

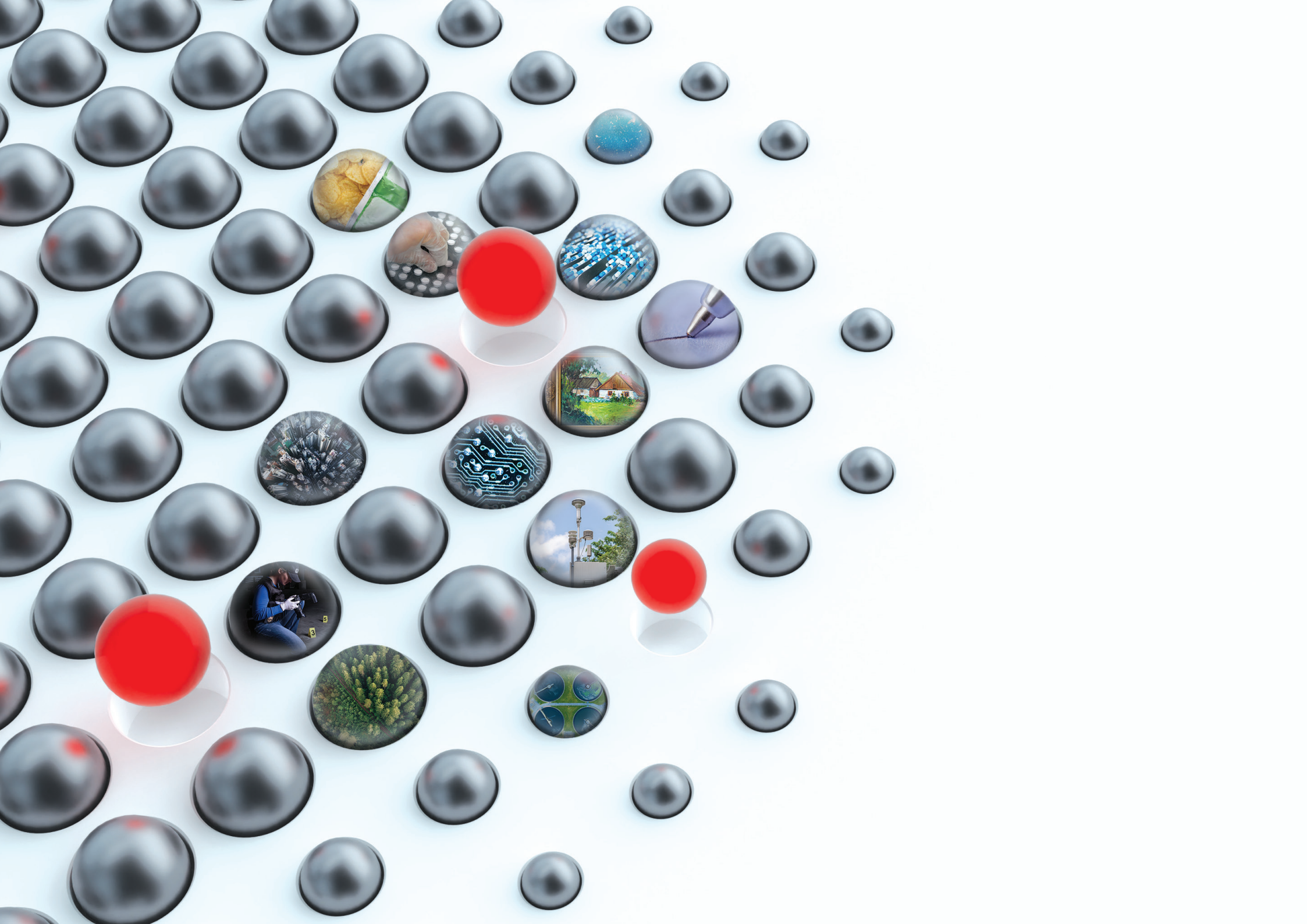
**ThermoFisher**  
SCIENTIFIC



See it fast.  
Identify it faster.

