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# GC-IMS screening to cluster the sensory grades of virgin olive oils

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In this work, the use of a gas chromatography coupled to an ion mobility spectrometer with a tritium source was investigated for the discrimination of virgin olive oils previously sensory assessed (EU Reg. 1227/2016) and characterized by different quality grades (extra virgin, virgin, lampante). The samples were injected by a headspace system and, after the gas chromatographic separation, the ion mobility data coming from the eluted volatiles were processed with various chemometric tools.

The preliminary elaboration evidenced a promising capacity to discriminate the samples according to their quality grade. The proposed approach is also sustainable and fast.