

**CAMAG 50 Years
Pioneer and Market Leader
of Planar Chromatography**



Rolf Rolli, CEO

Dear reader,

In CAMAG's 50 year business history we have always been devoted to TLC and its improvement, automation and standardization. During the 70s, the performance of thin-layer chromatography was significantly improved using instrumental techniques, thereby expanding its application to quantitative analysis. CAMAG has strived through determined research and development of appropriate instruments to improve the efficiency and accuracy of thin-layer chromatography in order to modernize the method which we now call Planar Chromatography. Today extensive standardization, ensuring improved reproducibility is CAMAG's new focus to gain acceptance of the method.

In the current environment researcher, authorities and customers want more information about almost everything in life. Examples are pollutants in our air and water, dangerous chemicals or residues in food and beverages, and composition of drugs or cosmetics. This quest has resulted in governmental and producers laboratories exhaustively analyzing all consumer products. Additionally, authorities investigate extensively in criminal and terrorist cases and test for doping in almost every sport. All these tests can be done with Thin-Layer Chromatography. CAMAG offers automated instrumentation to do it with less labor involvement and faster as well since several samples can be processed at the same time on a TLC plate.

We continue working purposefully and successfully to widen the acceptance and improvement of this time-tested technique.

News & Events

ArabLab, 10–13 February 2008, Dubai

Analytica, 1–4 April 2008, Munich/Germany

Pitcon, 1–7 March 2008, New Orleans/USA

Intern. Symposium for TLC, 11–13 June 2008, Helsinki/Finland

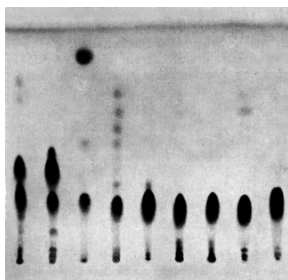


CAMAG

Flash

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From TLC to Planar Chromatography



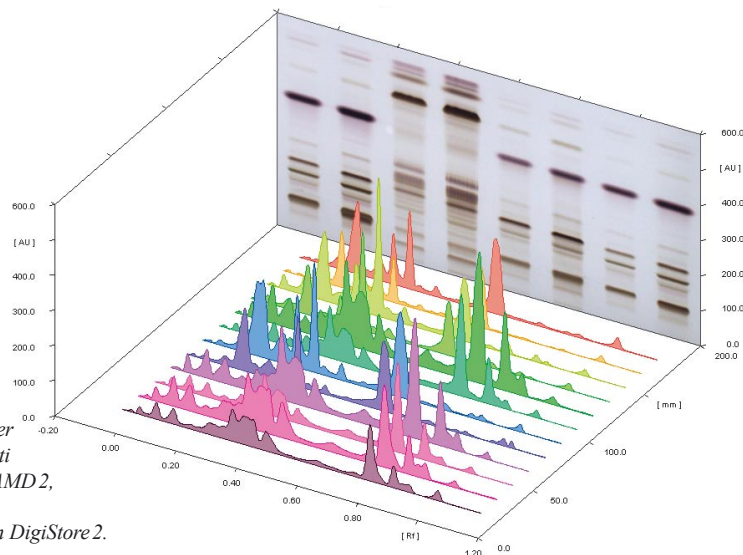
1962: Separation of oils from marine animals on silica gels, saturated chamber, visual evaluation

CAMAG was founded in 1958 and beginning in the following year, devoted itself to a new and promising technique: thin-layer chromatography. TLC, already used by Kirchner et al as "chromatostrip technique" in 1951, was promoted in the German-speaking countries from 1956 forward by Egon Stahl, who also proposed standardization of the methodology.

What was the technology like in the early 60s? For chromatography self made layers were commonly employed. Sample application and chromatogram development were widely performed with improvised tools, and the evaluation was done visually. Non-colored substances were either visualized with group specific spray reagents or through charring, following spraying with sulfuric acid. Initial approaches to quantitative analysis were either photometric measurements after scraping-off the layer and eluting the separation zones, or in situ determinations,

generally made under white light by means of densitometers, which at that time were designed for electrophoresis.

Today, chromatography is performed almost exclusively on commercially available pre-coated layers. For all steps of TLC – sample application, chromatogram development, quantitative analysis (with high resolution in the 190–800 nm spectral range), and documentation – fully automated solutions are available. Most of them have been developed by CAMAG. The entire TLC process is controlled by a single software (winCATS), which is compliant with cGMP and 21 CFR Part 11. The accuracy of the method has been strongly improved with CV's lower than 2% possible. For decades CAMAG has been the market leader of modern instrumental thin-layer chromatography, which we preferably call planar chromatography to distinguish it from older techniques.



Progress 2008: chromatogram of various lipids produced with CAMAG equipment Automatic TLC Sampler ATS4, Automated Multi Development System AMD2, TLC Scanner 3, Documentation System DigiStore 2.

WORLD LEADER IN PLANAR CHROMATOGRAPHY

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