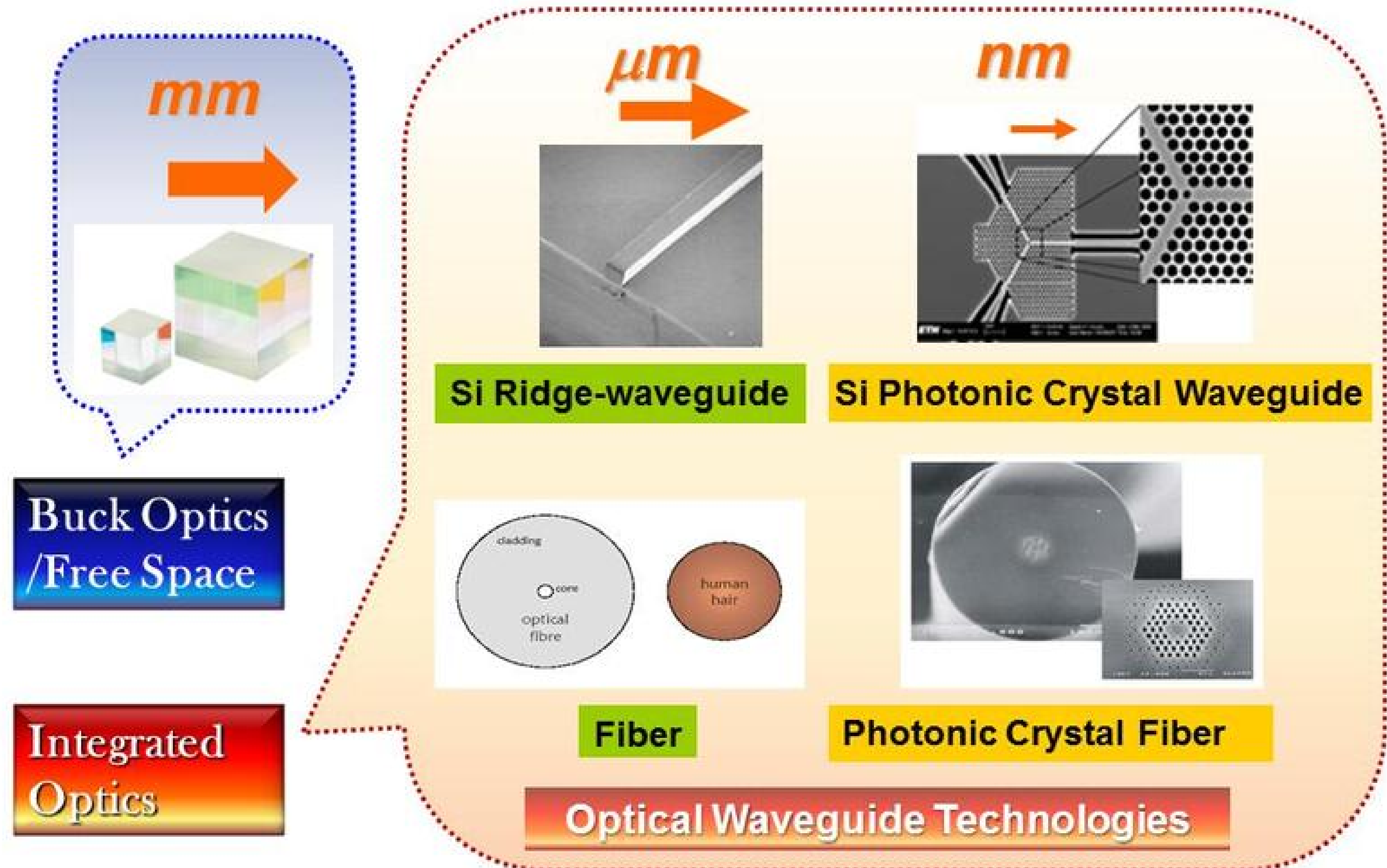


積體光學實驗室 Q401-2

負責老師: 涂瑞清 (Ruey-Ching Twu)