Thermo Scientific  
Nicolet RaptIR+ FTIR Microscope

thermo scientific



## A world of difference in every detail

In science, the tiniest details are enormously important. Homing in on the intricacies of a sample to find the answer you need is often a lengthy and difficult process, and any amount of time saved while searching for the solution can make a world of difference. We built the all-new Thermo Scientific™ Nicolet™ RaptIR+™ FTIR Microscope with a focus on precision and agility, so you can find answers faster than ever before.

From the mosaic feature to infrared capability to a seamless user experience, the Nicolet RaptIR+ FTIR Microscope is full of innovations in microscope technology that help specialists and non-specialists alike find and analyze the smallest samples in as little as 90 seconds. It's a workhorse that takes you from A to B with the efficiency and certainty you've come to expect from Thermo Fisher Scientific.

*Like the instrument's namesake, the raptor, the Nicolet RaptIR+ FTIR Microscope helps you locate your target from a great distance and swoop in on it in mere moments with power and precision that give you insight down to the micron level.*

## Makes sense of complex samples

In order to swiftly navigate and analyze complex samples, a highly adaptive user interface (UI) is essential. That's why we incorporated Thermo Scientific™ OMNIC™ Paradigm Software into the Nicolet RaptIR+ FTIR Microscope. Paradigm Software features a floating toolbar that predictively selects all of the applications you want at each step but doesn't clutter your screen with applications that are irrelevant to the task at hand. The software also enables the collection and analysis of large area maps as well as thousands of microparticles. And as you work, OMNIC Paradigm Software keeps your data safe in a secure database system.



# Where answers are measured in minutes and microns

Today's lab scientists face a difficult choice. You can either acquire microscope images with a wide field of view or a high resolution. You have to sacrifice one to achieve the other.

The brand-new Nicolet RaptIR+ FTIR Microscope gives you both. You can get straight to work without the added step of the prep scope. The 40 millimeter vertical travel and 5 kilogram capacity allow you to load larger samples. Once the sample is in place, you can use the mosaic feature to quickly examine the full breadth of your sample. After locating a specific area of interest, the 4x and 15x objectives let you zoom in to the micron level to find the answers you're looking for. Plus, the automated visible polarizers and infrared (IR) polarizers display your sample in further detail. Finally, the high-resolution 5 megapixel camera generates sharp images. With the Nicolet RaptIR+ FTIR Microscope, you can measure productivity in microns and minutes.

## Highest sensitivity across the mid-IR range:

### Liquid nitrogen cooled MCT-A

General purpose microscopy, for the smallest spot sizes, best signal to noise

## Fast, wider range:

### Liquid nitrogen cooled MCT-B

Good sensitivity, but with a wider spectral range

## Move into the near-IR:

### Room-temp InGaAs

Great for pharmaceuticals, moisture mapping, and polymerization studies



# From sample to report in record time

Finding and analyzing samples is a multi-step process. A truly efficient solution requires a holistic approach. We designed the Nicolet RaptIR+ FTIR Microscope to streamline each step in your workflow, so you can analyze samples with greater speed and simplicity.



## Validate

Nicolet RaptIR+ FTIR Microscope automatically ensures you can use it anywhere, anytime.

## Load

Load samples up to 40 millimeters thick and 5 kilograms in mass with the open access and heavy-duty stage.

## See

The high-resolution camera and eyepieces display clear images, and the adaptive UI and comfortable joystick provide a nearly effortless user experience.

## Target

The 4x and 15x objectives enable you to get a clear view of your entire sample, and focus in on the smallest detail.

## Collect

Cover a large area faster than ever with the microscope's infrared capability, and examine your sample with up to 10 spectra per second at a resolution greater than 5 microns.

## Analyze

Paradigm Software and UI simplify your entire analytical process.

## Report

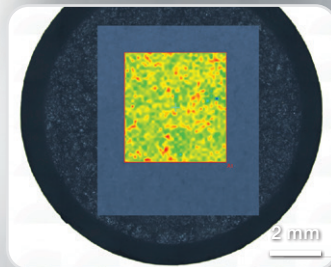
Nicolet RaptIR+ FTIR Microscope facilitates the transmission of data into a wide variety of formal and fully customizable formats to send to your stakeholders.

# Ready for any objective

The Nicolet RaptIR+ FTIR Microscope is not only adaptable for all users but also across industries. While the objectives, IR capability, and clear images are useful in fields of study as diverse as art restoration, quality control, and materials research, the microscope is loaded with additional features that complement the intricacies of key applications.

