

ClO₂ 与 Vc 协同处理后 T 值的变化如 7 所示。ClO₂ 和 Vc 协同处理苹果汁时,在过滤后其澄清度与对照和 SO₂ 处理者相差不大;在第 1 周期和第 2 周期后,3 种处理苹果汁的 T 值均略高于对照和 SO₂ 处理者,可能是由于 ClO₂ 的作用提高了澄清度;到第 3 周期后,3 种处理苹果汁的 T 值与对照和 SO₂ 处理者相差不大,可能是 Vc 的氧化分解形成了一些大分子物质降低了 T 值所致。因此,二者协同处理苹果汁时,也一定程度地提高了苹果汁的澄清度。

3 结 论

- (1) 在 380~600 nm 范围内,ClO₂ 与 Vc 对苹果汁吸收曲线没有影响。
- (2) 4、6、8 mg/L 的 ClO₂ 处理苹果汁有一定的防褐作用,10 mg/L 和 12 mg/L ClO₂ 处理的苹果汁色度略高于对照。单独用 Vc 防褐,尤其是无法避免接触氧时,防褐效果不理想。ClO₂ 与 Vc 协同处理时色度变化受添加顺序的影响。
- (3) ClO₂ 利于苹果汁的澄清,在苹果汁的贮存中也利于维持苹果汁的澄清。Vc 对苹果

汁的澄清度影响不明显。ClO₂ 和 Vc 协同处理苹果汁时,也一定程度地提高了苹果汁的澄清度。

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Effects of ClO₂ and Vc on Browning and Clarifying of Apple Juice

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ABSTRACT In this paper, the effects of ClO₂ and Vc on browning and clarifying of Fuji apple juice were studied. Adding ClO₂ and Vc did not affect the absorption curves of the apple juices in range of 380 to 600nm wavelength. When 4~12mg/L ClO₂ was used to treat apple juice, the 4, 6, and 8 mg/L level was found to have anti-browning effect on the samples, however, the 10 and 12mg/L level had less effect on the juice browning. No significant anti-browning effect was found when the apple juices were treated with Vc, especially when the sample was exposed under the air once in a while. The anti-browning effect of ClO₂ and Vc on apple juice was affected by the adding sequence. The results also show that adding ClO₂ benefited clarification and maintaining clarity of apple juice.

Key words apple juice, chlorine dioxide, Vc, browning, clarifying

信息窗

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欧洲近期又推出 3 种新型的功能性饮料:Reefresh、Reecover 和 Reelax。它们由一系列的功能性植物加工而成。Reefresh 含有咖啡因、维生素和矿物质,能增强体能;Reecover 含有植物中的抗氧化物质,能延缓衰老,促进人体健康;Reelax 混有草药成分,还含有一定量的红茶和绿茶,在剧烈活动后对恢复体能有很好的效果。