THE UNIVERSITY OF ARIZONA
Wyant College of Optical Sciences

INDUSTRIAL AFFILIATES WORKSHOP

STUDENT SPEAKER PROFILE

CHENG LI, PH.D. STUDENT

Wyant College of Optical Sciences
Advisor: Tsu-Te Judith Su

Tuesday, February 15, 2022 | 11:30 a.m.

Title: "High Sensitivity and Selectivity Whispering Gallery Mode Chemical Gas Sensor"

Abstract: Over the past few decades, a growing number of toxic and hazardous chemicals have appeared in the form of gases in industry, on the battlefield, in laboratories, or in other scenarios. We use a high sensitivity and selectivity system known as FLOWER (frequency locked optical whispering evanescent resonator) to rapidly detect trace amounts of three different vapors using polymer-based microtoroid.

Bio: Cheng Li is a Ph.D. candidate in Dr. Judith Su's lab. His research focuses on ultra-sensitive and selective optical whispering gallery mode microcavities and their biochemical applications. He is currently investigating the use of frequency locked optical whispering evanescent resonator (FLOWER) system for low concentration gas detection. In addition, his research also includes improvements and enhancements to the FLOWER.

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