

**Application Protocol: Hard Cheese:**

Cheddar, Edam and other hard cheeses.

Instrument Model: NIT-38 Dairy Analyser**No.:** 721 **Date:** 25 February 2009 **Rev.:** 2.1**Description:**

This protocol is to be used for the analysis of fat and moisture in processed hard cheeses such as Cheddar, Edam, and other hard cheeses.

Instrumental Parameters:

Cell Type	NIT-38 10mm Squeeze Cell
Pathlength	10mm
Integration Time	40000
No. Scans to Average	10

Constituents:	Range: MIN	Range: Max
Fat	10	45
Moisture	35	45

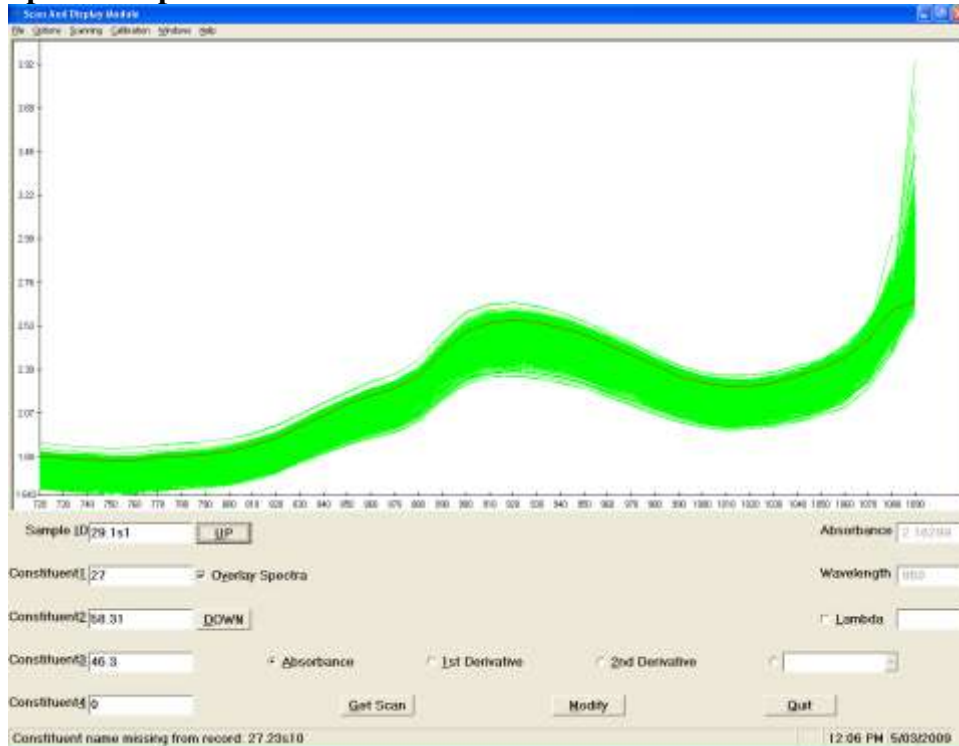
Sample Preparation:

Place 100g of diced (10mm or smaller) cheese into a standard kitchen food processor. Process the diced cheese for exactly one minute. The resultant mix should be well dispersed to a highly consistent degree. Weigh out 80g of the cheese and place it evenly into the cell. Spread the contents to fill the cell and scrap the surface to make an even surface. Close the Squeeze Cell and make sure that the cell is evenly filled.

