



CAMAG overview

Dr. Melanie Broszat, Scientific Business Development Manager

CAMAG's HPTLC Software

winCATS

incorporates all steps of HPTLC, but old architecture

Plate oriented approach



visionCATS

our next generation software

Plate and Sample oriented approach



Sample Application

Development

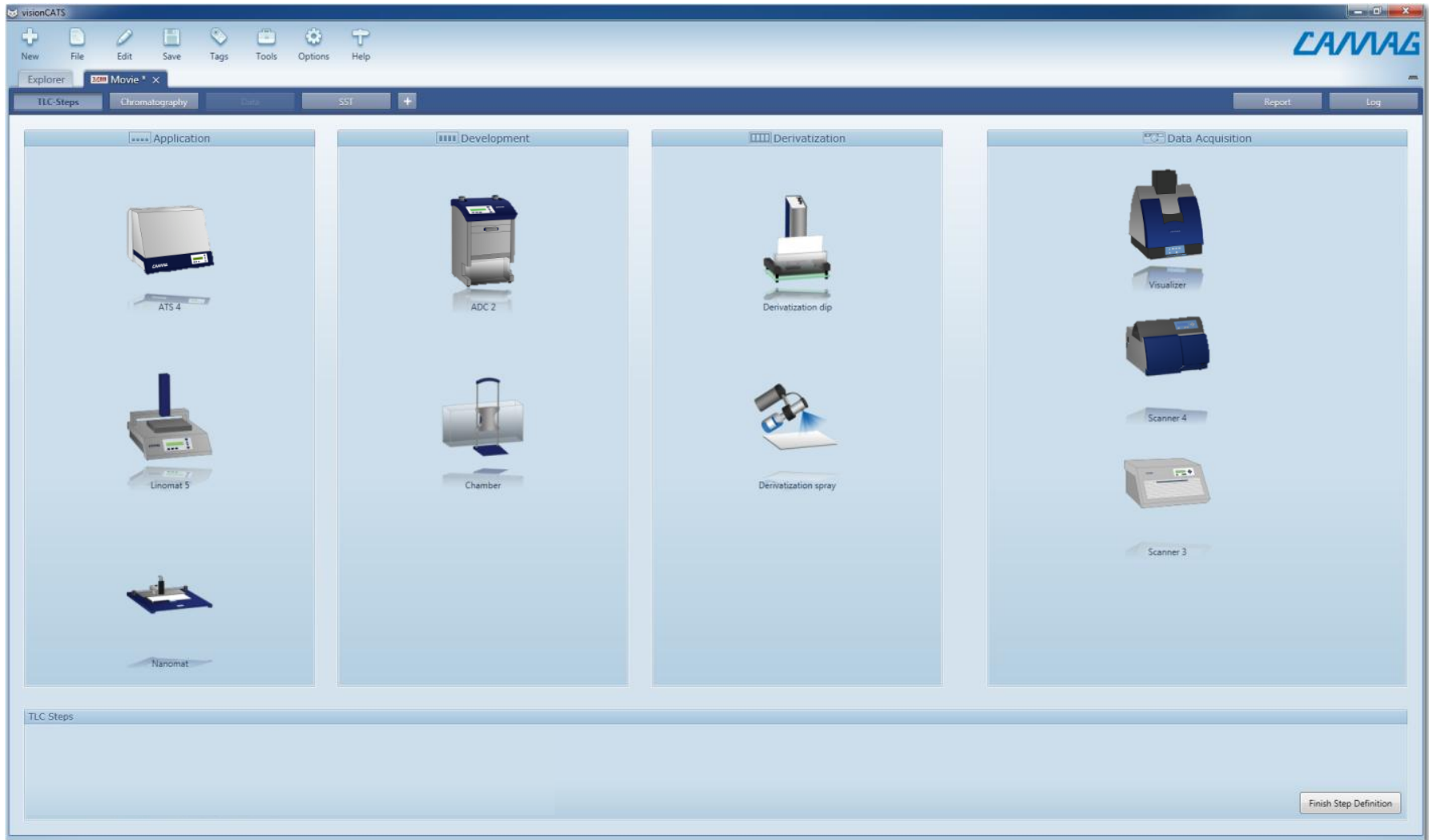
Derivatization

Detection Evaluation

Documentation

Report

visionCATS – Guided Analysis



Sample-Oriented, File Explorer

The screenshot displays the visionCATS software interface, which is designed as a sample-oriented file explorer. The interface is divided into several key sections:

