Perfume Fragrance Discrimination Using Resistance and Capacitance Responses Of Polymer Sensors

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Abstract. This work shows a comparison between electrical resistance and capacitance responses of ethanol and five different fragrances using an electronic nose based on conducting polymers. Gas chromatography - mass spectrometry (GC-MS) measurements were performed to evaluate the main differences between the analytes. It is shown that although the fragrances are quite similar in their compositions the sensors are able to discriminate them through PCA (Principal Component Analysis) and ANNs (Artificial Neural Network) analysis.

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