E-MAIL: rctwu@stust.edu.tw

Introduction to Integrated Optics

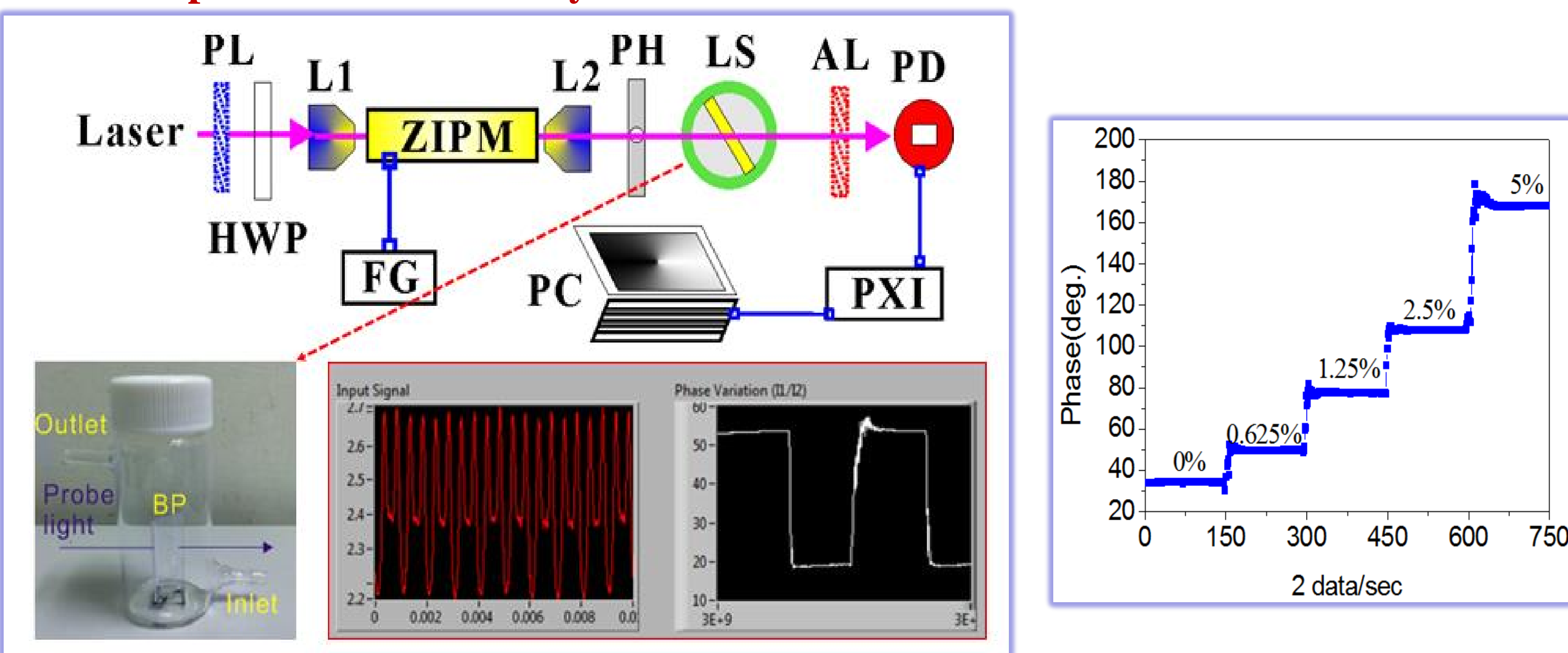


Research Fields

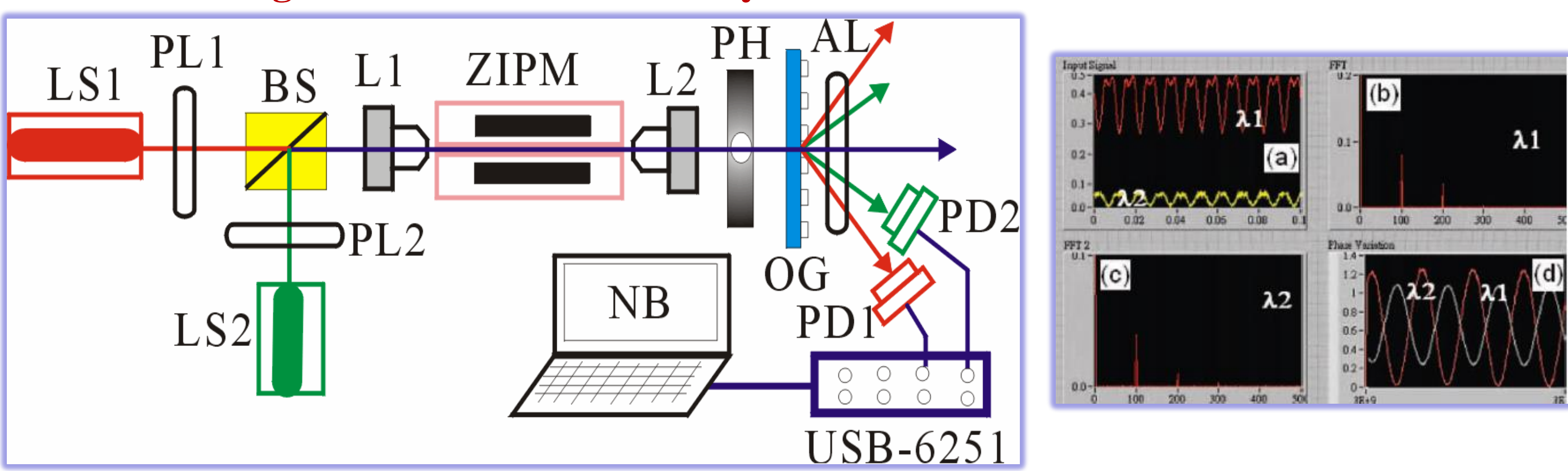
- **Zn-Indiffused LiNbO₃ Optical Waveguide Devices**
 - ➔ Polarization Control & Phase Modulation
- **Waveguide Phase modulator for Optical Metrology**
 - ➔ Heterodyne & Homodyne Interferometry
- **LabVIEW-Based Integrated Photonics Measurement Systems**
 - ➔ System Development: Single-Channel, Multi-Channel, Dual-Wavelength, Dual-Polarization Platforms
 - ➔ Optical Metrology: Photorefraction, Refractive Index, Angle, Displacement, Roll Angle, Optical Activity, Fluidic Optics, Temperature, Thermo-Optics, Thermal Conduction
- **Integrated Photonics Sensing Chip**
- **Optical Communication Waveguide Devices**

LabVIEW-based Metrology Platform (Optical Homodyne Interferometry)