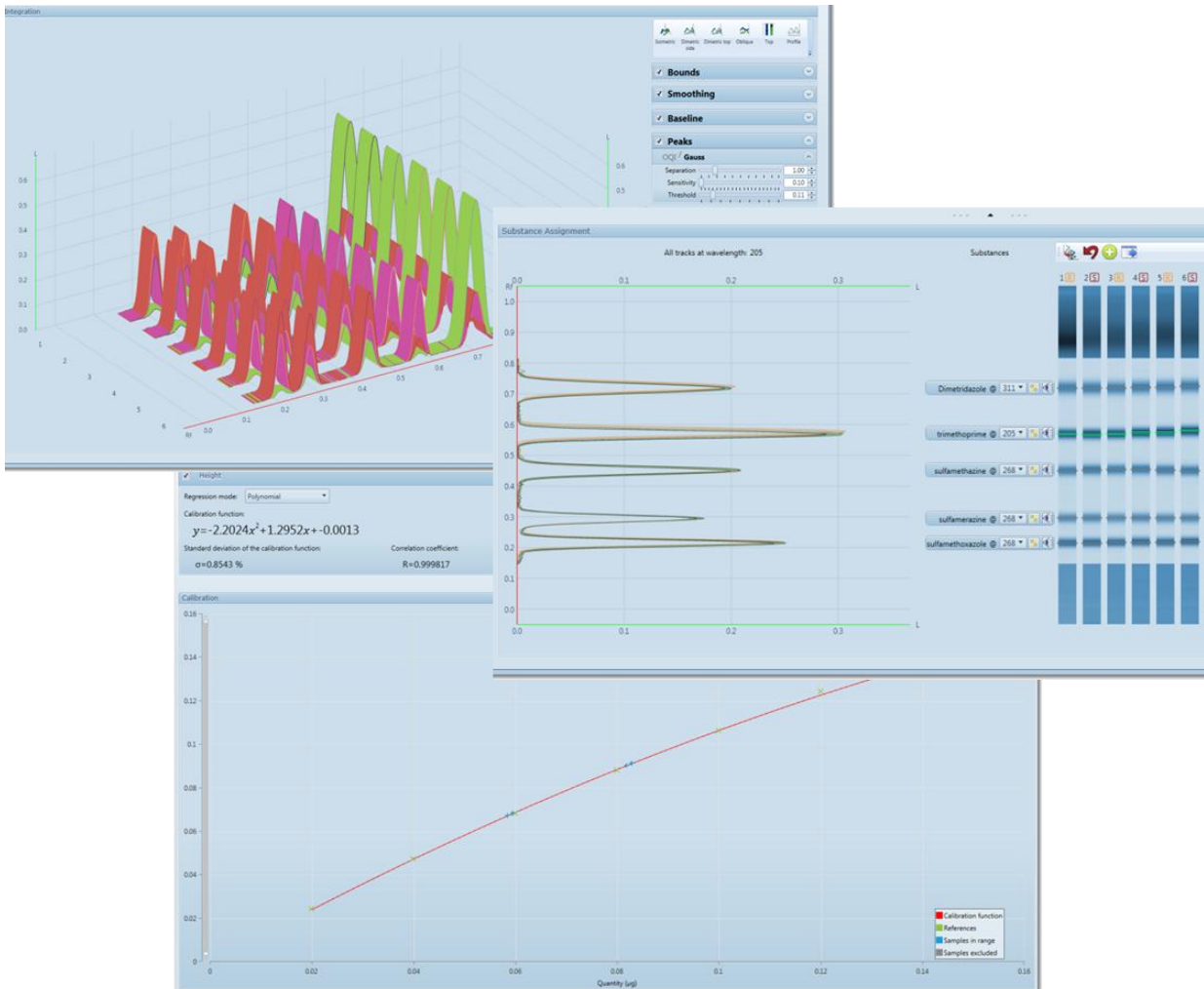
- Top Panel:** Contains a menu bar with options like 'New', 'File', 'Edit', and 'Save'. Below it is a toolbar with icons for 'Save', 'Tags', 'Tools', 'Options', and 'Help'. The title bar shows 'visionCATS' and the current file name 'Example Analysis 1 [read-only]'.
- Left Panel (A):** A navigation pane titled 'Quick access and search'. It shows 'Show only recent:' with icons for 'Methods', 'Analysis', 'Projects', and 'Comparison'. Below this, it says 'In current folder Example Analysis:' and includes a search box with a magnifying glass icon. A search result 'Plate Analysis (4)' is visible. A blue arrow points from this search result towards the main file list.
- Main Panel (B):** A file list view showing a table of analysis results. The table has columns for file names, creation dates, and modification dates. The files listed are:

