FT-IR SPECTROSCOPY

ALPHA II

The benchmark for compact FT-IR spectrometers

Innovation with Integrity

What you need to know about ALPHA II?

What is the ALPHA II? Robust.

An FT-IR spectrometer for chemical analysis. It is compact, robust and easy to use. It neatly fits into any lab and offers outstanding quality in every aspect. This means quality in its spectral performance, but also in its hardware and durability. It is your reliable partner in every situation.

Who can use the ALPHA II? Everyone.

Whether you operate the ALPHA in a small laboratory with professional staff or utilize it in a large industrial hall with ever changing users, Bruker's ALPHA is the right solution for you and always offers the same, easy-to-understand workflows.

Why use the ALPHA II? Stability.

The ALPHA II provides stability during a hectic workday as its consistency and reliability offer true peace of mind. It establishes trust, helping you focus on the things that matter, instead of tedious maintenance tasks.

In Academia ...

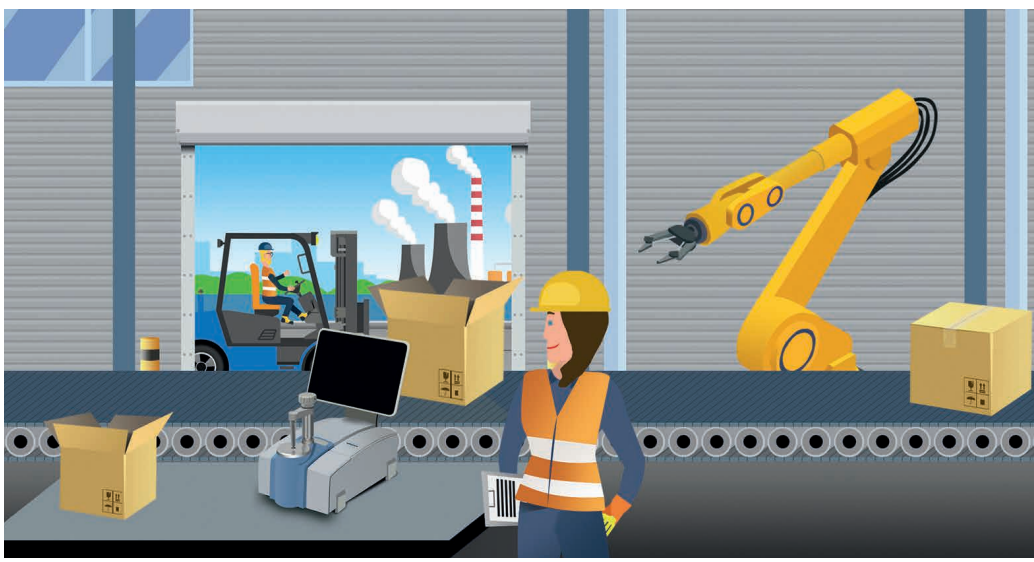
… ALPHA II is an easy-to-use analytical tool and teaching equipment thanks to its intuitive software and user-friendly design.

In Quality Control and Quality Assurance ...

… the premium optics deliver pinpoint accuracy to verify the integrity of products or quality of incoming raw materials.

In Industry ...

… a long service life, minimal maintenance, and stable results are achieved thanks to the robust design and high-quality components.



Amazing Workflow

Dedicate your ALPHA II to your application

Polymer	Forensics	Pharma	Academia	Chemistry
Goods inspection	Material identification	Finished goods QC	Reaction monitoring	Raw material inspection
Recycling	Unknown powders	Raw materials QC	Unknown powders	Chemical verification
Coatings	Paint identification	Packaging	Catalyst powder	Reaction monitoring
QC	Drug identification	Cream	Liquids	QA & QC

QuickSnap™? Quick start!

Our QuickSnap™ sampling modules offer full sampling flexibility, resulting in limitless workflows for the ALPHA II. No matter the sample, a push of a button is all it needs to exchange the sampling module and prepare your device for new tasks. The ALPHA II recognizes the replaced accessories immediately and sets up all parameters automatically.

