



# Agilent Technologies

## Agilent ZORBAX StableBond

A collection of citations to advance your research

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## Food testing and agriculture

### [Key meat flavour compounds formation mechanism in a glutathione–xylose Maillard reaction](#)

*Food Chemistry*, **131**, 280-285 (2012)

Ran Wang, Chao Yang, Huanlu Song

#### Tags

DB-5ms UI, ZORBAX SB-C18, ZORBAX Eclipse XDB-C18, 7890A GC, 7000B Triple Quadrupole MS, 6210 TOF-MS, 1200 Infinity Series, food testing and agriculture, food authenticity, fish and meat

#### Abstract

Meat flavor volatiles were assessed using an Agilent J&W DB-5ms UI GC column fitted to an Agilent 7890A/ 7000B Triple Quadrupole GC/MS. Non-volatile components were measured using Agilent 6210 TOF-MS and Agilent 1200 Series HPLC, with an Agilent ZORBAX Eclipse XDB-C18 LC column. DKP was quantified with a ZORBAX SB-C18 LC column. Published by Elsevier B.V.

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### [Pesticide analysis in teas and chamomile by liquid chromatography and gas chromatography tandem mass spectrometry using a modified QuEChERS method: Validation and pilot survey in real samples](#)

*Journal of Chromatography A*, **1268**, 109-122

(2012)

Ana Lozano *et al.*

#### Tags

HP-5ms UI, ZORBAX StableBond, 7000 GC/MS/MS, 7693 autosampler, 1200 Infinity Series, 6410 Triple Quadrupole MS, food testing and agriculture, pesticides

#### Abstract

Seventy-five tea and chamomile samples were analyzed for pesticide residues using Agilent GC and LC systems. Published by Elsevier B. V.

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[Comparison of three multiresidue methods to analyse pesticides in green tea with liquid and gas chromatography/tandem mass spectrometry](#)

*Analyst*, **138**, 921-931 (2013)  
Lukasz Rajski *et al.*

**Tags**

HP-5ms UI, ZORBAX StableBond, Ultra Inert liner, 1200 Infinity Series, 7890 GC, 7000 Triple Quadrupole GC/MS , 7693 Autosampler, 6460 Triple Quadrupole LC/MS, MassHunter software, food testing and agriculture, pesticides

**Abstract**

Agilent GC/MS and LC/MS systems and columns were used in a comparison of different extraction methods for assessing pesticide residues in green tea. Published by the Royal Society of Chemistry.

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[Identification of Anthocyanins in the Liver, Eye, and Brain of Blueberry-Fed Pigs](#)

*Journal of Agricultural and Food Chemistry*, **56**,  
705-712 (2008)  
Wilhelmina Kalt *et al.*

**Tags**

Bond Elut NEXUS, ZORBAX Eclipse XDB-C18, ZORBAX SB-C18, 1100 Series LC, food testing and agriculture

**Abstract**

Dietary intervention with anthocyanins may confer benefits in brain function, including vision. Research to date indicates that animals have only a limited capacity to absorb anthocyanins, compared to other types of flavonoids. Pigs, which are a suitable model for human digestive absorption, were used to examine the deposition of anthocyanins in tissues including the liver, eye, and brain tissue. Pigs were fed diets supplemented with 0, 1, 2, or 4% w/w blueberries (*Vaccinium corymbosum* L. 'Jersey') for 4 weeks. Prior to euthanasia, pigs were fasted for 18–21 h. Although no anthocyanins were detected in the plasma or urine of the fasted animals, intact anthocyanins were detected in all tissues where they were sought. LC-MS/MS results are presented for the relative concentration of 11 intact anthocyanins in the liver, eye, cortex, and cerebellum. The results suggest that anthocyanins can accumulate in tissues, including tissues beyond the blood-brain barrier. Reprinted with permission from the Journal of Agricultural and Food Chemistry. Copyright 2008 American Chemical Society.

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# Small molecule pharmaceuticals

## [Regulation Effects of \*Crataegus pinnatifida\* Leaf on Glucose and Lipids Metabolism](#)

*Journal of Agricultural and Food Chemistry*, **59**,  
4987-4994 (2011)  
Tao Wang *et al.*

**Tags**  
ZORBAX SB-C18, small molecule  
pharmaceuticals, traditional medicine

### Abstract

The leaf of *Crataegus pinnatifida* (Rosaceae) is commonly consumed either raw or cooked to improve digestion and promote blood circulation in China. To investigate the regulation effects of it on glucose and lipid metabolism, the flavonoids fraction was prepared and analyzed by HPLC and LC-MS. *In vivo*, at doses of 250 and 500 mg/kg, the flavonoids fraction showed inhibitory effects on TG and glucose absorption, accelerating effects on gastrointestinal transit but no effect on gastric emptying. *In vitro*, treatment of 3T3-L1 preadipocytes with 30 µg/mL flavonoids fraction significantly suppressed the accumulation of TG and free fatty acid. It also suppressed the gene expressions of C/EBPα, PPARγ, SREBP 1c, aP2 and adiponectin but did not affect that of leptin. *C. pinnatifida* leaf may be useful for type 2 diabetics and hyperlipidemics as a foodstuff. Reprinted with permission from the Journal of Agricultural and Food Chemistry © 2011 American Chemical Society.

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