



# Agilent Technologies

**Agilent J&W DB-23**

A collection of citations to advance your research

## **Table of contents**

[Energy and chemicals](#)

[Food testing and agriculture](#)

## Energy and chemicals

### [Use of an Adsorption Process for Purification of Pollock-Oil-Based Biodiesel Comprises Methyl Esters](#)

*Journal of the American Oil Chemists' Society*,  
**89**, 1713–1721 (2012)  
Kevin Mis Solval, Subramaniam Sathivel

**Tags**  
DB-23, 6890, energy and chemicals, biofuels and  
alternative energy

#### **Abstract**

Fatty acid methyl esters of fish samples were determined using an Agilent J&W DB-23 GC column fitted to an Agilent 6890 GC. Published by Springer.

---

## Food testing and agriculture

### [Chemical Composition of 13 Commercial Soybean Samples and Their Antioxidant and Anti-inflammatory Properties](#)

*Journal of Agricultural and Food Chemistry*, **60**,  
10027-10034 (2012)  
Xiaowei Zhang *et al.*

**Tags**  
DB-23, 7890A GC, food testing and agriculture

#### **Abstract**

A total of 13 commercial soybean samples were investigated and compared for their tocopherol and carotenoid compositions, fatty acid profile, total phenolic content (TPC), isoflavone and sterol compositions, and free radical scavenging properties. Free radical scavenging activities were estimated against peroxy, hydroxyl, and ABTS• + radicals. The commercial soybean samples differed in their chemical compositions and health properties. Among the tested samples, CN-DB soybean showed the highest TPC and antioxidant activities and the greatest amount of total isoflavones and lutein and tocopherol contents. In addition, four of the soybean samples were further tested for their potential anti-inflammatory activity. The four samples behaved differently in suppressing the IL-1 $\beta$ , IL-6, and COX-2 mRNA expressions, suggesting their different potential of anti-inflammatory activities. The results from this study suggested a need of improved quality control and measurement system to better reflect the health properties of commercial soybeans for general consumers and food manufacturers to improve the use of this important food ingredient. Reprinted with permission from the Journal of Agricultural and Food Chemistry © 2012 American Chemical Society.

---

[A combined methodology to detect  \$\gamma\$ -irradiated white sesame seeds and evaluate the effects on fat content, physicochemical properties and protein allergenicity](#)

*Food Chemistry*, **131**, 713-721 (2012)  
Panagiotis Zoumpoulakis *et al.*

**Tags**  
DB-23, 6890 GC, food testing and agriculture,  
food processing and packaging

**Abstract**

Quantitative and qualitative analysis of FAMES were performed on an Agilent 6890 GC fitted with a flame ionization detector and an Agilent J&W DB-23 column. Published by Elsevier B. V.

---

[Microbial Conversion of Arachidonic Acid to Arachidonyl Alcohol by a New Acinetobacter Species](#)

*Journal of the American Oil Chemical Society*,  
**89**, 1663-1671 (2012)  
Toshihiro Nagao *et al.*

**Tags**  
DB-1ht, DB-23, DB-5ms, 6890N GC, food testing  
and agriculture, food processing and packaging

**Abstract**

The wax ester content in oil materials extracted from a microbial culture was analyzed using Agilent J&W GC columns fitted in an Agilent 6890 GC. Published by Springer.

---

[www.agilent.com/chem](http://www.agilent.com/chem)

Agilent shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material. Information, descriptions, and specifications in this publication are subject to change without notice.

© Agilent Technologies, Inc., 2014

Printed in the UK  
March 6, 2014

5991-3386EN

The Measure of Confidence

