Butter is a dairy product made by churning cream or milk to separate butterfat from buttermilk.Butter is typically light yellow and has a variety of uses, such as a spread on bread products, a condiment on cooked vegetables, a dipping sauce for bread and some types of seafood, and cooking uses like pan frying and baking Definition of butter A solid emulsion of fat globules ,air , and water made by churning milk or cream and use as food Nutritional value and benefits One teaspoon of butter has Over 30 calories and 3.3 grams of fat Balance hormones Prevent cancer Prevent night blandness Defining the Problem Determination of Moisture Determination of Fat Determination of Salt Analysis of butter DA 7250 nir analyzer is easy to use , there is no need to prepare sample, Add the sample of butter in the disposable cup and measure the sampleThe Method Over 800 butter samples from multiple processing plants in North America and Europe served as the calibration set.Calibrations were developed using multivariate Honig's regression algorithms and scatter correcting spectra pre-treatments Results and Discussion The DA 7250 results are very accurate when compared to the results from the reference methods.The Near Infrared Reflectance (NIR) technique is particularly suited for measurement of butter, but past instrument limitations have not allowed users to reap the full benefits of NIR.Sample presentation requirements such as glass cups that had to be filled properly and were difficult to clean made analyses laborious, time consuming and error-prone DA 7250 NIR Analyzer DA 7250 is a proven NIR instrument designed for use in the food industry.Using novel diode array technology, it performs a multi-component analysis in less than ten seconds with no sample preparation required.Using novel diode array technology, it performs a multi-component analysis in less than ten seconds with no sample preparation required.Using novel diode array technology, it performs a multi-component analysis in less than ten seconds with no sample preparation required.Statistics for the respective parameters are presented in the table below and calibration graphs are displayed in Figures 2, 3, and 4.The DA 7250 is more precise than the reference methods meaning that replicate analyses are generally more repeatable and representative.DA 7250 NIR Analyzer Introduction Analysis of fat, moisture and salt is of great importance to butter plants.As the sample is analyzed in an open dish, the problems associated with sample cups are avoided and operator influence on results is minimal.As the sample is analyzed in an open dish, the problems associated with sample cups are avoided and operator influence on results is minimal.As the sample is analyzed in an open dish, the problems associated with sample cups are avoided and operator influence on results is minimal.Spectral data for each sample was collected on the DA 7250 instruments using the Disposable Cup Module.Results and Discussion The differences between the DA 7250 and the reference method are of the same magnitude as typical differences between two different reference labs.In summary it is concluded that the DA 7250 can analyze butter for the aforementioned constituents.By accurately controlling these constituents, the producer can experience significant savings.The DA 7250 is IP65 rated and available in a sanitary design version, making it suitable for use in the lab as well as in production environments.The DA 7250 is IP65 rated and available in a sanitary design version, making it suitable for use in the lab as well as in production environments.The DA 7250 is IP65 rated and available in a sanitary design version, making it suitable for use in the lab as well as in production environments.Per standard regulations, the only fat butter can contain is butterfat in the form of an emulsion of fat and water.It is composed of 80% to 90% butterfat,

milk proteins, up to 16% water, and can contain salt as well.The speed allows users to easily and accurately analyze many samples a day in nearly real time.The reference chemistry results for fat, moisture, and salt was supplied with the samples.During this time a large number of full spectra are collected and averaged.Disposable cups can be used, eliminating the need for cleaning between samples.During this time a large number of full spectra are collected and averaged.Disposable cups can be used, eliminating the need for cleaning between samples.During this time a large number of full spectra are collected and averaged.Disposable cups can be used, eliminating the need for cleaning between samples.DA 7250 is a proven NIR instrument designed for use in the food industry.DA 7250 is a proven NIR instrument designed for use in the food industry.