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Stability Measurements for Frying Oils

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Stability of frying oils were evaluated by determining acid value, peroxides, polar compounds, induction period by rancimat, UV absorption, refractive index(RI), and fatty acid composition. Palm oil, beef tallow, and soybean oil were used during frying process of instant noodle. Palm oil was most stable during continuous frying by the results of acid value and polar compounds contents, and followed by soybean oil and beef tallow in decreasing order. Palm oil also showed the highest oxidative stability in autooxidation, and followed by beef tallow and soybean oil in decreasing order. These phenomena were considered due to the combined effects of natural antioxidants and fatty acid composition. There were no significant differences between analytical values of frying oils from those of oils extracted from fried instant noodles at significant level of 0.05.