

Title Effect of storage conditions on quality of green tea
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Abstract

After storing green tea leaves at 4°C under 69% of relative humidity for 2 months, green teas were prepared by soaking 1 g of the each leaves in 100 mL of 70°C distilled water for 5 min. Total phenolic contents (TPC), total flavanol contents (TFC), ascorbic acid contents (AAC), catechins, and caffeine of the green tea were determined. TPC of the green tea at 14 days of storage increased from 267.53 to 326.06 mg/mL, compared to that of 0 day. TPC, however, decreased to 219.57 mg/mL at 28 days of storage, then increased to 273.05 mg/mL at 2 months storage. TFC and AAC of the green teas depend on storage period also showed similar trends with TPC. Catechin compounds and caffeine in the green tea were also significantly affected by storage period. Maximum epigallocatechin gallate (EGCG) and caffeine were found at 28 days and 14 days with values of 31.12 and 20.87 mg/g, respectively. These results indicated that the quality of green tea was significantly affected by storage period.