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# 1 Applications of solid-phase microextraction in food analysis

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## 10 Highlights

- 11 • An updated summary of SPME fiber coatings and quantification in is provided.
- 12 • SPME analyses of volatile flavors and off-flavors in diverse food matrices are reviewed.
- 13 • SPME analyses of different categories of non-volatile compounds in foods are expounded.
- 14 • Future perspectives of SPME in food analysis are discussed.

## 16 Abstract

17 Solid-phase microextraction (SPME), a solvent-free extraction technique, is an effective,  
18 cost-saving, versatile, and easily automated assay for high sample throughput. This paper reviews  
19 the application of solid-phase microextraction (SPME) for the analysis of flavors/off-flavors in  
20 wine, fruits, meats, cereal products and non-volatile compounds such as pesticides,  
21 pharmaceuticals and personal care products, endogenous substances and other contaminants in  
22 food samples. **The future developments and potential applications of SPME methods in food**  
23 **analysis was looked ahead.**

24 Keywords: SPME; Food; Progress; Volatiles; Non-volatiles; Contaminants

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