File Name	Created	Changed	Notes
Example Analysis 1	18-Dec-2012 15:27:47	18-Dec-2012 15:28:53	Raw-H1004754
Example Analysis 2	04-Apr-2012 18:35:21	10-Apr-2012 14:54:31	
Example Analysis 3 quant absorption	06-Jan-2015 10:51:11	07-Jan-2015 10:40:28	
Example Analysis 4 quant fluorescence	06-Jan-2015 14:17:29	07-Jan-2015 11:42:43	
- Bottom Panel (C):** A preview area showing three sample images side-by-side. The first two are dark images with colored spots (red, green, blue), and the third is a lighter image showing a grid of spots. To the right of the images is a 'Notes' field and an 'E-Signature' field.

Image Comparison – Fully Integrated



SWL and MWL



Method Library

The screenshot displays the CAMMAG software interface, which is used for method development and analysis. The main window shows a 'Method Library' with a list of methods related to Turmeric rhizome analysis. A preview window (A) is open for the method 'ID of Turmeric rhizome - DCCL - ATS4', showing a table of substances and their retention times. The analysis results are displayed in a multi-panel view (B and C), including chromatograms and spectra.

Method Library Table:

Method Name	Created	Changed	By
ID of Turmeric rhizome - Anisaldehyde ...	08-Apr-2013 10:37:50	22-Jan-2014 08:12:48	Debra Amula Prohrommaler / CAMMAG Laboratory
ID of Turmeric rhizome - Anisaldehyde ...	08-Apr-2013 10:37:50	22-Jan-2014 08:12:57	Debra Amula Prohrommaler / CAMMAG Laboratory
ID of Turmeric rhizome - DCCL - ATS4	08-Apr-2013 10:37:50	22-Jan-2014 08:12:54	Debra Amula Prohrommaler / CAMMAG Laboratory
ID of Turmeric rhizome - DCCL - Linomat5	08-Apr-2013 10:37:50		Debra Amula Prohrommaler / CAMMAG Laboratory
Turmeric rhizome - Anisaldehyde detect...	15-Jan-2014 11:09:09		Debra Prohrommaler
Turmeric rhizome - DCCL detection	15-Jan-2014 11:09:17		Debra Prohrommaler

Preview Window (A):

Tr.	Description	Vol.
1	USP Curcuminoids (1151866) (S...	2.0
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Substance Table:

Substance	RT	RT window	Description
Curcumin	0.49	0.05	
Demethoxycurcumin	0.29	0.05	

Analysis Results (B and C):

Panel B shows chromatograms and spectra for the analysis. Panel C shows a detailed view of the chromatogram with peaks labeled for Curcumin and Demethoxycurcumin.

Functions and Features

Instruments:

- Supported instruments: ATS 4, Linomat 5, ADC 2, Visualizer, TLC Scanner 3 and 4
- Multiple applications with ATS 4 & Linomat 5
- Multiple development with ADC 2
- Multiple image capturing with the Visualizer
- Multiple scanning steps with the TLC Scanner
- Up to five different evaluation steps



Prof. Dr. Gertrud Horlock
ZLU Giessen, Germany

The adage "A picture is worth a thousand words" ideally refers to the image-giving planar chromatographic method for the evaluation of samples. In this case study, an HPTLC method for analysis of steviol glycosides with its single step was visualised in a short video recorded at the ZLU Giessen, Germany. Only sugarcontaining analytes, and so the steviol glycosides, were detected in separated raw extracts, Stevia formulations, or sugar-free food products using a selective derivatization with the 5-naphthol reagent. Coupling to mass spectrometry was employed for confirmation of the identity. The workflow of the method can be conveyed more effectively as a visualized experiment than as a pure description. Enjoy the video and agree with the updated adage "A video is worth a thousand words".