A wide range of FT-IR sampling accessories for transmission, external, diffuse reflectance or attenuated total reflection (ATR) are available and provide many possibilities to adapt to any analytical question. Want to perform polymer quality control? No problem. Need to monitor a chemical reaction? Easy. There is so much the ALPHA II can do, you will be surprised.

Choose the appropriate QuickSnap™ module and the appropriate method like identification

Place your sample

Start the measurement with a single click / tap

Evaluate your results in an easy-to-understand user interface

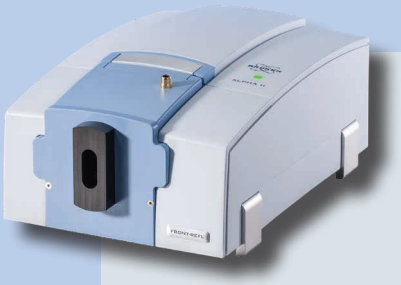
Report your results automatically and send to server / via email

Fast and conclusive results you can rely on!

Limitless Application

Oils & Fats
- Mineral oils
- Edible oils
- Car oil

Technique
- Multibounce
- Transmission



Art & Monuments
- Art conservation
- Archeology
- Jewels

Technique
- Reflection
- Diamond ATR

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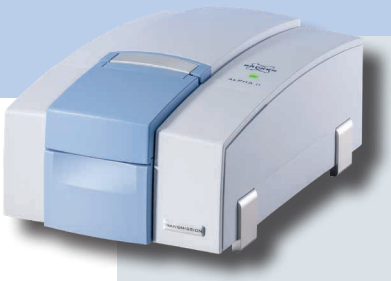

Environmental Studies
- Wood material
- Soil analysis
- Oil in water

Technique
- Transmission
- Drifts

Surfaces & Plastics
- Polymer coatings
- Biodegradables
- Failure Analysis

Technique
- Germanium ATR
- Reflection

SIGN
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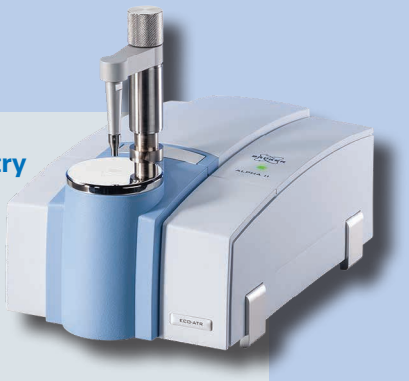
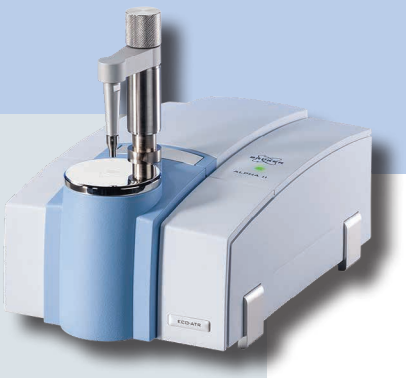
Convenient Chemistry
- Reaction monitoring
- Life science
- Cosmetics