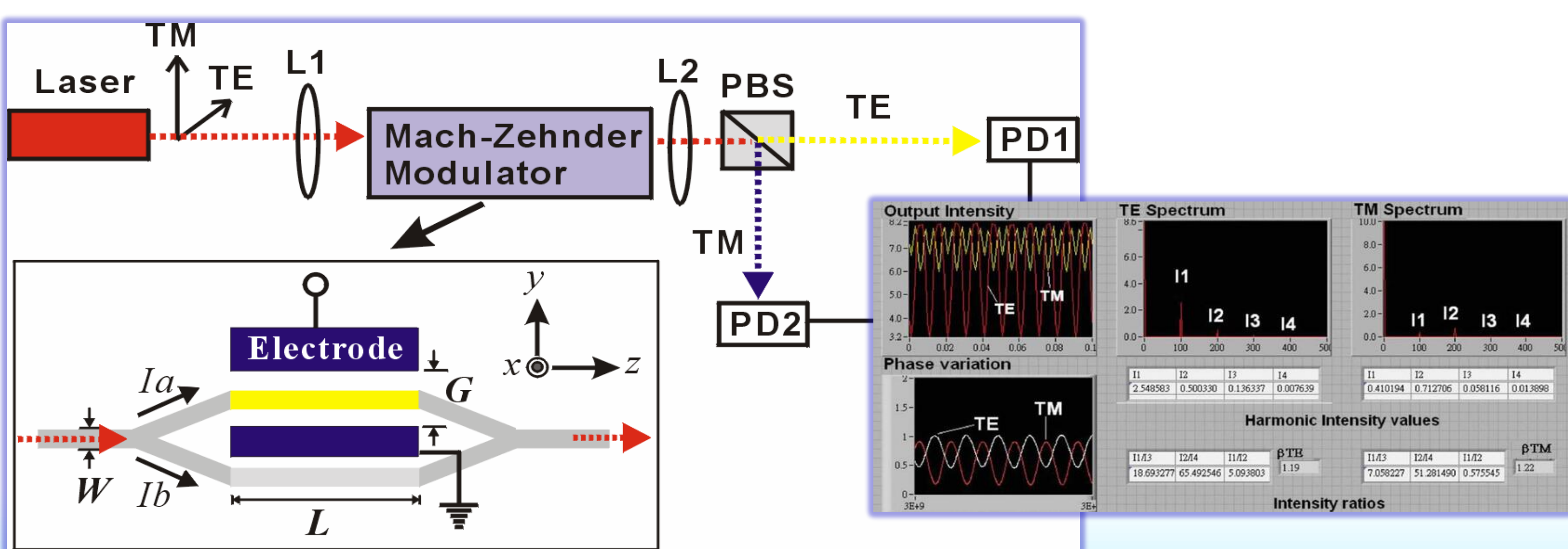
Fluidic Optics Measurement System



Dual-Wavelength Phase Measurement System

