Ten Years of Interdisciplinary Lidar Applications at SCNU, Guangzhou

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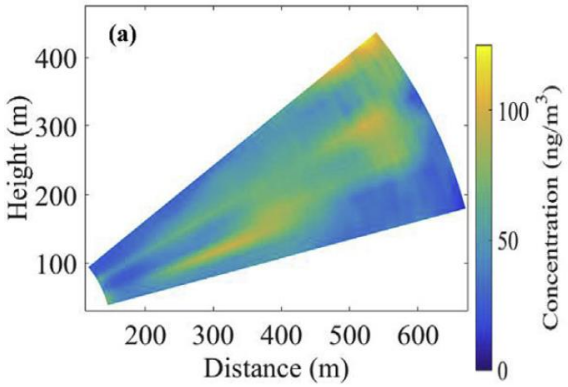
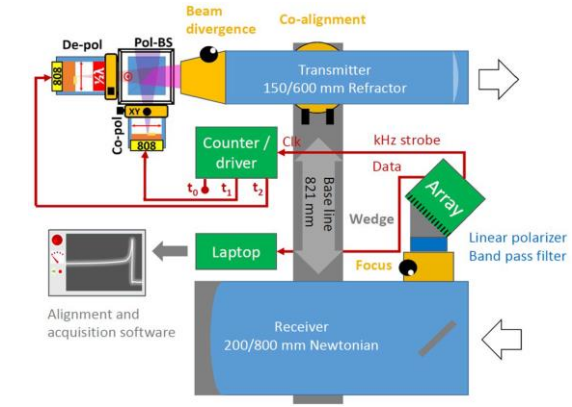
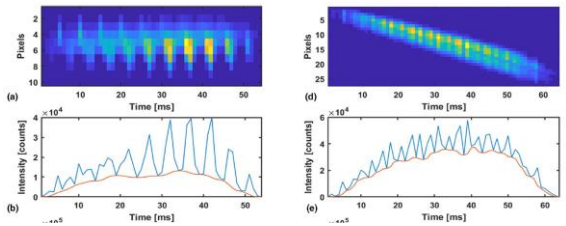


Atomic Hg DIAL monitoring

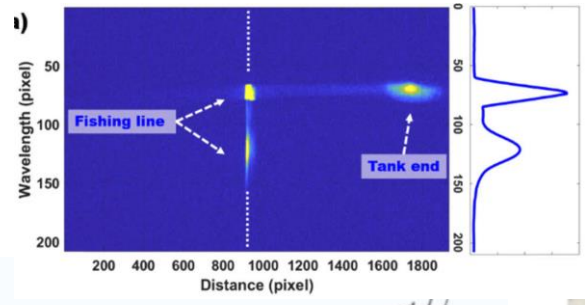
Env. Pollut. **240**, 353 (2018)

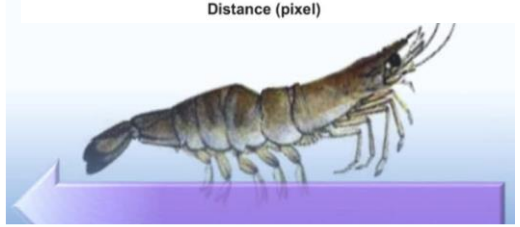


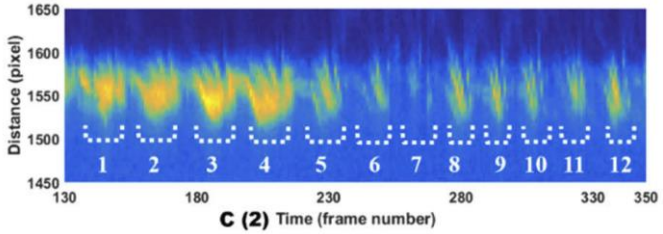


CW lidar insect monitoring

J. Appl. Entomol. **144**, 161 (2020)

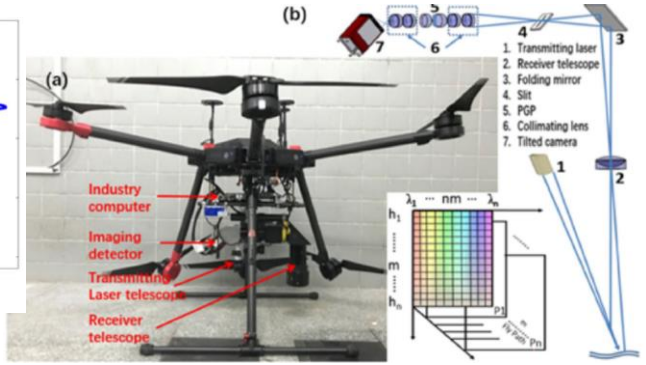


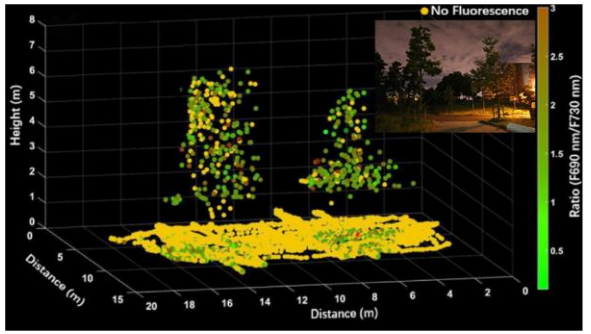




CW under-water lidar imaging

Opt. Express **28**, 2600 (2020)

