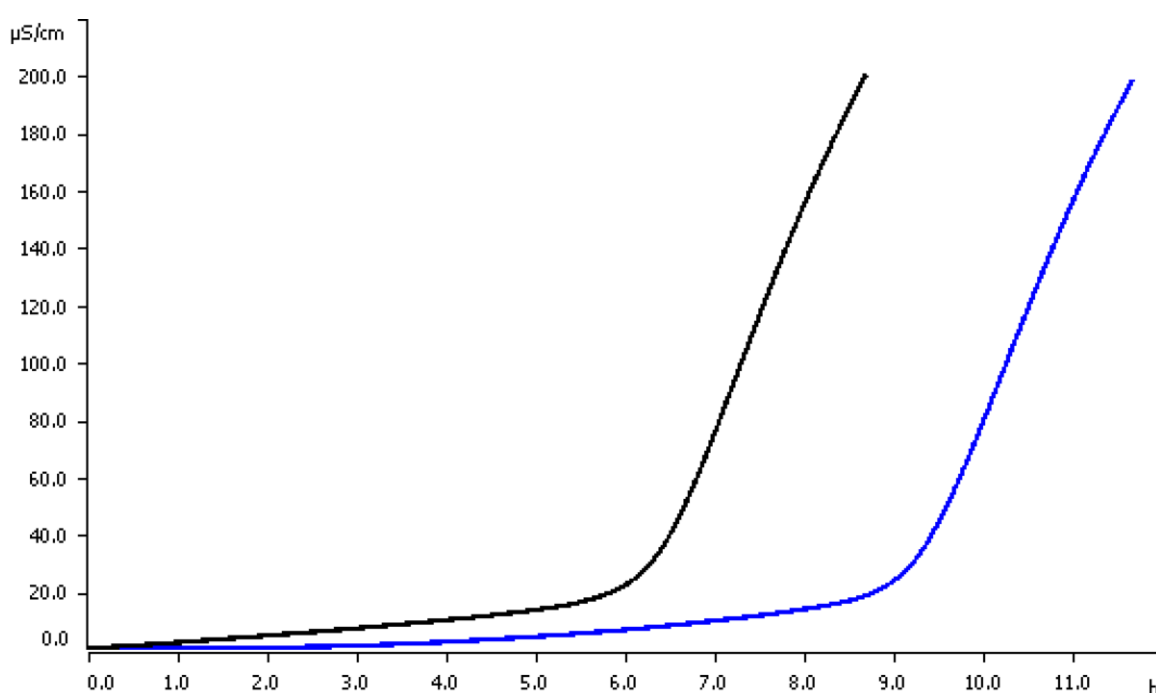


# Oxidation stability of fatty acid methyl esters (FAME, biodiesel)



Determination of the oxidation stability of fatty acid methyl esters (FAME) using the Rancimat method according to EN 15751. Fatty acid methyl esters are produced from vegetable oil (e.g., rapeseed oil) by transesterification of triglycerides to methyl esters. Antioxidants (e.g., ascorbyl palmitate) inhibit the autooxidation of FAME.

## Results

	Sample	Temperature	Induction time
—	FAME without antioxidants	110 °C	6.3 h
—	FAME with antioxidants	110 °C	9.3 h

# Method description

## Sample

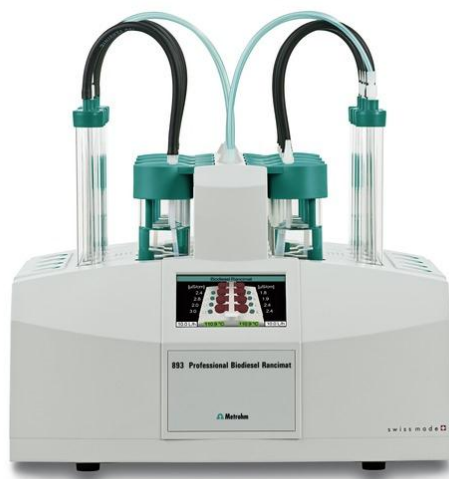
Fatty acid methyl esters made from rapeseed oil with and without antioxidant addition (50 mg/L ascorbyl palmitate)

## Sample preparation

None

## Instrument

893 Professional Biodiesel Rancimat



## Parameters

Temperature	110 °C
Air flow	10 L/h
Evaluation	Induction time
Evaluation sensitivity	1.0
Stop criteria	End points
Sample amount	7.5 g
Measuring solution	60 mL deionized water