VOLATILE COMPOUNDS AS MARKERS OF QUALITY IN FROZEN ANCHOITA
(ENCERAULIS ANCHOITA)

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Engraulis anchoita is the most important pelagic fish species found in the south Atlantic area (47°S Argentina, e 23°S Brazil). Among the many factors that contributed to the quality of fish, aroma is the most important sensory characteristic for consumer. Several chemically volatile compounds are related with aroma. In this work, attention was focused on the identified as potential volatile markers for frozen anchoita. In order to determined the volatile in anchoita (Engraulius anchoita), was submitted 180 days of frozen storage at -20°C. The volatile compounds were isolated by headspace-solid phase micro-extraction (SPME) with a divinylbenzene/carboxen/polydimethylsiloxane (DVB/CAR/PDMS) fiber 50/30 μm. The SPME fiber was inserted into the headspace of the vial containing fish. After this period, the fiber was removed from the vial and immediately desorbed into the injector of the GC equipment. The volatile compounds were separated and tentative identified by a mass spectrometry (HS-SPME-GC-MS). Analyses were performed on days 0, 30, 60, 120 and 180. The volatile profile change during storage of these hexane (65.9% ±0.1) were recorded in relatively high amounts in fresh fish, whereas tetramethyl 2, 6, 10, 14-pentadecane (4.3%±0.2), hexanal (0.6%±0.7), acetone (4.3%±0.1) and 3-pentanone (3.3%±0.1) increased with storage time. The compounds 1-peten-1-ol and 2-peten-3-ol known as markers for the differentiation between fresh and frozen fish remained almost constant at storage time.