#### **AOTF-NIR Solution Note 009**



# Reaction Monitoring

Know When To Stop Reacting

Brimrose solid state, robust components enable our spectrometers to be integrated directly to the reactor for real-time measurement. Our spectrometers determine when reaction is complete, minimizing production time, and cost to market of your products.

### **Proper Reaction**

Proper reaction is vital to assure batch uniformity and the integrity of industrial products. It is important that the components in each batch are uniform and homogenous. A batch that is not fully reacted can affect quality of the end product.

### **Timing and Sampling**

The most common method of reaction monitoring is through the use of timing and sampling. Traditionally, the reaction process is run for a certain amount of time with samples taken and run through an HPLC / GC to confirm that the reaction is complete. Timing methods with sampling results in increased reaction times, slower product turnovers, and wasted product.



## A Better Method

AOTF-NIR Spectrometers are non-destructive, rapid test devices for determining endpoint reactions. The technique has been proven to reduce manufacturing time with total control over the process, and to provide more understanding of the process.

- Monitor Reactions for Every Batch
- Control Your Manufacturing: Continuous monitoring provides accurate control of your reaction process.

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## A Proven Benefit

Successful implementation of a Brimrose AOTF-NIR spectrometer results in:

- Ensured Quantitative & Qualitative Accuracy
- Faster product turnover
- Reduced Manufacturing Times
- Less Wasted Product
- Assured Reaction Accuracy



Flow Cells