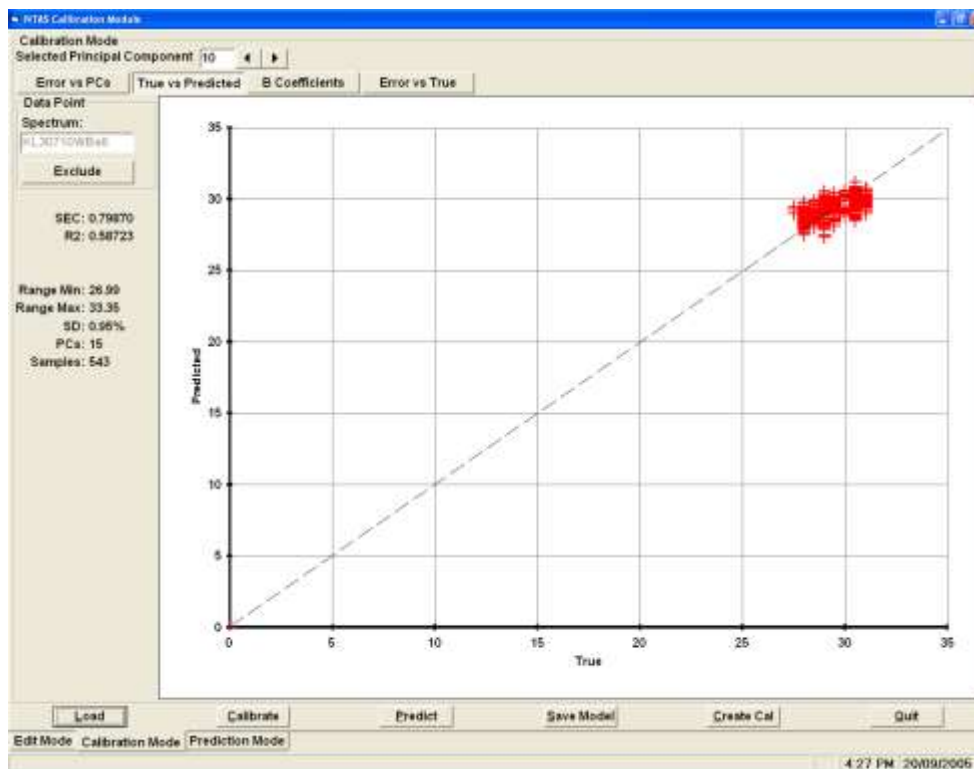
Sample Weight: 80 grams**Sample Temp:** 20° C (Room Temperature)**Comments:**

Care must be taken to keep air pockets to a minimum and that the cheese is spread evenly throughout the cell.

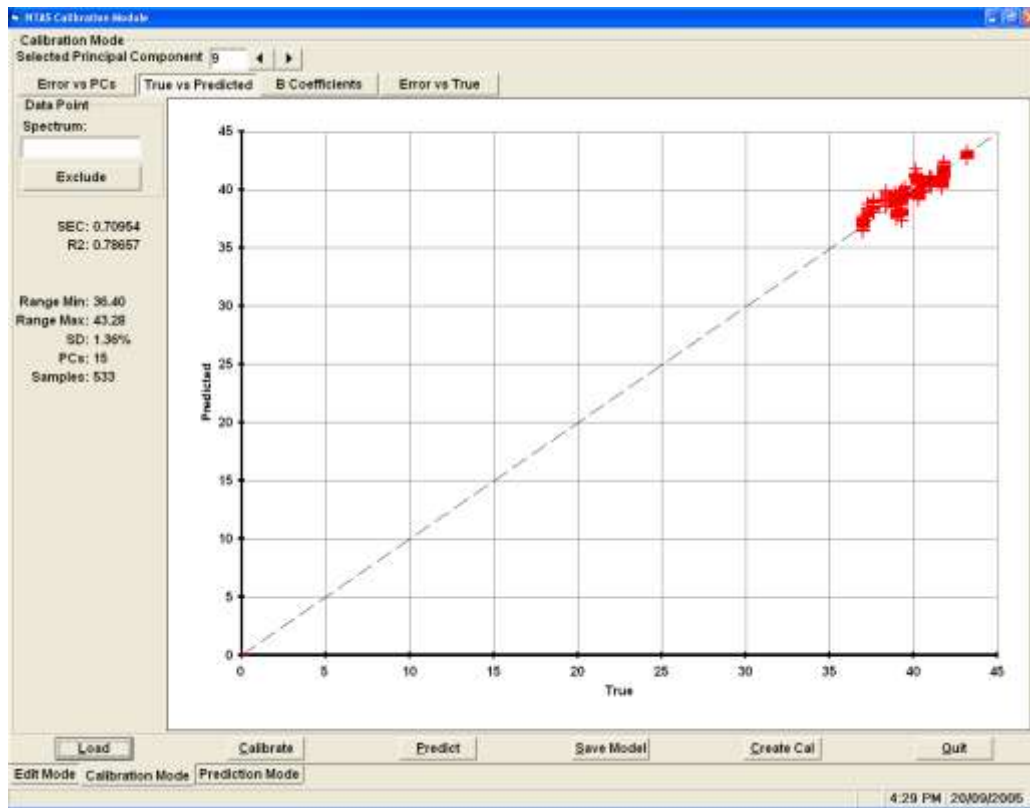
Spectral representation of hard cheese:



Calibration Statistics: Plots of True vs. Predicted values for each constituent.



Calibration plot of Fat in Hard Cheese



Calibration plot of Moisture in Hard Cheese