

Abstract

The effect of roasting on the levels of amines in high and low quality coffee was investigated. Arabica green coffee samples previously classified by cup as soft (high quality) and rio (low quality) were roasted at 220 °C. Bean samples were collected every 4 min during roasting. HPLC analysis was carried out for detection and quantification of bioactive amines. Putrescine was the prevailing amine in both samples, followed by spermidine and spermine. Putrescine levels were significantly higher for the rio sample compared to the soft one. Also, both histamine and tryptamine were only present in the rio sample. There was a significant decrease in total amine content during roasting, with degradation of putrescine, spermine, histamine and tyramine taking place mostly during the drying stage. Degradation of spermidine occurred at a slower rate.