页

2023年4月26 星期三 17:16:39

首页 > 科研进展 > 正文

首页

新闻动态

通知公告

科研进展

学术活动

科研平台

媒体报道

Characterizing volatile metabolites in raw Pu'er tea stored in wet-hot or dry-cold environments by performing metabolomic analysis and using the molecular sensory science approach

作者: 文章来源: 点击数: 176 更新日期: 2021-06-24

Title

Characterizing volatile metabolites in raw Pu'er tea stored in wet-hot or dry-cold environments by performing metabolomic analysis and using the molecular sensory science approach

Authors

Shanshan Xu, Xinsheng Zeng, Huiting Wu, Shanshan Shen, Xiaogen Yang, Wei-Wei Deng, Jingming Ning*

Journal

Food Chemistry

DOI

<https://doi.org/10.1016/j.foodchem.2021.129186>

Abstract

The aroma profile of raw pu'er tea (RPT) depends on its storage duration (2–10 years) and storage conditions (wet-hot or dry-cold environment). We analyzed the major odorants of RPT samples by performing metabolomic analysis and by using the molecular sensory science approach. Under dry-cold storage conditions, tea leaves had more carotenoid derivatives, glycoside-derived volatiles, and phenolic volatiles, resulting in “fresh,” “floral,” and “sweet” aroma. Under wet-hot storage conditions, tea leaves had more methoxybenzenes, which contributed considerably to their “stale” and “woody” aroma. We identified 11 and 4 compounds as the odor markers of RPTs when stored in dry-cold and wet-hot environments, respectively. Our findings provide a scientific basis for optimal storage that yields the desired aroma profile.

