Development and Quality Analysis of Green Tea Noodles

葉銘溪、柯文慶 ; 謝昌衛

E-mail: 9708316@mail.dyu.edu.tw

ABSTRACT

Noodles and green tea are both traditional and popular products widely accepted by consumers in oriental countries. A great deal of research indicates that drinking green tea is helpful with anti-inflammation and anti-cancer due to contain the compound polyphenols. In this study, 1-5%(w/w) green tea powder were added to wheat flour for preparation of green tea-noodles via mixing, modeling, and hot air drying. The influence of green tea powder on chemical, physical and sensory properties of the obtained noodles was investigated to determine the appropriate addition amount as an additive. The results showed that Hunter L value of noodles decreased from 65.32 to 49.91, as the green tea powder increased from 1% to 5%. Hunter a and b values had similar tendency, decreased from -0.34 to -1.07, and from 20.23 to 16.55, respectively. The noodles obviously changed to yellow-green in appearance color which was resulted from the original color of green tea powder. Green tea is characterized by containing abundant polyphenols. The total polyphenol content of the green tea noodles increased with increasing addition content of green tea powder, 0.865 mg/g (as gallic acid) for adding 1%, while 4.275 mg/g for that of adding 5%. The water-cooked green tea noodles decreased by 0.26 mg/g in polyphenol indicated only little loss in functionality was resulted from water-cooking. Flavor of the noodles varied by addition of green tea powder. According to consumer preference test, 3% green tea powder was optimal content for making green tea noodles due to appropriate color and taste.

Keywords : green tea powder, green tea noodles,total polyphenols,consumer preference

Table of Contents

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