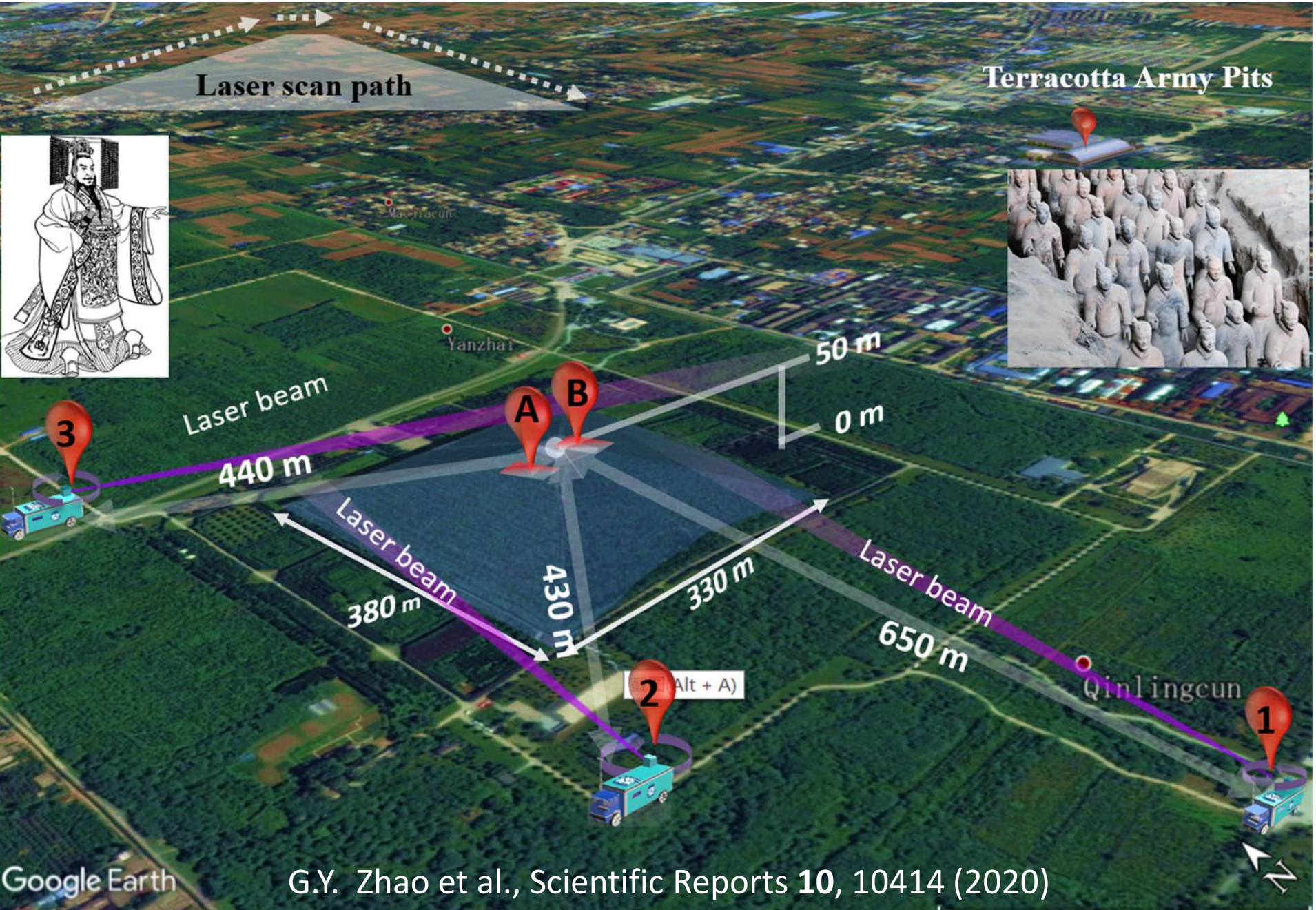


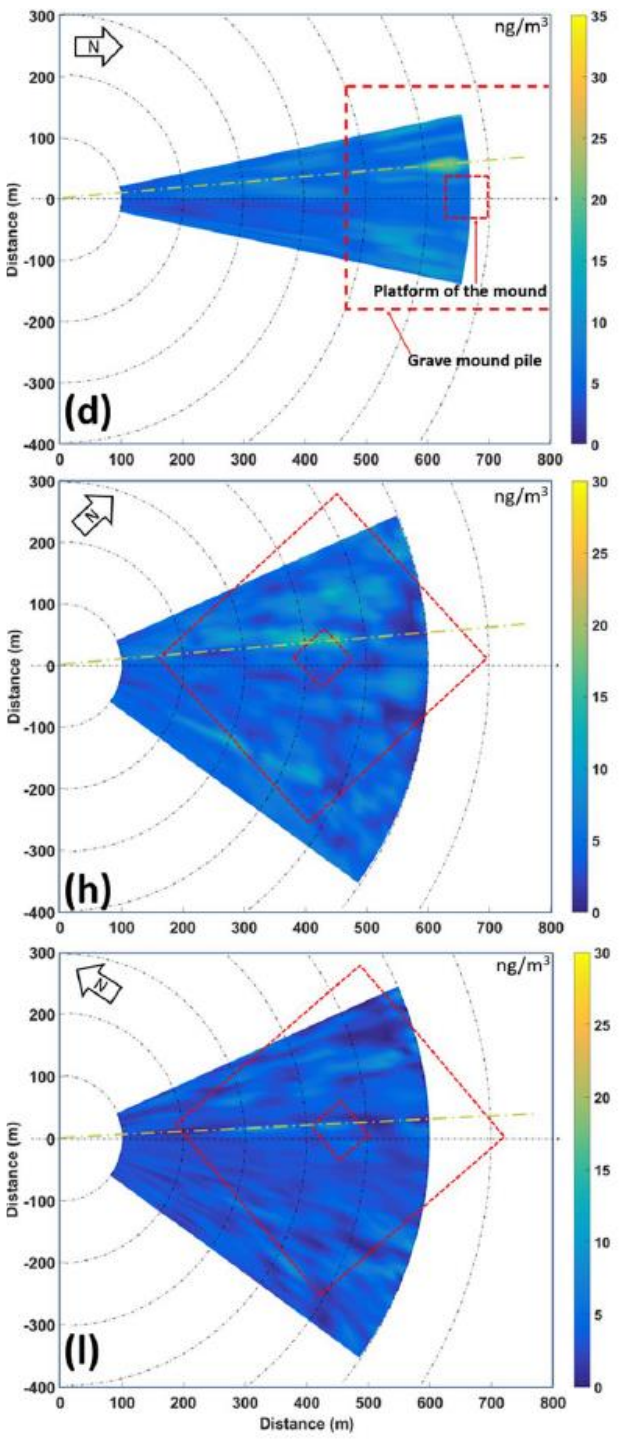


Fluorescence from trees by drone

Appl. Phys. B **124**, 207 (2018)

