



Chemical characterization of the volatile fraction of *Sansevieria guineensis* (Agavaceae) and *Vanilla planifolia* (Orchidaceae) flowers by HS-SPME/GC-MS

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Sansevieria guineensis (Agavaceae) is a plant native to South Africa. The flowers of this species are characterized by their intense white color and floral fragrance (1). *Vanilla planifolia* (Orchidaceae) is a climbing plant of food and perfumery uses, distributed in Mexico and Malasia (2). The purpose of this study was to identify the components of the volatile fractions sampled with solid-phase microextraction (SPME) from *S. guineensis* and *V. planifolia* flowers. Tests were run with various fiber coatings of different polarities. The largest chromatographic area was obtained when the CAR/PDMS fiber was used. The SPME fiber was exposed to the compounds emitted by flowers (ca. 2 g) of *S. guineensis* or *V. planifolia* for 30 min at 60 °C. The sampling was carried out at different times of day (6:00 am, 12:00 pm, 6:00 pm). The chromatographic analysis was performed on an Agilent Technologies 6890 gas chromatograph coupled to an AT MSD 5973 mass selective detector (EI, 70 eV). A DB-WAX column (60 m X 0.25 mm id X 0.25 µm) was used, in splitless injection mode. The oven temperature was programmed from 50 °C for 5 min, then to 150 °C (2 min) at 5 °C min⁻¹; finally to 230 °C (35 min) at 5 °C min⁻¹. The major components of the *S. guineensis* flower volatile fraction were *p*-cresol (27 %), insect attractive compound (3), and ethyl alcohol (14 %). Methyl salicylate (31 %) was the major component of the *V. planifolia* flower scent, followed by benzyl acetate (16 %) and methyl benzoate (11 %). These compounds were also detected in aroma of cured vanilla beans by GC/MS and GC olfactometry analysis (2).

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