

A Microtiter Plate-based Assay Method to Determine Fat Quality

M. Bertram, Jülich/D, C. Manschot-Lawrence, E. Flöter, Vlaardingen/NL,

U. T. Bornscheuer, Greifswald/D

A microtiter plate (MTP) method was developed to determine the quality of fats that are used in large-scale processing using lipase catalysis. Two assay formats were followed: In the first approach, the fats were interesterified with *p*-nitrophenol laurate using a lipase from *Thermomyces lanuginosa*; in the second approach, pH indicators were added to the fat samples containing lipase. A blind study using 29 fats showed that the MTP method using *p*-nitrophenol as pH indicator allowed a rapid and reliable assignment of bad fats and an acceptable differentiation between fats of moderate and good quality.