Mercury emission from “Terracotta army emperor” tomb, Xi´an



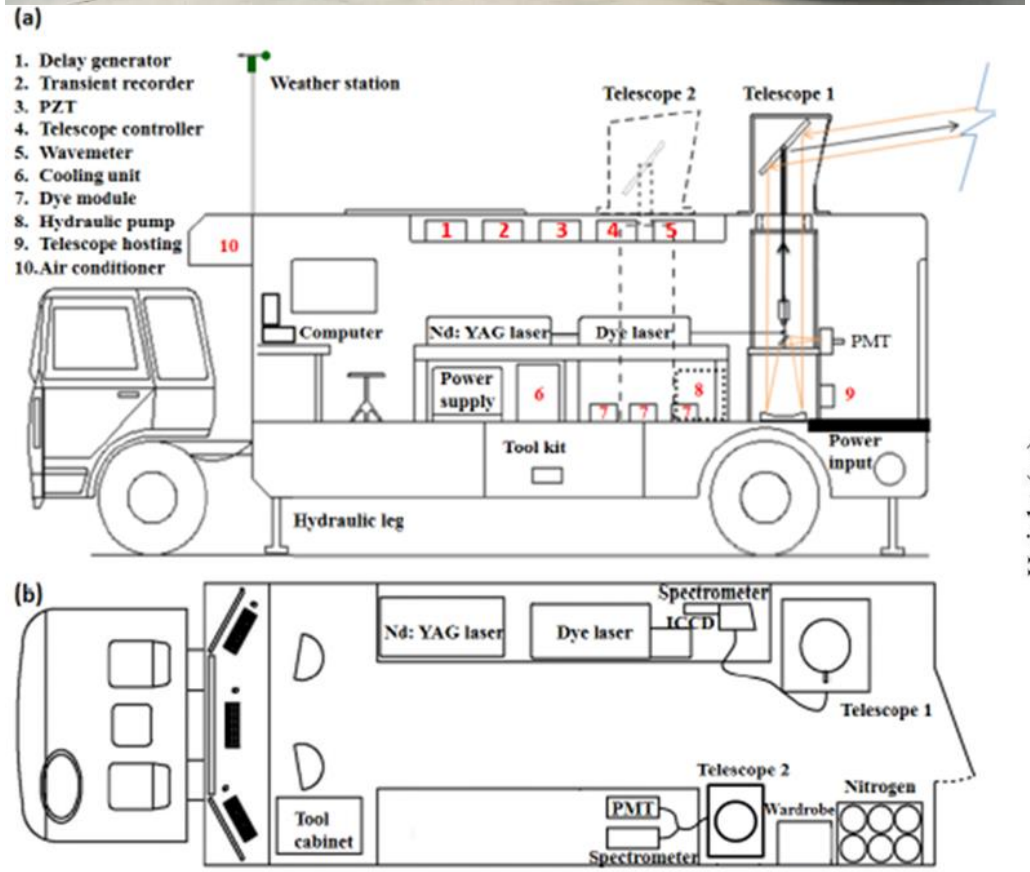


G.Y. Zhao et al., Scientific Reports **10**, 10414 (2020)