## Pharmaceutical

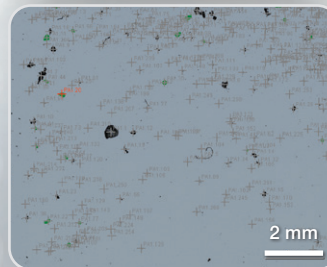
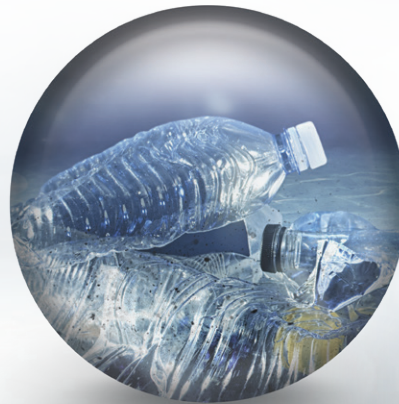
Produce and collect high-quality IR data over an entire tablet when reviewing a time-release dosage.



Distribution of API in a tablet.

## Environmental

Examine a dense microplastic sample with the wide field of view, then target a specific particle with automated visible and IR features.



Microplastics analysis on Si filter.

## Forensics

Discern counterfeit materials, identify inks on paper and investigate trace evidence with powerful visible and IR capabilities.



Marker on polymer with IR analysis.

# Complementary solution

Propel your laboratory to even greater heights. The Nicolet RaptIR+ FTIR Microscope can attach to the Thermo Scientific™ Nicolet™ iS50 FTIR Spectrometer allowing you to address complex analytical challenges. The Nicolet iS50 system can acquire data using far-IR to visible range spectrometry, highly automated operations, and a built-in mid/far IR diamond ATR. Plus, the full-sized sample compartment can be used for TGA-IR (deformulation) studies or FT-Raman. The side ports permit the addition of the iS50 NIR Module or even GC-IR capabilities.

You can also choose the more compact Thermo Scientific™ Nicolet™ iS20 FTIR Spectrometer as a more economical solution. Your laboratory can get straight answers, whether studying powders, liquids, gases, or micron-sized particulates.



Nicolet RaptIR+ FTIR Microscope

Nicolet iS50 FTIR Spectrometer with FT-Raman

Nicolet iS50 GC Module



Nicolet iS50 FTIR Spectrometer

Nicolet RaptIR+ FTIR Microscope



Nicolet iS20 FTIR Spectrometer

Nicolet RaptIR+ FTIR Microscope

## Let your science soar

Science keeps the world turning. Your efforts help make sure our drinking water is clean, our medications are safe, our history is preserved. Science improves every aspect of our lives without most of us realizing it. Laboratory scientists around the world commit their careers to a higher cause, working behind the scenes to maintain a safe and healthy society that's easy to take for granted.

We built the Nicolet RaptIR+ FTIR Microscope to help your science soar. Its adaptable design is suitable for scientists across all industries and skill levels. Plus, we engineered the latest technology into every step of your workflow to ensure you get sharp images and accurate analysis in record time. Whether you're new to lab science or a seasoned expert, the Nicolet RaptIR+ FTIR Microscope can help you identify samples in microns and minutes.

## We'll see you through any challenge, big or small

With decades of experience, a global business infrastructure and a specialized key account management team, we are well positioned to see you through any challenge, big or small. Through our extensive customer support system, we can assist with requests for on-site or virtual training, maintenance and repairs, emergency response and warranty contracts.

Capability	Nicolet RaptIR FTIR Microscope	Nicolet RaptIR+ FTIR Microscope
Visible resolution	1 micron	1 micron
Infrared resolution	5 micron	5 micron
Multiple detectors	Fixed, MCT-A, MCT-B	Swappable, MCT-A, MCT-B, InGaAs
Spectrometer options	Nicolet iS50 (right side)	Nicolet iS50 (right or left side) Nicolet iS20 (right side)
Objectives	4X or 40X visible, 15X or grazing angle infrared	4X or 40X visible, 15X or grazing angle infrared
Polarizers	Motorized, visible and IR	Motorized, visible and IR

Find out more at [thermofisher.com/raptir](https://thermofisher.com/raptir)

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