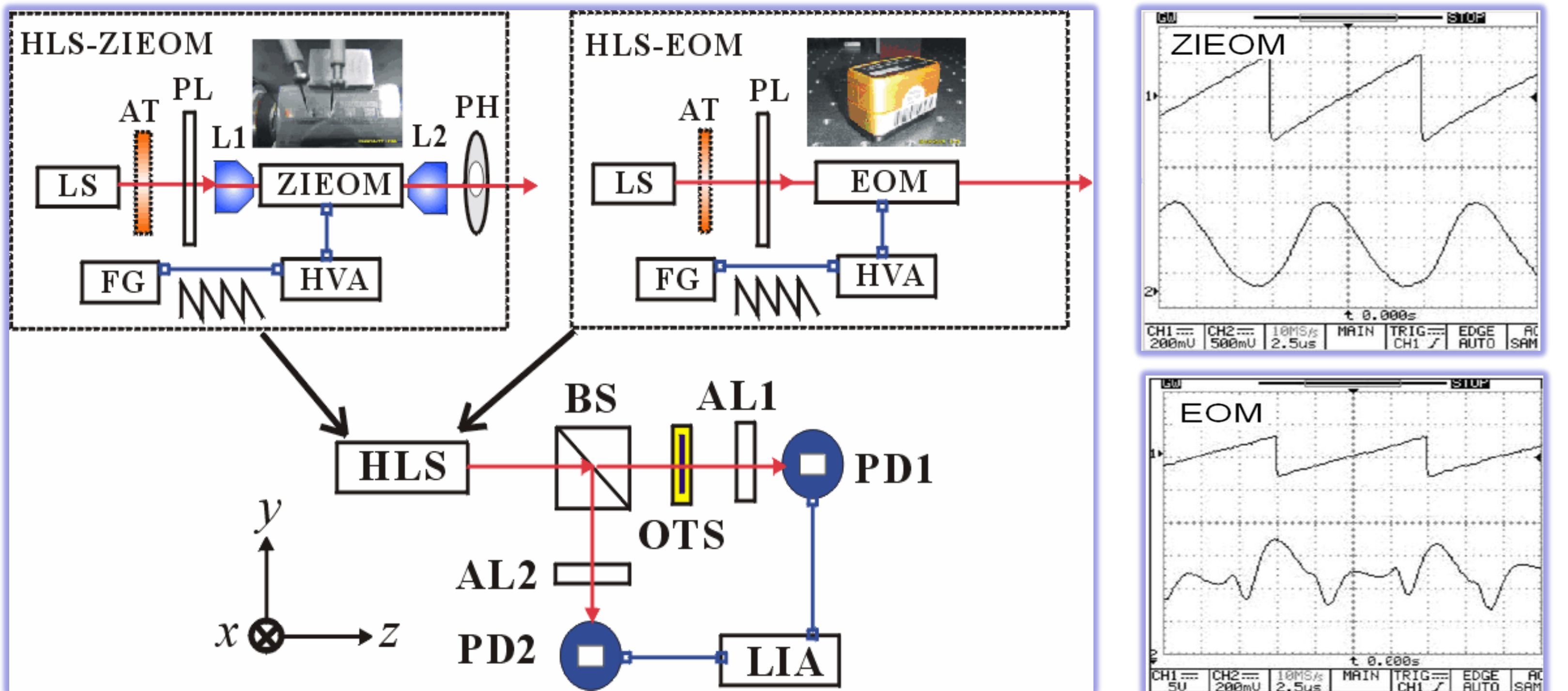


Dual-Polarization Phase Measurement System

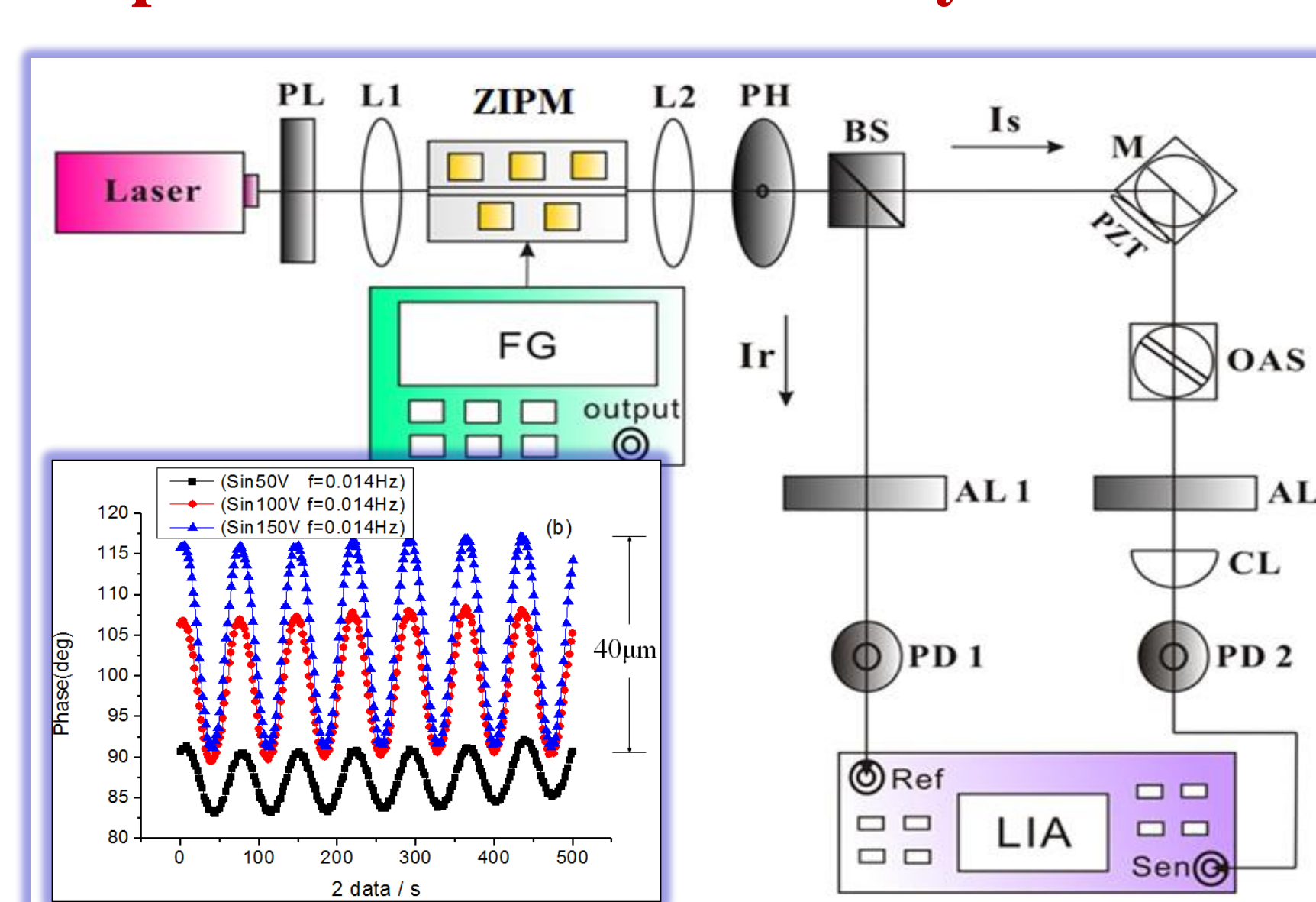


Optical Heterodyne Interferometry