NEXCHROM
ANALYTICAL CHROMATOGRAPHY SOFTWARE

IN DEVELOPMENT · EXPECTED EARLY 2027

GC SOFTWARE FOR NATURAL GAS

From GC data to certified results

One application for the complete workflow: from raw CDS data to reviewed, certified results for natural gas and calibration gas mixtures, with GUM uncertainty on every mole fraction.

Natural gas
composition by GC, from CDS file to certificate

ISO 6974 · 6976
natural gas analysis and gas properties

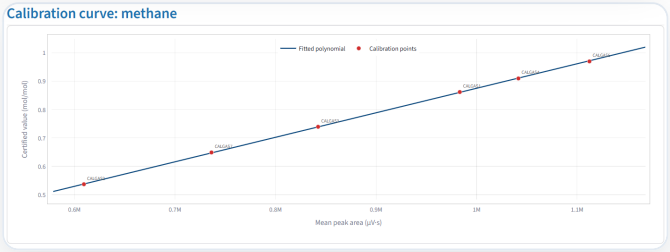
QC charts
control charts with automatic checks on every QC run

4-eyes
release of runs, models and certificates

THE CHALLENGE

One application instead of separate tools

Peak tables in the chromatography data system, the calibration in a spreadsheet, the uncertainty in another, the certificate in a word processor — and a review that depends on who has time. NexChrom brings it into one application, with one record of what was done.



Calibration curve in NexChrom: errors-in-variables regression in conformity with ISO 6143.

Defensible results

Every mole fraction comes with its uncertainty, and with the calibration model, the source file and the approval behind it.

Reduced manual work

Import, calibration, uncertainty and certificate in one flow — no numbers copied between programs, no formulas to check.

Integrated quality control

QC samples on control charts with automatic checks; a failed QC run cannot be approved, and every release takes a second pair of eyes.

WORKFLOW

The complete analytical workflow

1. **Instrument and sample setup** — register GC instruments, locations and samples; import CDS files.
2. **Method configuration** — component roles: direct (calibrated), indirect (via relative response factors) or fixed.
3. **Calibration** — errors-in-variables regression (ISO 6143) pre-selected, or ordinary, weighted and robust least squares.
4. **Execute and calculate** — mole fractions with GUM uncertainty; results outside the calibrated range flagged; gas properties per ISO 6976:2016 with their uncertainties.
5. **Review and approve** — runs, calibration models and certificates released by a second person.
6. **Certificates** — analysis certificates as frozen PDFs, optionally with a page of ISO 6976 gas properties; reference certificates imported from PDF.

DATA IMPORT AND STANDARDS

- **Native:** Agilent ChemStation (.D) and Scion/Bruker CompassCDS (.DATA) data files.
- **Via export:** CSV, Excel or text from Thermo Chromeleon, InterScience, Shimadzu and other systems.
- Results export as CSV and certificates as PDF, for your LIMS or ERP.

ISO 6974 · ISO 6976 · ISO 6143 · GUM · ISO/IEC 17025

Stand-alone and secure

NexChrom runs locally on a Windows computer and is used in a web browser; your data stays in a local database. No cloud account, no outside service it depends on: after installation it works without an internet connection.

AI Assistant — PLANNED ADD-IN

Questions about your own data and instrument documentation, answered by a local model.

NexChrom in development

Expected in early 2027. Register your interest to be kept informed of its release, or request a preview of the workflow from CDS file to approved certificate.

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