JOIN OUR NEXT WEBINAR

What's New at Tornado: Advances in Process Raman Deployment

Tuesday, March 1, 2022

Two Webinar Times

EST	9:00am	9:00pm
PST	6:00am	6:00pm
GMT	2:00pm	2:00am*
JST	11:00pm	11:00am*
AET	1:00am*	1:00pm*

* Wednesday, March 2, 2022

SAVE YOUR SEAT

Mark Kemper
Director of Applications Development & Customer Success

REGISTER HERE FOR 9:00 AM EST | 6:00 AM PST | 2:00 PM GMT | 11:00PM JST | 1:00 AM* AET >>

REGISTER HERE FOR 9:00 PM EST | 6:00 PM PST | 2:00 AM* GMT | 11:00AM* JST | 1:00 PM* AET >>

Tornado Spectral Systems (TSS) is an innovator in process Raman spectroscopy. As developers of the game-changing High Throughput Virtual Slit (HTVS™) technology, we have made a strong impact on the market with respect to demonstrably superior performance compared to conventional Raman systems. This has enabled our customers to achieve comparatively lower limits of detection and/or to achieve faster measurements, both resulting in the potential to augment process control. The performance enhancements facilitated by HTVS™ potentially take such control to a new level with improved process understanding, detection and correction of spurious events and confirmation of acceptable process operation.

However, performance is of limited value if it cannot be properly deployed in process environments. Since the introduction a few years ago of our Hyperflux™ PRO Plus Raman analyzer, a process-oriented device, Tornado has been working on improving customer experience and increasing user confidence with respect to process deployability of TSS equipment. Product introductions to broaden deployment have been the core of our focus. The prime example of this is our OPIS™ unit (introduced in early 2020 and enabled by our patented HTVS™ technology), a device with a unique approach designed to comply with ATEX requirements in an optically inherently safe manner (complete with <op is> certification) suitable for all ATEX zones (zones 0, 1 and 2). Our 8-channel multiplexing capability is another example of enhanced deployability that we have developed in the recent past to give customers maximum flexibility for their processes.

Continued investment in development over the past year at Tornado has seen several enhancements that promise to take customer experience to a new level. This is highlighted by the introduction of the TSS Process Guardian™, a process-ready 19-inch rack mount spectrometer with embedded control and new ease-of-maintenance features that allow for reliable deployment in a process environment. Further developments in process communication are highlighted by the addition of an OPC UA protocol to add another option to go along with our longstanding ModBus capability. Incorporation of a new embedded prediction engine based on Peaxact multivariate analysis software allows broader capability and another choice when offered alongside our existing SIMCA (Sartorius) prediction engine.

Additionally, we have made the following developments:

- Enhanced integratability with enterprise software partners with the eminent release of a driver for use with SiPAT (Siemens); other established partners include synTQ (Optimal) and PharmMV (Perceptive)
- Partnership with high quality providers of complementary hardware technology, including Technobis, a provider of crystallization process development equipment; adding to our valued partnerships with Sartorius (bioprocessing) and Blazemetrics (particle characterization)
- Increased application proof statement portfolio due to our focus on downstream bioprocessing, in-line gas phase monitoring, and in-line feed frame measurements for continuous pharmaceutical manufacturing
- Exploring new applications in burgeoning markets, such as monitoring supercritical fluid extractions in CBD production

We are making headway toward showing customers what can be achieved through the power of HTVS™ over and above what has been done to date with conventional Raman spectrometers.

From the description above, it is clear there is a great deal of exciting activity taking place that will undoubtedly add substantial value and an infusion of enhanced optimism to the existing process Raman landscape. We invite you to hear more about these developments in the 2022 Q1 installment in our webinar series, **"What's New at Tornado"**. You'll develop an appreciation for Tornado's continued evolution to a leadership position in this market.

tornado spectral systems