ID: Type: **Oral**

and Unattended Spectroscopic Operation and Analysis with the Mirion Data Analyst

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A number of applications benefit from continuous and repeated gamma ray spectral acquisition, analysis, and reporting. In these cases, important criteria include: no lapses in data acquisition during monitoring, full data analysis and reporting can be applied in real time, the spectra and results are stored for post analysis review, and notifications are available when concentration levels rise above predetermined limits. The Data Analyst is a small device designed to accommodate these needs and provide the flexibility needed to configure measurement, data collection, and data analysis for a variety of applications. Continuous acquisition is accomplished with novel software and hardware which allows for unattended acquisition, analysis, and storage of data over multiple measurement workflow definitions. Since multiple averaging times are allowed for a single data stream it is possible to attain swift reaction times in parallel with very low minimum detectable concentrations. The analysis protocol leverages existing Genie 2000 analysis algorithms and applies them in real time to each workflow as it completes an averaging interval. The device also accommodates the use of analog inputs, GPIO communication, GPS location, and either wired or wireless communications. The capabilities of the device as well as a number of applications will be discussed.

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