

Spectrometer for Plastic Materials





Spectrometer for Plastic Materials



Machine Learning-Based Identification of Plastic Types Using

2. Materials and Methods In this research, we combined spectroscopy using different devices with machine learning methods. First, we present our spectroscopic experiments and the plastic samples

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Fast, On-Site Plastics Identification: trinamiX NIR Spectroscopy

Identify plastics quickly and easily with our mobile and robust NIR spectrometer. Get fast, on-site results and accurate plastic identification. Learn how NIR spectroscopy can help quality control, sorting and



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Detect plastics use mobile spectrometers

Are you looking for an analyzer for Plastics? Our team of experts will be happy to support you and answer your questions about application, technology and options.

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Application Note: Material Identification of Plastics Throughout Their

Material Identification of Plastics Throughout Their Life Cycle by FTIR Spectroscopy: this application note highlights how the Cary 630 FTIR spectrometer provides an easy workflow for



Top 10 OEM High-Quality FTIR Spectrometers for Plastic Analysis?

This bar chart displays the sensitivity (in absorbance units) and price (in USD) of the top 10 OEM FTIR Spectrometers suitable for plastic analysis. The chart helps to compare the

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Identifying plastics with photoluminescence spectroscopy and

In this study, we demonstrate that such an approach could be realized by a combination of photoluminescence spectroscopy and a machine learning-based theoretical analysis.

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Near-infrared spectroscopy

Near-infrared spectroscopy is used in astronomy for studying the atmospheres of cool stars where molecules can form. The vibrational and rotational signatures of

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Plastic-based spectrometers offer low-cost, compact solution for

Traditionally, spectrometers--the tools that analyze the composition of light to detect materials or environmental conditions--have been bulky, expensive and difficult to mass-produce.

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Machine Learning-Based Identification of Plastic Types

Plastic waste and pollution is growing rapidly worldwide and most plastics end up in landfill or are incinerated because high-quality recycling is not

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Infrared spectroscopy

Infrared spectroscopy (IR spectroscopy or vibrational spectroscopy) is the measurement of the interaction of infrared radiation with matter by absorption,

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Choosing the Right Spectrophotometer for Plastics , HunterLab

Not only are spectrophotometers/colorimeters effective for enhancing the quality and production of molded plastics, but their versatility also extends to many other areas of plastic

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Spectrophotometer for Color Measurement in Plastics

By accurately measuring color properties, spectrophotometers ensure that plastic products meet stringent quality standards. This helps manufacturers

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Polymers

Using our point-and-click mobile NIR spectrometer requires no prior training. Simply aim the NIR device at the plastic material in question and press the button for

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Guide to the identification of microplastics by FTIR and Raman spectroscopy

Microplastics - common materials A microplastic is a small piece of plastic that is [Contact Us](#)



Analysis of Acrylonitrile-Butadiene-Styrene (ABS) Plastics

Infrared spectroscopy, however, allows a rapid method for comparing commercial resins. In addition, infrared calibration curves are extremely useful in analyzing the composition of ABS plastics.

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Exploring Plastic Spectrometers: Design and Applications

In material science, plastic spectrometers play a vital role in characterizing materials and understanding their properties. They assist in analyzing various materials,

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Fast and Simple Material Identification of Plastic Debris

Fourier transform infrared (FTIR) spectroscopy is well-suited to the identification of different types of plastic, as it provides reliable performance, high-quality data, and cost-effective analyses. This study

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How to Use a Spectrophotometer for Plastic Color

Discover how a spectrophotometer for plastics provides accurate plastic color measurement, ensures consistency, and supports reliable color

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Machine Learning-Based Identification of Plastic Types

For decades, near-infrared (NIR) spectroscopy has been a valuable tool for material analysis in a variety of applications, ranging from industrial process monitoring to quality assessment.

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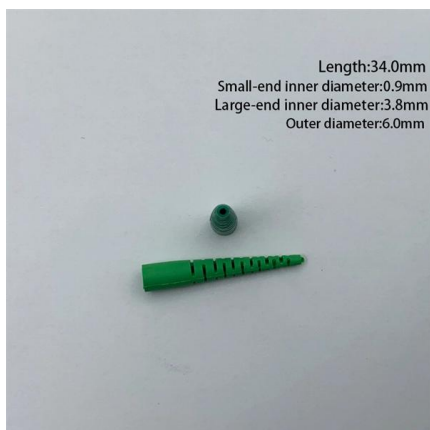




From plastic to precision: scalable broadband spectroscopy

The study, titled Stress-engineered ultra-broadband spectrometer, published in the journal Science Advances, describes a novel, low-cost

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Rapid on-site analysis of soil microplastics using miniaturized NIR

However, little attention was paid so far to the aspect of the instrumental differences as most studies employed just one spectrometer. Furthermore, no detailed investigations of the

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Material Identification of Plastics Throughout Their Life

This application note highlights how the Agilent Cary 630 FTIR spectrometer (Figure 2) provides an easy workflow for material identification throughout the life cycle of plastics.

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AOTF spectrometer for plastic identification

After the instrument is turned on and allowed to warm up, it is ready to identify plastics. By choosing the "identify" function, the instrument will identify plastic

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X-Ray Photoelectron Spectroscopy (XPS) for Polymers and Plastics

X-ray photoelectron spectroscopy (XPS) is a technique for analyzing the surface chemistry of a material. Surface modification can be used in a wide variety of applications to alter or

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Handheld FTIR, Mobile Nondestructive Testing , Agilent

A handheld FTIR spectrometer for mobile non-destructive testing in the field and non-laboratory environments. Analyze FTIR reflectance of polymers, coatings,

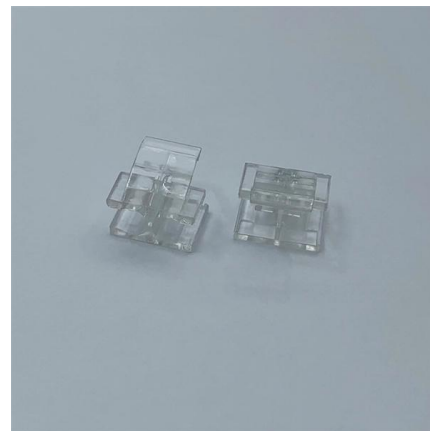
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Fast, On-Site Plastics Identification: trinamiX NIR

Revolutionizing plastic recycling through efficient on-the-spot sorting We provide the added value that matters most to you: reliable identification of various plastic

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For datasheets, pricing, or custom fiber access solutions, please visit:
<https://www.frindel.es>