水質及水溫對茶湯品質及化學成分之影響

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摘 要

以四種市售礦泉水 (AM、BM、CM、DM)、一種市售包裝飲用水 (PD)、自來水(TP) 及逆滲透水 (RO) 沖泡文山包種茶、高山茶及凍頂烏龍茶，將所得茶湯進行物理化學成分分析，試驗結果顯示，沖泡用水的 pH 值越高，則茶湯的 pH 值越高；以 DM、PD 和 RO 三種用水沖泡的茶湯水色可達水色標準，其餘四種用水之茶湯水色表現皆偏暗、偏黃；以 DM、PD 和 RO 三種用水沖泡之文山包種茶及高山茶，其茶湯總兒茶素濃度亦較高，但在凍頂烏龍茶則無此現象；在感官品評部分，BM、PD 和 DM 沖泡之茶湯在香氣滋味排序皆名列前三名，而 CM、TP 及 RO 水沖泡之茶湯滋味帶有菁、澀味。以 80℃、90℃和沸水等三種不同水溫沖泡綠茶 (碧螺春)、文山包種茶、高山茶、凍頂烏龍茶、東方美人茶及紅茶，結果顯示咖啡因含量、總兒茶素含量、游離胺基酸、茶湯水色之 b 值及導電度皆隨著沖泡水溫的上升而增加，L 值則隨水溫的增加有下降的趨勢。

關鍵字：沖泡、咖啡因、總兒茶素

Effects of Water Quality and Temperature on Tea Liquor Quality and Chemical Compositions

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Summary

Wenshen Paochung tea, High-mountain Oolong tea and Dongding Oolong tea were brewed by four packaged mineral water (AM, BM, CM and DM), one packaged drinking water (PD), tap water (TW) and reverse osmosis water (RO). The results indicate that the higher pH of the brewing water the higher pH of tea liquor. When brewing with DM, PD and RO, tea liquors showed normal liquor color. The others were darkish and yellow. Wenshen Paochung tea, High-mountain Oolong tea brewed by DM, PD and RO had higher concentration of total catechins in tea liquors except for the Dongding Oolong tea. In sensory test, tea liquors prepared by BM, PD and DM were the top three of flavor and taste, CM, TP and RO had astringent and grassy flavor. Green tea (Biluochun), Wenshen Paochung tea, High-mountain Oolong tea, Dongding Oolong tea, Oriental Beauty tea and Black tea were brewed by three kinds of water temperature. The results indicate that the concentration of caffeine, total catechins, free amino acid and electronic conductivity and “b” values of liquor color increased with water temperature, but the “L” values were decreased with temperature.

Key words: Brewing, Caffeine, Total catechins