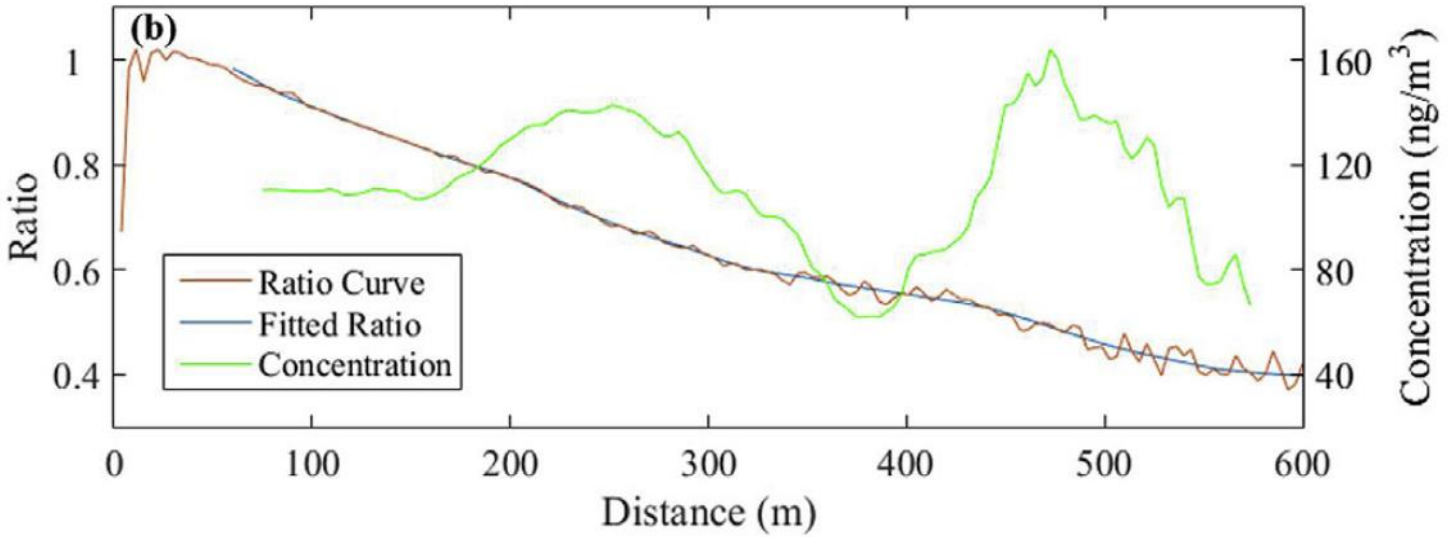
SCNU Mobile Lidar Laboratory

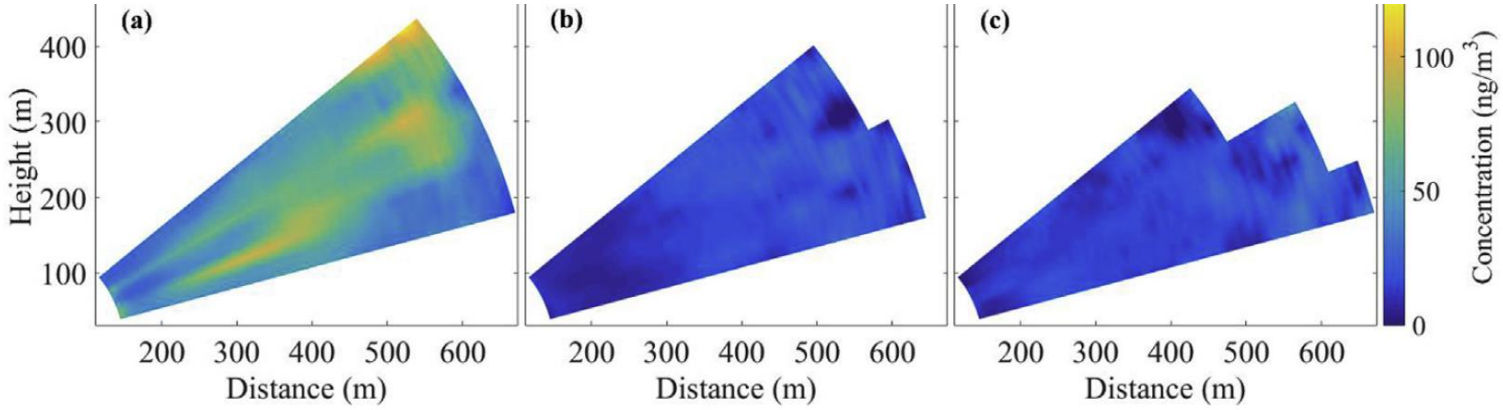
Versatile platform for field spectroscopy

