

METHODS AND APPLICATIONS OF FLAVOUR ANALYSIS

Erwin Rosenberg

Vienna University of Technology, Institute of Chemical Technologies and Analytics,
Getreidemarkt 9/164 AC, 1060 Vienna, Austria
*E-mail: erosen@mail.zserv.tuwien.ac.at

Modern flavours and fragrances are highly complex, formulated products that blend aroma compounds with auxiliary materials with the objective of adding desirable flavours or fragrances to a large variety of products. Although the flavour and fragrance industry is a key part of the worldwide specialty chemicals industry, knowledge about flavours and fragrances and their analysis is typically quite limited before recruitment. Even to a well-trained analytical chemist, the analytical chemistry of flavour and fragrance materials presents specific challenges, as most of the chemicals involved are highly volatile, present in very small amounts and in complex mixtures.

This course on Flavour Analysis covers the most important methods in the analysis of flavour and fragrance materials, including traditional and newly emerging methodologies and sensory and instrumental techniques. After a short introduction to the chemistry of flavour and fragrance substances, It discusses the capabilities of the various analytical methods for flavour and fragrance analysis and intends to offer guidance to the most appropriate techniques for specific analytical problems.

KEYWORDS: gas chromatography, sample preparation, sensory evaluation, multidimensional separation techniques, hyphenated techniques, chemometrics, electronic nose

CONTENTS:

- 1) An Introduction to the chemistry of flavours and fragrances.
- 2) Biogenic flavour formation.
- 3) Sample preparation methods for flavour analysis.
- 4) Headspace techniques.
- 5) Solid Phase Microextraction and related extraction techniques.
- 6) Multi-dimensional separation.
- 7) Gas chromatography/olfactometry.
- 8) Sensory evaluation.
- 9) Electronic noses and chemical sensors.

REFERENCES:

1. K. Goodner, R. Rouseff (eds.) Practical Analysis of Flavor and Fragrance Materials, Wiley, Chichester (2011).
2. A. Büttner (ed.) Springer Handbook of Odor, Springer, Heidelberg, (2017).

Termin	Dzień tygodnia	Godzina	Miejsce
13.05.2019	poniedziałek	9.15 – 12.00	Minicentrum Konferencyjne (Luwr)
14.05.2019	wtorek	9.15 – 12.00	Minicentrum Konferencyjne (Luwr)
15.05.2019	środa	9.15 – 12.00	Minicentrum Konferencyjne (Luwr)
16.05.2019	czwartek	9.15 – 12.00	Minicentrum Konferencyjne (Luwr)
17.05.2019	piątek	9.15 – 12.00	Minicentrum Konferencyjne (Luwr)