Technique
- Diamond ATR
- Multibounce



Health & Drugs
- Kidney stones
- Pharmacies
- Cannabis

Technique
- Diamond ATR
- Transmission



Personalized Software

OPUS Touch is your analytical guide

Data integrity mode

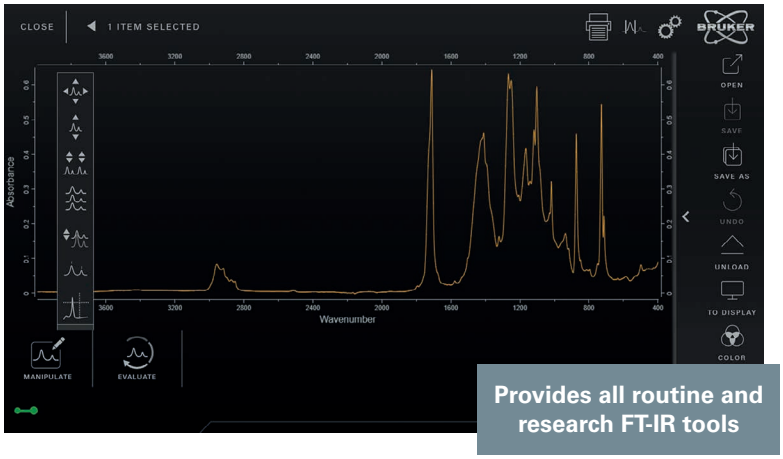
Easy to navigate

Personalized account

OPUS Touch Videos

What is OPUS TOUCH?

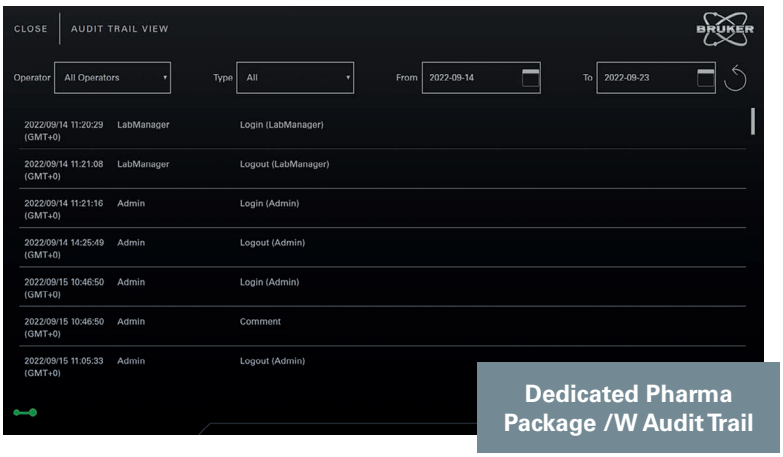
OPUS TOUCH is an easy-to-use IR spectroscopy software with a modern touch-centric user interface. Dedicated workflows, a data integrity mode and personalized user accounts make OPUS TOUCH your go to software for any bench top FTIR spectrometer. An intuitive interface with big buttons make it easy to navigate and reduce training times.



Provides all routine and research FT-IR tools

For Lab Managers

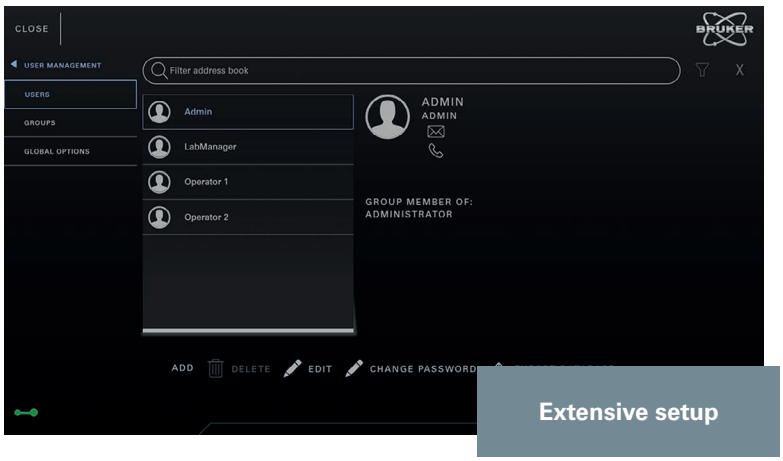
OPUS TOUCH helps you break down your workload into digestible steps. In tandem with ALPHA II, it offers a smart way to simplify your routine. On top, It is easy to learn, and to apply. Operators are never overwhelmed by information and Lab Managers can assign workflows and methods to make handling even easier.