Speciality: DIAL on atomic Hg



Example of Monitoring in Wanshan mining area, Guizhou



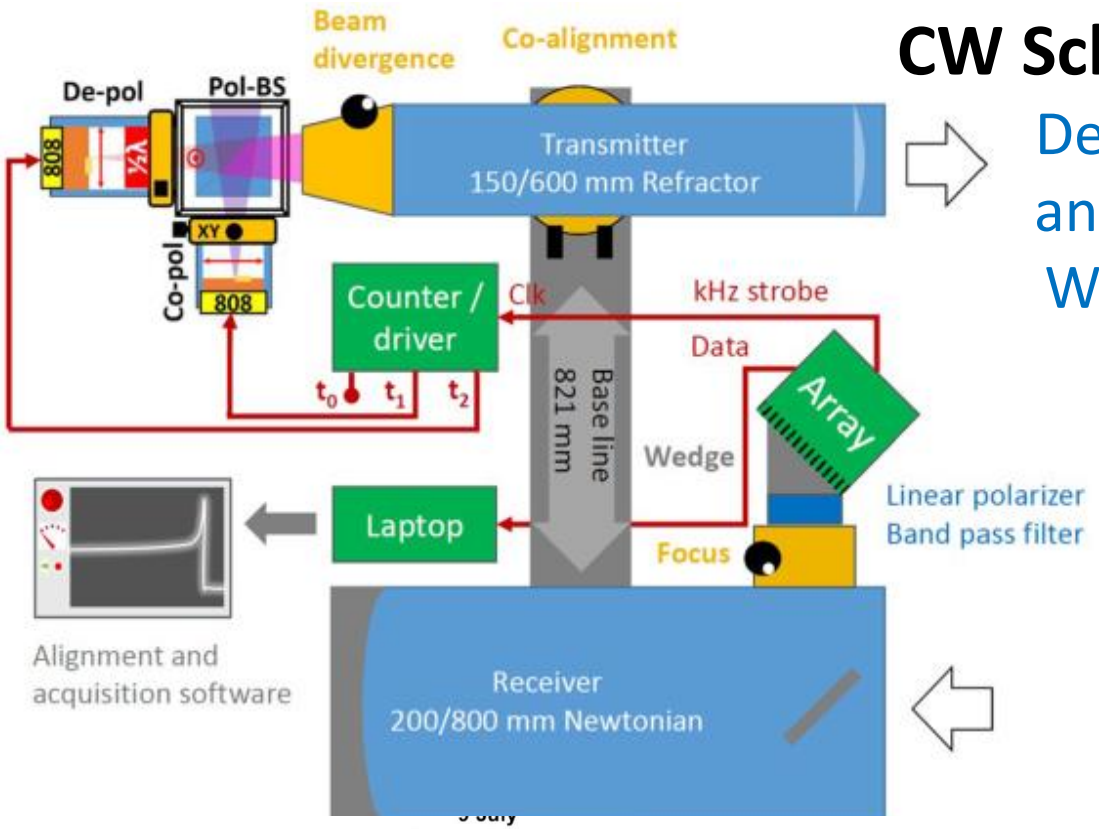


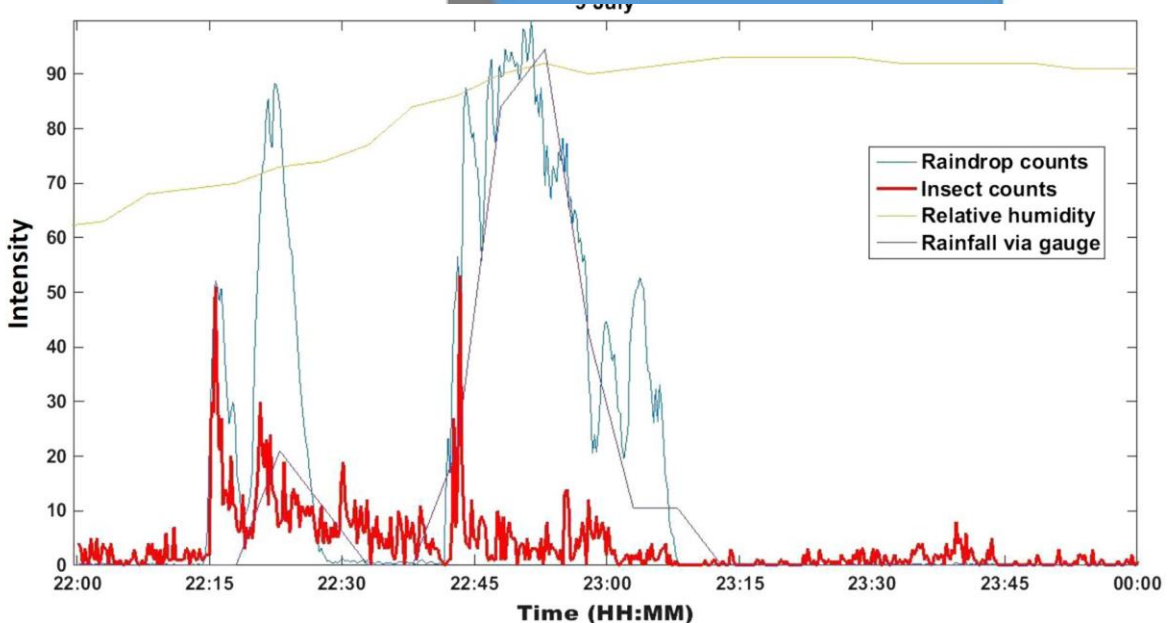
