Using a Rapid Spectrometer

Some chemical reactions can occur extremely fast and can consist of multiple steps. In order to understand the chemistry occurring, it is essential to use an analytical technique that can identify and ...

We present a major improvement to the Fourier-transform infrared (FTIR) imaging technique brought about by replacement of the commonly used step-scan spectrometer with a rapid-scanning ...

Step Scan / rapid scan: time-resolved FT-IR spectroscopy can achieve temporal resolution in ms, µs or ns range. It helps to follow very fast chemical reactions, to monitor repeatable physical processes or ...

We have developed, qualified and validated a rapid objective identity method ("Rapid ID") by Raman spectroscopy using the Bruker BRAVO handheld Raman spectrometer for 46 common raw materials ...

The different rapid-scan techniques are based upon a rapid succession of events in one mirror scan or a single event per mirror scan. Both methods of rapid-scan FTIRTRS are based on the principle of ...

Optical frequency combs are specially designed lasers that act like rulers to accurately and rapidly measure specific frequencies of light. They can be used to detect and identify chemicals ...

This review article explores recent advancements in Fourier transform infrared (FT-IR) spectroscopy, highlighting its advancing capabilities and applications across diverse scientific ...

Our algorithm is entirely based on improved data processing, that is, it can be applied to previously recorded HT multiplexed data sets.

A tabletop spectrometer designed for rapid scan and pulsed EPR is based on an AWG and 25 mm cross-loop resonator (Buchanan et al. 2018a). The first experiments were performed at 700 MHz, ...

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