



IDENTIFICATION OF TWO TYPES OF ROTTEN MEAT USING AN ELECTRONIC NOSE FOR FOOD QUALITY CONTROL

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Abstract- Microorganisms are contained in all foods, some of them don't pose a risk for consumers, but many others became pathogenic, because of bad conservation or expired dates. Food will be degraded when the number of microorganisms became very large. The focus in this paper will be on the design of an electronic nose used in detecting rotten food. This nose is applied to detect bad odor diffused by rotten beef, and rotten chicken those meat have almost the same odor at rottenness which is not easily identified by human. Durations and gases emit of its rotten are determined by the pattern recognition methods PCA (Principal Components Analysis) for classification and DFA (Discriminate factorial analysis) for dating, and we will be identify between those rotten meat by DFA method.

Index terms: Electronic nose, rotten beef, rotten chicken, sensors, Principal Components Analysis, Discriminate Factorial Analysis, Pattern recognition system.