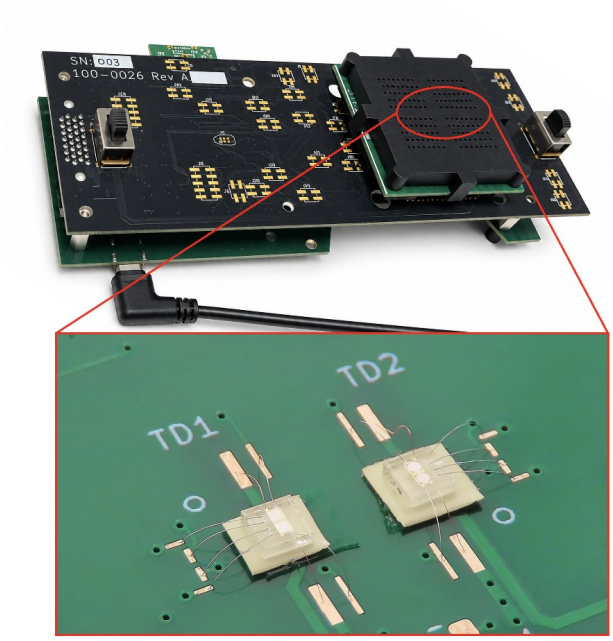
Trace Hydrogen (H_2) Sensor



DESCRIPTION

The Serinus Labs hydrogen sensor utilizes a proprietary work-function change technology integrated with a CMOS read-out architecture. The platform supports hydrogen characterization from 10 to 10,000 ppm and is designed for selective response, environmental robustness, and long-duration stability. It can be used as a wired sensor for system integration or configured as a wireless sensing node for distributed monitoring.

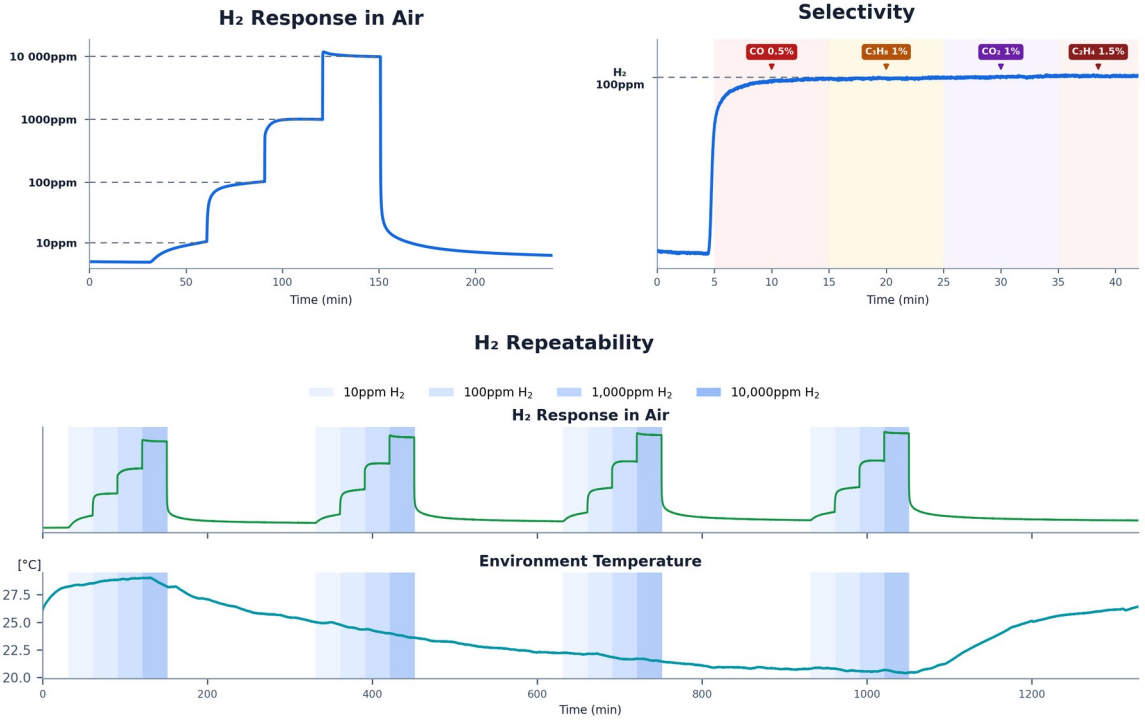
FEATURES

- Patented sensing technology
- Hydrogen sensitivity from 10 to 10,000 ppm
- Adaptive dew-point heating to mitigate relative humidity effects
- Highly selective against CO 0.5%, C_3H_8 1%, CO_2 1%, C_2H_4 1.5%
- Active drift compensation with built-in physical reference sensor

APPLICATIONS

- Trace hydrogen detection for Li-ion battery thermal runaway mitigation
- Trace hydrogen detection for early transformer failure monitoring
- Trace hydrogen for medical diagnostics (breath monitoring)
- Options: can be configured as battery operated SmartMesh wireless networks for in-air hydrogen leak detection & localization
- Drone-based monitoring

