

Session 1: Spaceport and Range Technologies

1B - Technology Solutions Delivered to Operational Space Programs

Mass Spectrometer-based Hazardous Gas Detection for Aerospace Applications

The Hazardous Gas Detection Lab at Kennedy Space Center has a history of developing mass spectrometer-based instrumentation for the detection and quantification of the cryogenic fuels used by Shuttle and hazardous gases in general. Presented is a talk focusing on the past, present and future of the lab. In the past, the lab had designed, developed and manufactured very specific gas analysis instruments for Shuttle processing. More recently, the lab has been involved in pushing the limits of mass spectrometer-based gas analysis instruments by making smaller, more robust systems. The experienced gained will allow the lab to develop more advanced gas analysis instrumentation to allow for improved safety in the future, for Shuttle, ISS, or future vehicles.

C Richard Arkin, Ph.D.

Hazardous Gas Detection Lab (321) 867-6758
ASRC Aerospace, ASRC-14 FAX 867-6933
Kennedy Space Center, FL 32899