Dedicated Pharma Package /W Audit Trail

For Validation Managers

OPUS TOUCH can ensure data integrity, traceability, and user accountability. You can achieve compliance of your software and methods according to 21 CFR part 11, cGMP, GLP and international pharmacopeia.



Extensive setup

For IT Managers

With intelligent data management, advanced user management and the choice of different data transfer interfaces, OPUS TOUCH is ideal for personalizing your system. This way, you can seamlessly integrate your ALPHA II into your IT structure.

High Reliability

Achieved by optical components

The ALPHA II is designed to be used for many years with low running costs. The CenterGlow™ infrared source has a lifetime of greater than 5 years and offers ideal intensity. Furthermore, the ALPHA II offers 10 years warranty on the interferometer, laser, and diamond ATR module.

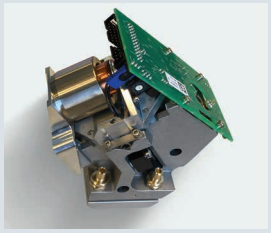
1 Platinum ATR
Durable & hygienic

2 OPUS Touch Panel
Ultimate comfort

3 CenterGlow™
Continuously optimized light flux

4 Internal validation unit
Automatic performance validation

5 RockSolid™ Interferometer
Always aligned & stable



6 QuickSnap™
Always recognizable for fast measurement

7 Solid State Diode Laser
Long lifetime and extented warranty

Abiding Impression

What do customers think of the ALPHA II

AVR GewerbeService

» "We are very satisfied with the spectrometer since it simplifies the work of recognizing plastics tremendously. We have never regretted purchasing an ALPHA. Very little time was spent on maintenance, and we did not have to invest money in maintenance or spare parts, yet. It was simply not necessary."

- Patrik Köster, Plant Manager -

Solitude Pharmacy

» "Investing in the Bruker ALPHA was one of my best investments and has paid for itself several times since 2014. It's a lot of money, but well spent under the conditions of the pharmacy rules in Germany. I don't want to miss it anymore!"

- Christoph Gulde, Owner -

Fuchs Schmierstoffe GmbH

» "The ALPHA II is very stable and durable. The technology as well as the software have been absolutely reliable. For us, the flexible and extensive settings in the OPUS software are especially important for the daily interpretation of spectra. The nice and simple options for automated evaluation of spectra are quite important tools for the quality control of lubricants."

- Bianka Beyerer, Group Leader Service Laboratory -

THE SWISS-KNIFE OF FT-IR SPECTROSCOPY.
A reliable device like the ALPHA II needs an equally reliable support network. Luckily, Bruker services extend globally making sure your service and validation needs are addressed in time and all over the world.

Technical Data

Spectrometer Housing	Rigid and durable metal housing
Detector and Interferometer	Temperature-controlled DLaTGS-detector; RockSolid™ cube corner interferometer
Spectral Range	350 – 8,000 cm^{-1}, with standard KBr beamsplitter; 500 – 6,000 cm^{-1}, option: "High Humidity" ZnSe
Signal-to-Noise Ratio	Typically > 55,000:1 (1 min measurement time, spectral resolution 4 cm^{-1})
Accuracy and Precision	<0.05 cm^{-1} @ 1576 cm^{-1}, <0.0005 cm^{-1} @ 1576 cm^{-1}
Dimensions	With Panel-PC: ~ 267 x 340 x 340 mm without Panel-PC: ~ 208 x 330 x 260 mm
Weight	Approx. 7-11 kg (Depending on configuration)

The ALPHA II at a glance

- Robust and compact FT-IR
- Integrated touch panel with state-of-the-art software
- Low cost of ownership
- Conveniently exchangeable sampling modules
- Absolute reliability through high system intelligence

Laser class 1 product.

Bruker Optics is continually improving its products and reserves the right to change specifications without notice.
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Bruker Optics is ISO 9001, ISO 13485, ISO 14001 and ISO 50001 certified.