

QUALITY AND SAFETY EVALUATION BY PROTEOMICS BASED APPROACH IN MEAT AND MEAT PRODUCTS

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Proteomics emerges as a new and efficient technique to characterize the protein component of the food based on proteome which is expressed from the genome and influenced by environmental and processing conditions. Although protein chemistry methods are sufficient to identify a single protein, inadequate to clarify some functions of proteins and to identify multi-protein systems such as foods. Proteomics eliminates these disadvantages and is applicable for food quality, monitoring and evaluation of food safety. Studies have been carried out in order to determinate biomarkers, specific to processes and products. Proteomics is a relatively new tool for meat and meat products with high content of protein. However, in recent years research in this area has been rapidly increasing. Within the scope of this review, the use of proteomic methods in meat and meat products will be discussed. Applications of proteomics in meat science and technology such as traceability, authenticity, adulteration, microbial contamination, processing effects, (e.g., gellation, emulsification, drying), farming conditions (e.g., rearing environment, feeding) will also be covered.

Keywords: Proteomics, meat quality, meat safety

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