

DATA BULLETIN

Analysis of N/protein in sausage with the rapid MAX N exceed

N/protein analysis in sausage according to the Dumas method is a very demanding application field. This is particularly due to the high fat and salt content of the samples which have difficult combustion characteristics. The oxygen jet injection of the rapid MAX N exceed and its large post combustion zone ensures 100% sample digestion with full nitrogen conversion even for difficult sample matrices. The automatic ash removal additionally removes the remaining salt from the system. Moreover, sample inhomogeneities bring about the need for high sample weights, which poses no problem for the rapid MAX N exceed.

The samples were weighed into standard reusable stainless steel crucibles without any pre-treatment. All samples have been analyzed ten times using a standard method. A protein factor of 6.25 was applied to calculate the average protein content. The average values and absolute standard deviations are given below.

SAMPLE	N [%]	PROTEIN [%]	SD N [%]
salami	4.25	26.6	0.098
bockwurst	1.83	11.4	0.023
lyoner wurst	2.07	12.9	0.015

The results show the very good analytical performance of the rapid MAX N exceed for all types of sausage. All samples could be analyzed well within the required precision ($SD < 0.15\%N$) stated in the international standard AOAC 992.15 on "crude protein in meat and meat products".

The rapid MAX N exceed is the first N/protein Dumas analyzer that utilizes the highly successful EAS REGAINER® technology also for larger sample weights. The instrument offers fast N/protein determination with minimal maintenance, resulting in a high sample throughput, ideal for applications in industrial quality control, such as in the meat industry.

INSTRUMENT:

rapid MAX N exceed

DETAILS:

carrier gas: argon

sample: 500 mg sausage



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