News & Events

EXPOFARMA 2015
18-17 April 2015, Mexico City, Mexico
Together with the local exhibitor TEBICH, CAMAG exhibits at the EXPOFARMA 2015 that will take place at the World Trade Center in Mexico City.

63rd ASMS Conference on Mass Spectrometry and Allied Topics
22 May-4 June 2015, St. Louis, MO
CAMAG exhibits at the 63rd ASMS Conference on Mass Spectrometry and Allied Topics that will take place at the Sheraton Center in St. Louis.

CAMAG *flash*

APRIL 2015

Case Study: Quantitative determination of steviol glycosides



A current topic of public discussion is obesity that is also seen in developing countries. The daily consumption of carbohydrates, particularly sugar has been correlated with this problem. Low or zero-calorie sweeteners have therefore become increasingly popular.

For centuries South American natives have used the plant *Stevia rebaudiana* to sweeten food and traditional medicines. The isolated diterpene sweeteners, so-called steviol glycosides, are about 200-300 times sweeter than sugar. Such purified Stevia extracts have been added to beverages and food or approved for its use in countries like Japan and China already for decades.

Positive safety opinions of the US Food and Drug Administration (FDA), European Food Safety Authority (EFSA) or the Joint FAO/WHO Expert Committee on Food Additives (JECFA) on the safe use of purified Stevia leaf extracts as food additive and sweetener in food and beverages have increasingly launched products containing steviol glycosides. In December 2011, steviol glycosides have been permitted as sweetener E 960 in the EU. Expressed as steviol equivalents, a daily intake of up to 4 mg/kg body weight was specified as acceptable.

CAMAG has released a case study that demonstrates a rapid characterization of Stevia formulations, Stevia raw extracts, or sugar-free food products by a selective derivatization of the steviol glycosides. Additionally, it shows the concept of confirming the identity of the different steviol glycosides by coupling with mass spectrometry. Relevant mass spectra of steviol glycosides were recorded in the positive ion mode in few minutes.

[Click here to view the entire case study.](#)


CAMAG CBS

- CAMAG Customer Magazin: Application examples from different fields
- Cumulative CAMAG Bibliography Service: A collection of abstracts of publications in the field of Thin-Layer Chromatography

The screenshot shows the CAMAG website interface. The navigation bar includes 'Home', 'My Account | Distributor Login', 'Downloads | Support | Jobs | Contact', and a search bar. The main menu lists 'TLC / HPTLC Thin-Layer Chromatography', 'DBS Direct Blood Spot Sampling', 'ALOX Aluminium Oxide', and 'CAMAG About us'. A blue banner reads '« INSTRUMENTS, TOOLS AND CONCEPTS FOR HPTLC »'. The left sidebar contains 'WHAT IS TLC/HPTLC PRODUCTS', 'COMPLETE SYSTEMS', 'APPLICATION FIELDS', 'CAMAG LABORATORY', 'TRAINING COURSES', 'CUSTOMER MAGAZINE CBS' (circled in red), 'CAMAG Bibliography Service', 'CCBS Database', 'SUPPORT/SERVICES', and 'CONTACT'. The main content area is titled 'CUMULATIVE CAMAG BIBLIOGRAPHY SERVICE CCBS' and features a search bar, a 'Browse by' dropdown, and a list of search options: 'Full text search', 'Classification', 'Keyword register', and 'CBS edition'. Below this is a profile for Prof. Dr. Gertraud Morlock, Editor CBS, with a photo and a list of search instructions. A 'PDF Cart' section at the bottom indicates the cart is empty and provides a link to create an account.

The image shows the cover of the CAMAG Bibliography Service (CBS) magazine, issue 114, dated March 2015. The cover features the CAMAG logo and the text 'CAMAG BIBLIOGRAPHY SERVICE'. The main title 'CBS 114' is prominently displayed. Below the title, there is a screenshot of the visionCATS software interface, which includes a cat logo and the text 'visionCATS CAMAG TLC SOFTWARE'. In the foreground, a blue and white chromatography instrument is shown. The text on the cover reads: 'visionCATS 2.0 – Our new software for qualitative and quantitative HPTLC analysis'. Below this, it lists other topics: 'Determination of monoacylglycerides in biodiesel – Screening for PDE5-Inhibitors – Cleaning validation at API production units – New screening concept for pesticide residue analysis'. The CAMAG logo and 'WORLD LEADER IN PLANAR CHROMATOGRAPHY' are at the bottom. A vertical banner on the left side of the cover reads 'CBS 114 • MARCH 2015' and 'CAMAG BIBLIOGRAPHY SERVICE PLANAR CHROMATOGRAPHY'.