Applied Optics **65**, 1506 (2017); Environmental Pollution **240**, 353 (2018)

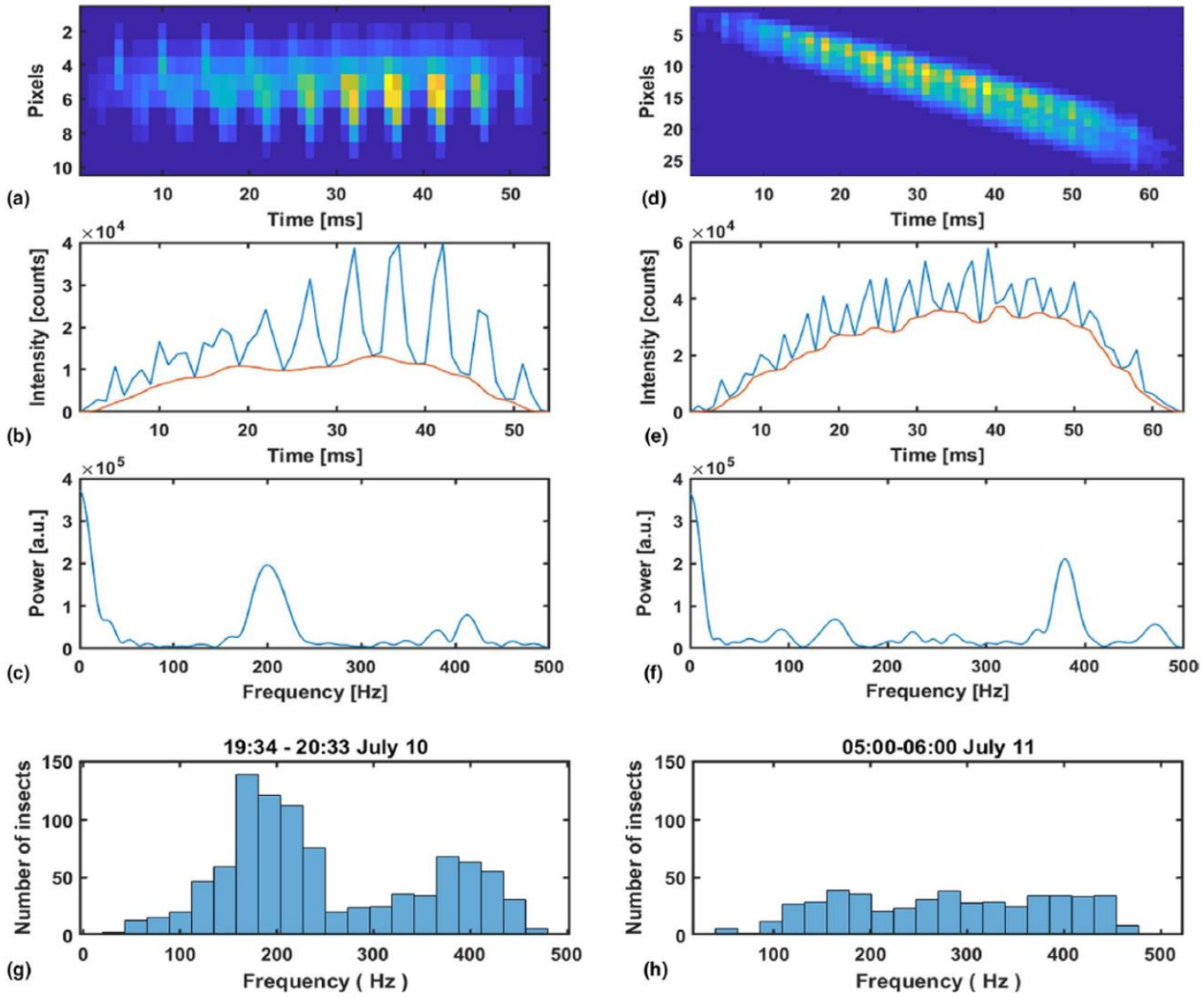
CW Scheimpflug lidar monitoring of flying insects