Based on Waveguide Phase Modulator

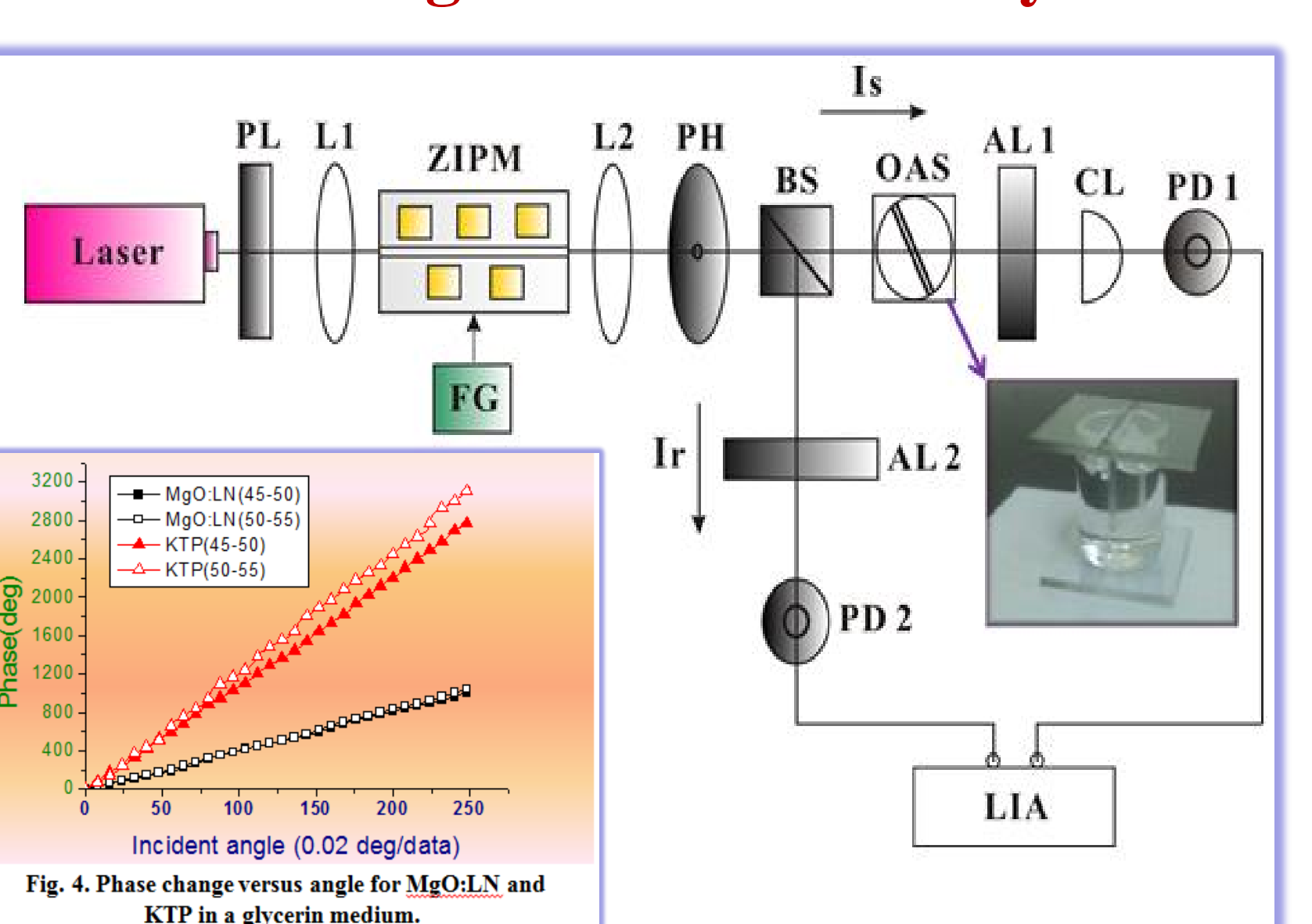
Homemade ZIEOM Performance Better than Commercial EOM



