

Optimising the baking and frying processes using oil improving agents

Christian Gertz,
Official Institute of Chemical Analysis, Hagen, Germany

Abstract

Frying is an extremely effective mean to cook food. A fried product tastes good and is prepared within a few minutes.

Unfortunately, many operators neglect the oil quality because of misunderstood economics or lack of understanding the importance of maintaining oil quality. Therefore cheap oils are preferred. The filtration or the addition of stabilizer are too time-consuming and too expensive.

Emulsifiers and synthetic antioxidants and antipolymerising agents are beneficial to performance during frying. Sesamol, rosemary and other natural extracts show strong stabilizing effects during frying operations. These days several oil improving agents for frying are commercially marketed. Some additives for example Maxfry not only delay the chemical degradation of the frying oil but also improve the heat-transfer and quality of the fried products.

The effectiveness of the treatment with filter aids, mineral adsorbents and the stabilizing effects of synthetic and natural agents are compared using Rancimat and OSET-Test.