Depolarization measurements yield surface structure and allows separation between insects and raindrops

Wing-beat frequency is a characteristic of insects



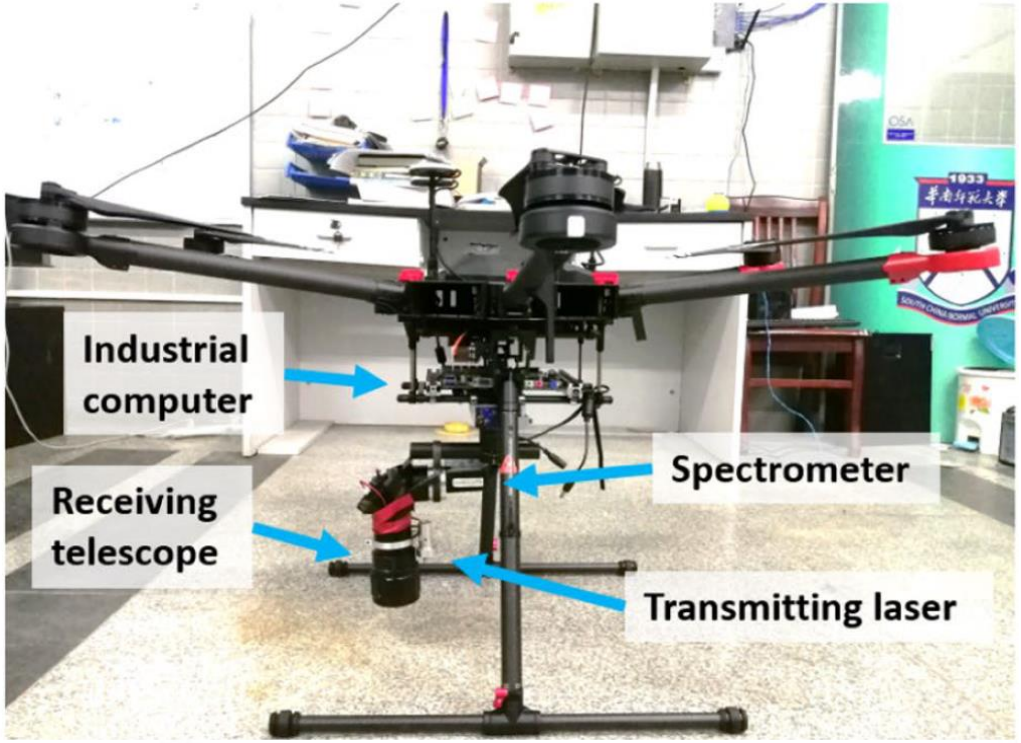


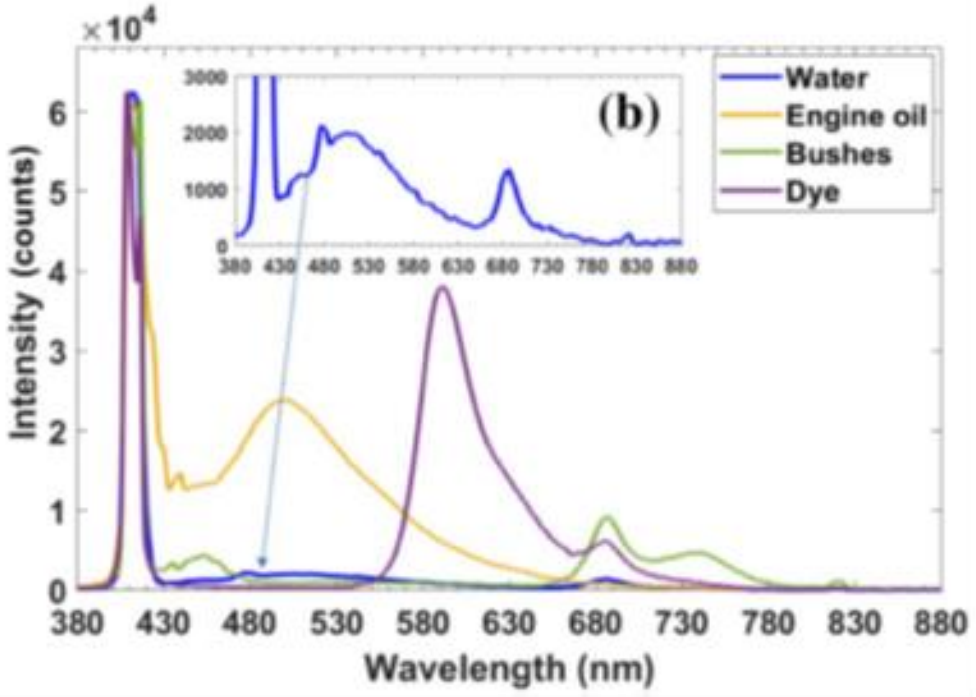


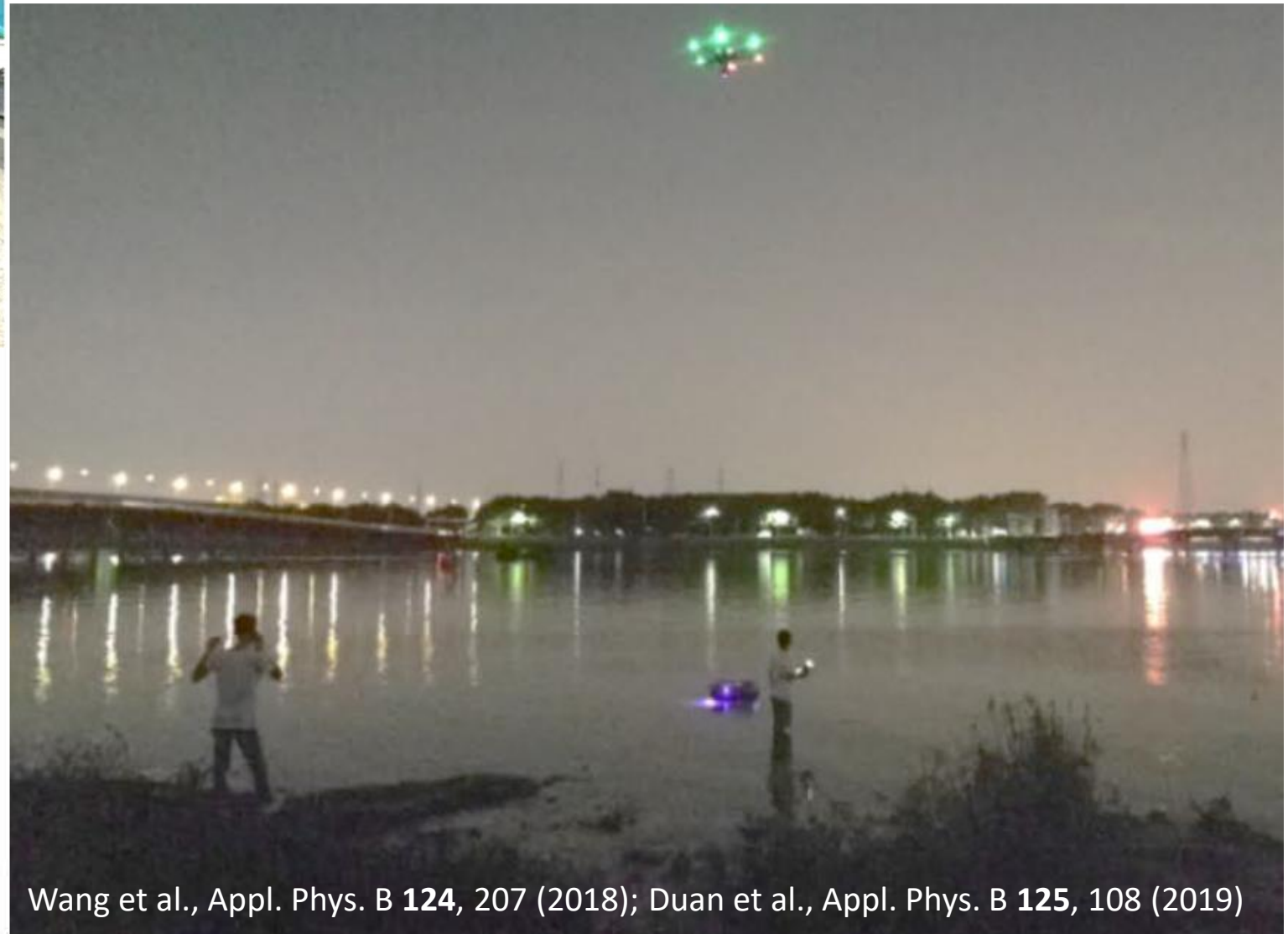
Appl. Phys. B **123**, 211 (2017); J. Appl. Entomology **144**, 161 (2020)

Drone-based monitoring of water pollutants using laser-induced fluorescence (LIF)

Oils, Dissolved organic matter (DOM), Algae







Wang et al., Appl. Phys. B **124**, 207 (2018); Duan et al., Appl. Phys. B **125**, 108 (2019)

Close-range Laser Remote Sensing – Water and Fruit LIF

Lu et al.: Applied Optics **59**, C1 (2020); Zhang et al., SPIE **12165**, 1216403 (2022)