

CURRICULUM VITAE

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Title and name

Prof. Dr. Karl-Heinz Engel

Nationality

German

Panel / Scientific Committee

Panel on Food Additives and Flavourings (FAF)

Education

Dr. rer. nat. habil., 1993, Technical University of Berlin, Germany

Dr. rer. nat., 1984, Technical University of Berlin, Germany

Degree (Staatsexamen) in Food Chemistry, 1979, Technische Hochschule Karlsruhe, Germany

Work Experience

1995 – present	Technical University of Munich, Germany	Professor (Chair of General Food Technology); Teaching and Research
1991 – 1995	German National Food Agency (BgVV), Berlin, Germany	Director and Professor; Head of the section: Chemistry of Novel Foods and Genetic Engineering
1987 - 1991	Technical University of Berlin, Germany	Lecturer and Senior Researcher; Department of Food Technology and Biotechnology

Scientific expertise

- Food Chemistry
 - Analytical Chemistry
 - Flavour chemistry and analysis
 - Plant biochemistry
 - Food Technology
 - Enzyme Technology
 - Regulatory Science
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Most relevant scientific publications within the fields of EFSA

Author of more than 300 scientific papers in international journals and books. Main areas of research include analysis of flavourings, metabolite profiling of crops, and analytical characterisation of phytosterol oxidation products.

Scholz B, Weiherer R, **Engel KH**, 2017. Impact of thermooxidation of phytosteryl and phytostanyl fatty acid esters on cholesterol micellarization in vitro. Steroids;125:81-92. doi: 10.1016/j.steroids.2017.06.012.

Wocheslander S, Groß F, Scholz B, **Engel KH**, 2017. Quantitation of Acyl Chain Oxidation Products Formed upon Thermo-oxidation of Phytosteryl/-stanyl Oleates and Linoleates. *J Agric Food Chem*;65(11):2435-2442. doi: 10.1021/acs.jafc.7b00424.

Schlüter O, Rumpold B, Holzhauser T, Roth A, Vogel RF, Quasigroch W, Vogel S, Heinz V, Jäger H, Bandick N, Kulling S, Knorr D, Steinberg P, **Engel KH**, 2017. Safety aspects of the production of foods and food ingredients from insects. *Mol Nutr Food Res*;61(6). doi: 10.1002/mnfr.201600520.

Scholz B, Menzel N, Lander V, **Engel KH**, 2015. An approach based on ultrahigh performance liquid chromatography-atmospheric pressure chemical ionization-mass spectrometry allowing the quantification of both individual phytosteryl and phytostanyl fatty acid esters in complex mixtures. *J Chromatogr A*;1429:218-29. doi: 10.1016/j.chroma.2015.12.035.

Scholz B, Guth S, **Engel KH**, Steinberg P, 2015. Phytosterol oxidation products in enriched foods: Occurrence, exposure, and biological effects. *Mol Nutr Food Res*;59(7):1339-52. doi: 10.1002/mnfr.201400922.

Wenzel A, Frank T, Reichenberger G, Herz M, **Engel KH**, 2015. Impact of induced drought stress on the metabolite profiles of barley grain. *Metabolomics*; 11(2):454–467. <https://doi.org/10.1007/s11306-014-0708-0>

Habermeyer M, Roth A, Guth S, Diel P, **Engel KH**, Epe B, Fürst P, Heinz V, Humpf HU, Joost HG, Knorr D, de Kok T, Kulling S, Lampen A, Marko D, Rechkemmer G, Rietjens I, Stadler RH, Vieths S, Vogel R, Steinberg P, Eisenbrand G, 2015. Nitrate and nitrite in the diet: how to assess their benefit and risk for human health. *Mol Nutr Food Res*;59(1):106-28. doi: 10.1002/mnfr.201400286.

Orth AM, Poplachean I, Fastowski O, **Engel KH**, 2014. Assessment of dietary exposure to flavouring substances via consumption of flavoured teas. Part II: transfer rates of linalool and linalyl esters into Earl Grey tea infusions. *Food Addit Contam Part A Chem Anal Control Expo Risk Assess*;31(2):207-17. doi: 10.1080/19440049.2013.866717.

Orth AM, Yu L, **Engel KH**, 2013. Assessment of dietary exposure to flavouring substances via consumption of flavoured teas. Part 1: occurrence and contents of monoterpenes in Earl Grey teas marketed in the European Union. *Food Addit Contam Part A Chem Anal Control Expo Risk Assess*;30(10):1701-14. doi: 10.1080/19440049.2013.817687.

Hempfling K, Fastowski O, Celik J, **Engel KH**, 2013. Analysis and Sensory Evaluation of Jostaberry (*Ribes x nidigrolaria* Bauer) Volatiles. *Journal of Agricultural and Food Chemistry*;61(38):9067-9075. DOI: 10.1021/jf403065e

Lubinus T, Barnsteiner A, Skurk T, Hauner H, **Engel KH**, 2013. Fate of dietary phytosteryl/-stanyl esters: analysis of individual intact esters in human feces. *Eur J Nutr*;52(3):997-1013. doi: 10.1007/s00394-012-0407-4.

Frank T, Scholz B, Peter S, **Engel KH**, 2011. Metabolite profiling of barley: Influence of the malting process. *Food Chemistry*; 124(3): 948-957. <https://doi.org/10.1016/j.foodchem.2010.07.034>

Barros E, Lezar S, Anttonen MJ, van Dijk JP, Röhlig RM, Kok EJ, **Engel KH**, 2010. Comparison of two GM maize varieties with a near-isogenic non-GM variety using transcriptomics, proteomics and metabolomics. *Plant Biotechnol J*;8(4):436-51. doi: 10.1111/j.1467-7652.2009.00487.x.

Reichelt KV, Peter R, Paetz S, Roloff M, Ley JP, Krammer GE, **Engel KH**, 2010. Characterization of Flavor Modulating Effects in Complex Mixtures via High Temperature Liquid Chromatography. Journal of Agricultural and Food Chemistry; 58(1): 458-464. DOI: 10.1021/jf9027552

Frank T, Nörenberg S, **Engel KH**, 2009. Metabolite profiling of two novel low phytic acid (*lpa*) soybean mutants. J Agric Food Chem;57(14):6408-16. doi: 10.1021/jf901019y.