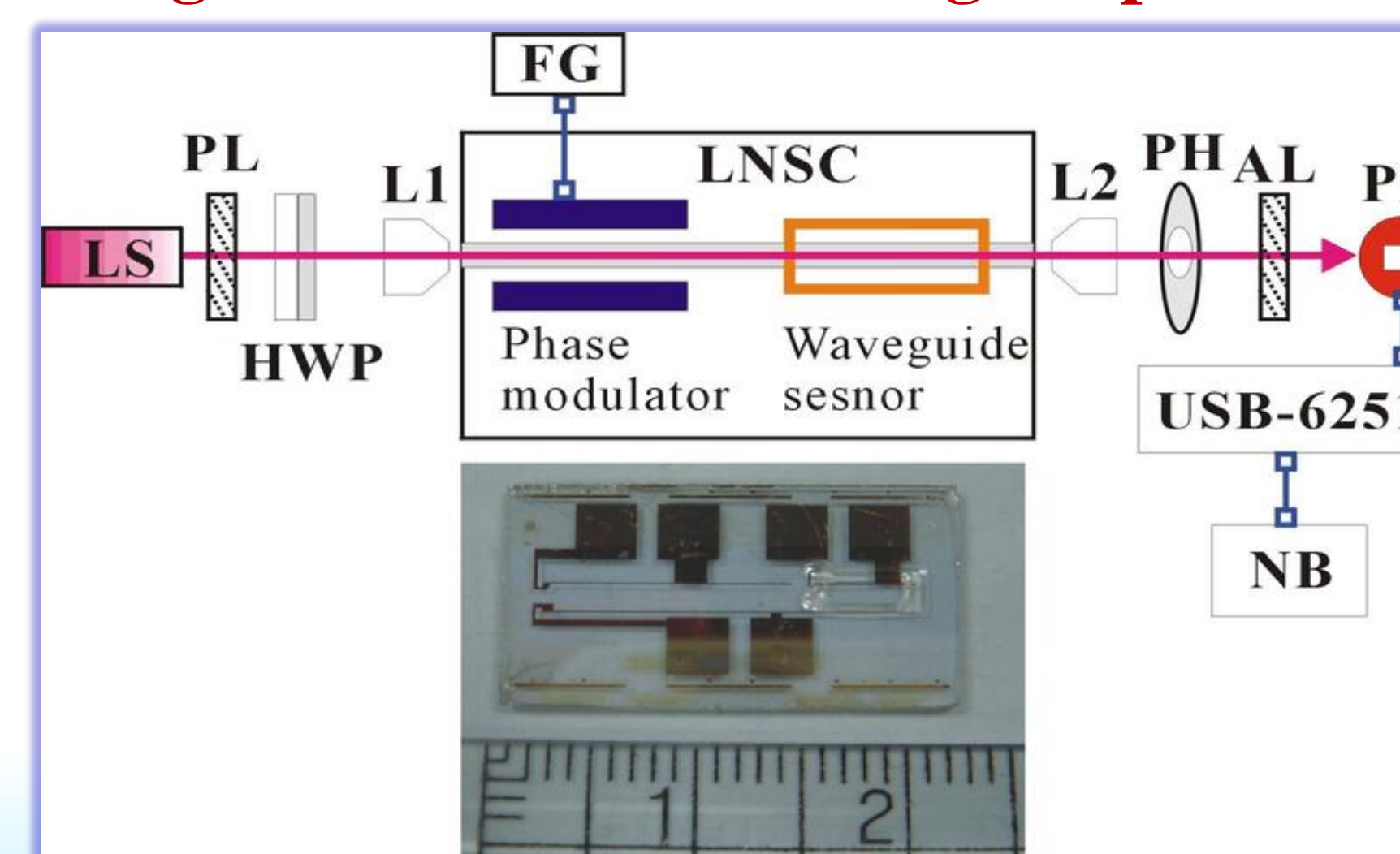
Displacement Measurement System



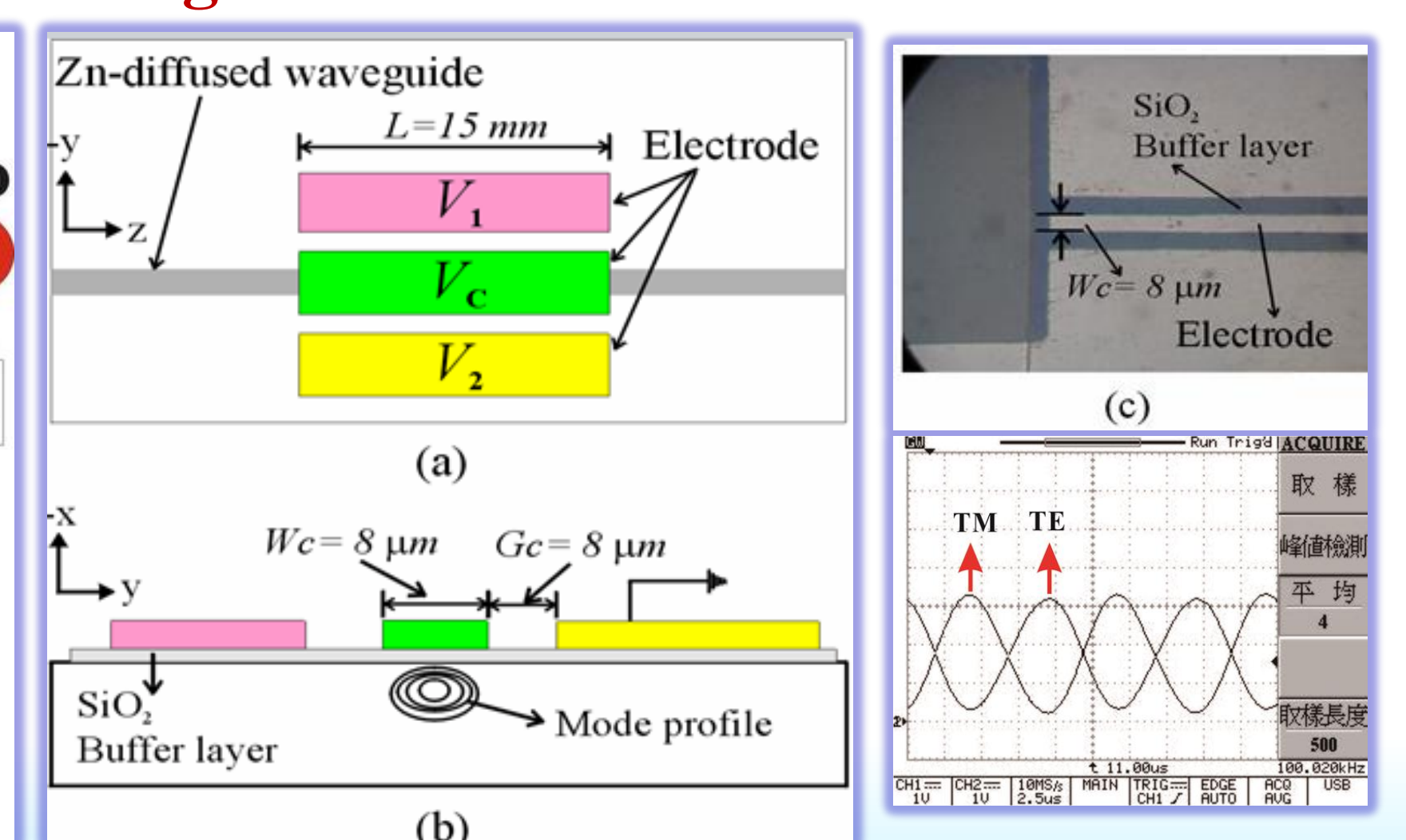
Rotation Angle Measurement System



Integrated Photonics Sensing Chip



Integrated Polarization Converter



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