

## The Benefits of using an IRmadillo™ to Continuously Measure your Ethanol Production Process

The IRmadillo™ is an on-line FTIR spectrometer, which continually measures your process. Using HPLC requires taking samples off-line, which can be slow and only provides a snapshot of your process. There are many complex reactions and process steps, so it is important to analyse them in a cost-effective and meaningful way.

Below are some of the benefits you could achieve using the IRmadillo™ in your facility and acting on the real time information it delivers

Higher Drop % (Yield)	→	0.1%	→	\$1,800,000
Higher Throughput	→	0.12%	→	\$260,000
Fewer "Failed" Batches (Drop < 11%)	→	90%	→	\$484,000
Reduced Lab Analysis	→	90%	→	\$6,000
Reduce ethanol losses in beer column bottoms	→	0.05%	→	\$900,000
				<b>= \$3,450,000*</b>
				\$3,190,000** without higher throughput

**Can you afford to ignore the potential of significant extra revenue?**

For an in-depth analysis of your own facility, contact [enquiries@keit.co.uk](mailto:enquiries@keit.co.uk)

\*Results based on average responses of real customers, with an average annual production capacity of 375,000 m³.

\*\*For facilities that are unable to increase throughput.