

包種茶製程期間感官特性與香氣變化之關係

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摘 要

四季春為本省製造包種茶主要品種之一，為能了解不同季節之茶菁在製造期間其感官特性與香氣變化之關係，作為提昇成茶品質製造技術之改進。本研究乃以不同季節之四季春品種製造期間的茶樣進行官能品質（包括花香味、海苔味、青草味、焙火味、油耗味及稻草味）分析與香氣成分之定量分析，並探討兩者於製造過程中之相關性。結果顯示春、冬季茶菁在製造期間之官能品質特性之變化大致相同，在茶菁以青草味之特性最強，直至炒菁階段則急遽轉弱，相對地在花香及海苔味則漸趨增強。此外，夏、秋季茶菁在製程中之官能特性變化則屬另一類型，其與春、冬茶主要之差別在於青草味之改變較不明顯，導致其主要香氣特性如花香味、海苔味之強度相對減弱。在官能品質特性與香氣成分變化之關係方面，經統計相關分析結果得知與花香味具正相關之揮發性成分包括4-heptanone、linalool oxide、decanal、linalool、hotrienol、1,6-dimethyl-naphthalene、benzenemethanol、trans-beta-ionone-5,6-epoxide與nerolidol。與青草味具正相關之成分則包括6-methyl-5-hepten-2-one、epoxylinalool、1H-indole、2-methyl naphthalene及2H-1-benzopyran-2-one。與海苔味具正相關之成分有2-methoxy-4-(2-propenyl)-phenol、decanoic acid、2,7-dimethyl-naphthalene及dihydroactinidiolide。與焙火味具正相關之成分則有methyl-2-hydroxy benzoate及2,3-dihydrobenzofuran。

關鍵字：包種茶、感官特性、香氣

Correlation between the Changes in Sensory Attributes and Aroma of Pouchung Tea During Processing

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Summary

Si Ji Chun is one of the dominant varieties for Pouchung tea manufacture. In order to promote the quality of made tea and evaluate the processing technique, this study was focus on the correlation between the changes in sensory attributes with volatile compounds of Pouchung tea made from Si Ji Chun variety during processing. Sensory evaluation (including floral、seaweed、grassy、fired、rancidity and strawy) was done by quantitative descriptive analyses (QDA) method and quantitative analyses of aroma was done by using GC & GC-MS. Results showed the changes in sensory attributes of Si Ji Chun during processing made in spring and winter were similar but different from those made in summer and autumn. Pouchung teas made in spring and winter showed the high intensity of grassy at the raw stage and low at the pan fired stage. The intensity of floral and seaweed increased through processing. For Pouchung teas made in summer and autumn, the intensity of grassy only changed slightly during processing. It caused that the intensities of floral & seaweed were weak.

The statistical results for the correlation between the changes is sensory attributes with aroma

compounds of Si Ji Chun during processing showed positively correlation between floral with volatile compounds including 4-heptanone、linalool oxide、decanal、linalool、hotrienol、1.6-dimethyl-naphthale、benzenemethanol、trans-beta-ionone-5.6-epoxide and nerolidol. the 6-methyl-5-hepten-2-one、epoxylinalool、1H-indole、2-methyl naphthalene and 2H-1-benzopyran-2-one were positively correlated to the grassy aroma. the 2-methoxy-4-(2-propenyl)-phenol、decanoic acid、2.7-dimethyl-naphthalene and dihydroactinidiolide were positively correlated to the seaweed aroma. The methyl-2-hydroxy benzoate and 2.3-dihydrobenzofuran were positively correlated to the fired aroma.

Key words:: Pouchung Tea, Sensory Attributes, Aroma