

**Wednesday March 15, 2023**

## **OSSC Combined In-Person and Online Event**

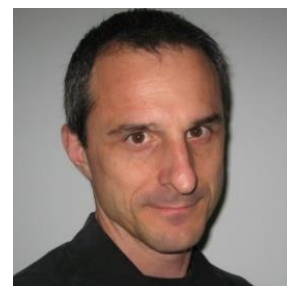
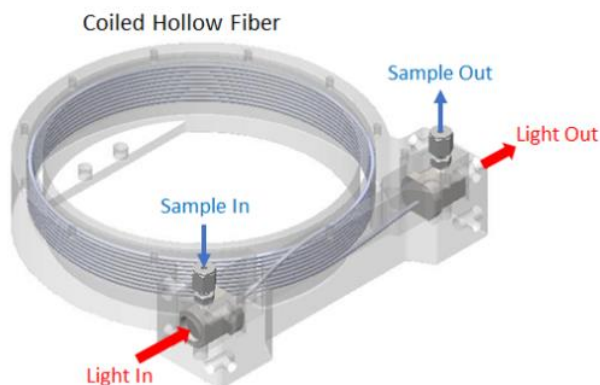
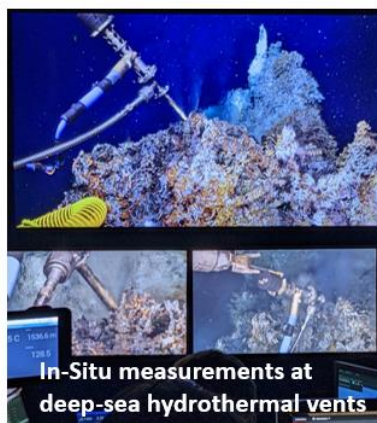
### **"Laser-based gas analysis in a hollow core fiber-optic: land, sea, air, and space (from the bottom of our ocean to a moon of Saturn)"**

**Jason Kriesel, Ph.D., President, Guiding Photonics and Lead Scientist, OKSI**

#### **Abstract:**

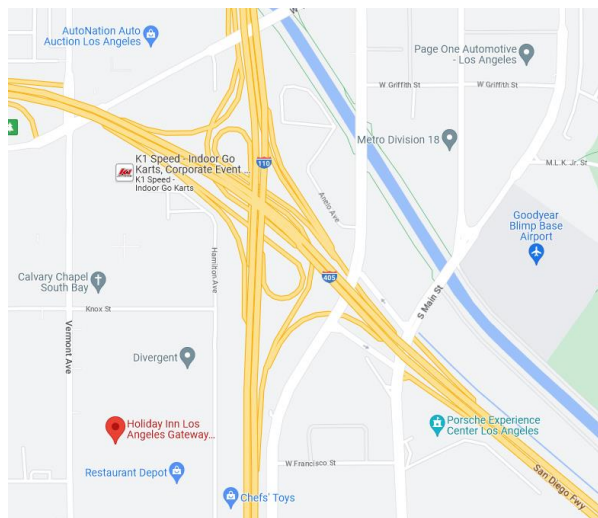
I will describe an innovative gas sensing platform that utilizes mid infrared laser absorption spectroscopy in a hollow core fiber. Recent systems have been developed and utilized for a variety of applications including measuring methane emitted from deep sea vents and carbon monoxide from a drone above a forest fire. Current efforts are underway to develop planetary systems with target applications including water analysis on our moon and methane analysis in the plume of Enceladus.

In this talk I will discuss the optical design, system development, the utilization in the various field scenarios and the scientific information that can be obtained by performing in-situ trace gas and isotope measurements.



#### **About Our Speaker**

Jason earned a B.S. in Physics from UC Irvine followed by a Ph.D. in Physics from UC San Diego. He then received an NRC post-doc fellowship to conduct research in Dave Wineland's group at NIST-Boulder. He has been with OKSI in Torrance since 2002 and currently leads the Environment Sensing Division. Jason is also President and co-founder of Guiding Photonics (also in Torrance), which is a spin-off company focused on hollow core fiber optics and gas sensors.



### **OSSC Combined In-person and Online Event March 15, 2023**

**Reception: 6:00pm Dinner: 7:00pm Presentation: 8:00pm**  
**Dinner - Members: \$35 Non-Members: \$45 Students: \$10**

**Late Fees of \$10, after 11:59 pm March 10**

**Venue: Holiday Inn Los Angeles Gateway-Torrance  
19800 S. Vermont Ave, Torrance, CA, 90502**

**No fee for in-person without dinner or for online attendance**

**Online Registration until Tue, March 14, 2023**

**[Register Here for In-Person and Online](#)**

**[www.oss.org](http://www.oss.org)**

**Please post and invite friends to attend.**