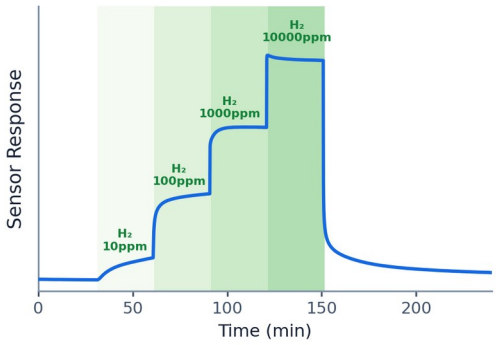
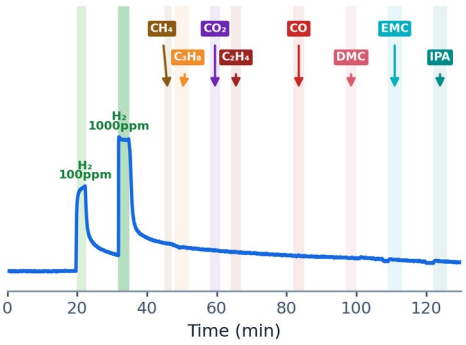
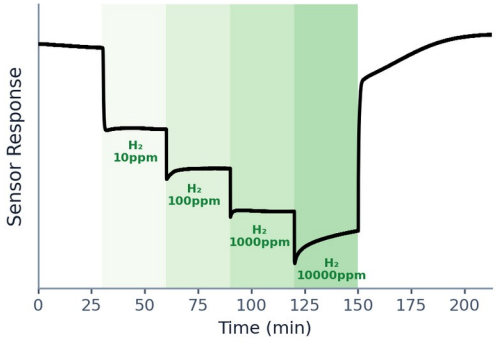
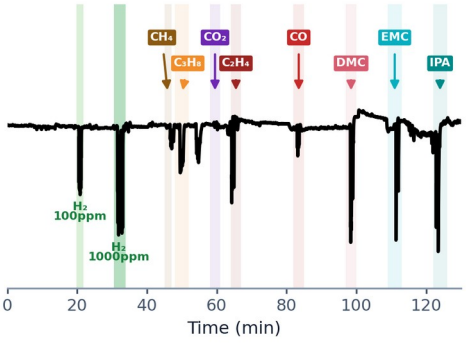
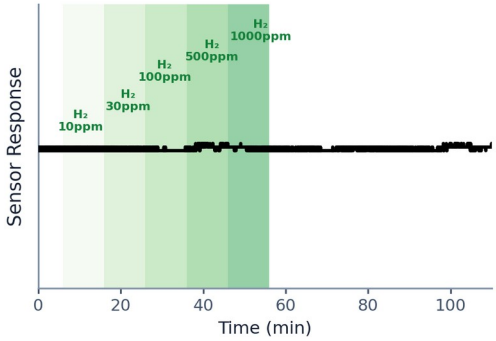
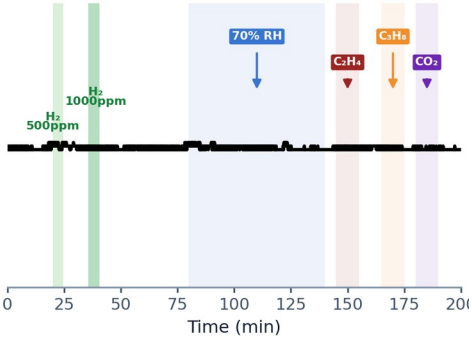
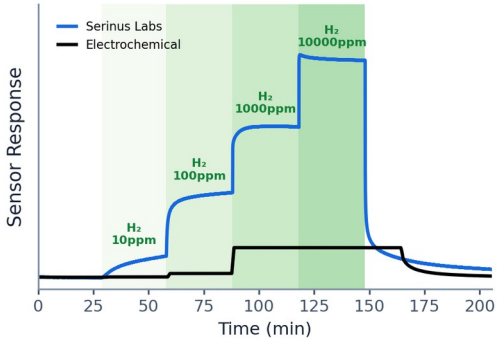
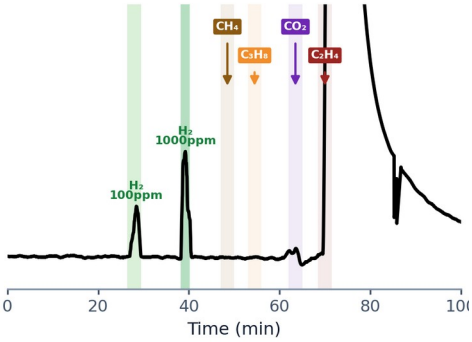
Representative Performance



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Hydrogen Sensor Technology Comparison

Representative hydrogen response and cross sensitivity behavior

TECHNOLOGY	H_2 SENSITIVITY	SELECTIVITY
SERINUS LABS H_2 SENSOR		
Commercial Metal Oxide (MOX) Semiconductor H_2 Sensor		
Commercial Thermal Conductivity (TC) H_2 Sensor		
Commercial Electrochemical (ECHEM) H_2 Sensor		

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