Application Notes



TLC / HPTLC
Thin-Layer Chromatography

DBS
Dried Blood Spot Sampling

ALOX
Aluminium Oxide

CAMAG
About us

« INSTRUMENTS, TOOLS AND CONCEPTS FOR HPTLC »

WHAT IS TLC/HPTLC

PRODUCTS

COMPLETE SYSTEMS

APPLICATION FIELDS

CAMAG LABORATORY

Laboratory Services

Methods

Publications

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CUSTOMER MAGAZINE CBS

SUPPORT/SERVICES

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home > tlc / hptlc > camag laboratory > methods

TLC/HPTLC METHODS

HPTLC is the method of choice for many analytical tasks - a broad range of Application Notes is available for download. Registered users can download the Application Notes in pdf-format for free.

CAMAG Laboratory develops and validates HPTLC methods for the identification of botanical raw materials and finished products. By following these methods reproducible results are guaranteed.

These documents are part of the appendix of the paper [Validation of High-Performance Thin-Layer Chromatographic Methods for the Identification of Botanicals in a cGMP Environment](#) by Eike Reich, Anne Schibli, and Alison DeBatt (Journal of AOAC 91(1) 2008). This paper provides a summary of a project that aimed at:

- development and validation of 10 HPTLC methods for identification of botanical raw materials
- elaboration of a general concept for validation of such methods
- proving that their validation is possible and necessary with respect to cGMP
- providing to the botanical industry guidance in establishing practical and meaningful methods for quality assurance.

To view a validation protocol example, click [here](#).

ALL

search

ID	Application Note
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We love to entertain you!

TLC / HPTLC
Thin-Layer Chromatography

DBS
Dried Blood Spot Sampling

ALOX
Aluminium Oxide

CAMAG
About us

« INSTRUMENTS, TOOLS

LC »

home > tlc / hptlc > application fields

APPLICATION FIELDS

Herbal medicines and botanicals

- Identification
- Stability tests
- Detection of adulteration
- Assay of marker compounds, etc.

Food and feed stuff

- Quality control
- Additives (e.g. vitamins)
- Pesticides
- Stability tests (expiration), etc.

What is Dried Blood Spot Sampling

DBS-MS 500

Product Demo

Publications

Application Notes

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WHAT IS TLC/HPTLC

PRODUCTS

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APPLICATION FIELDS

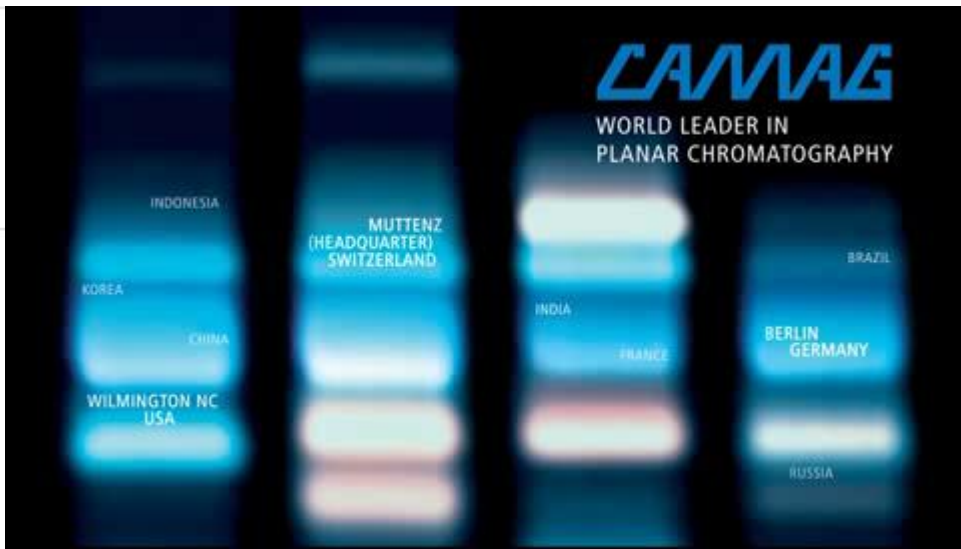
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Thank you for your attention!

