

UCI CI-SS Laboratory Exercise

OH Planar Laser Induced Fluorescence (PLIF) in a coflow diffusion flame.

Room: Engineering Gateway 1115

Laser diagnostics and spectroscopy are essential to obtain insights from reacting flows in a non-intrusive manner. Fluorescence and chemiluminescence are significant diagnostic tools in combustion research. OH PLIF and the naturally occurring OH chemiluminescence (OH*) provide beneficial insights regarding the physical extent and progress of combustion, particularly as regard heat release zones and reaction zone markers.

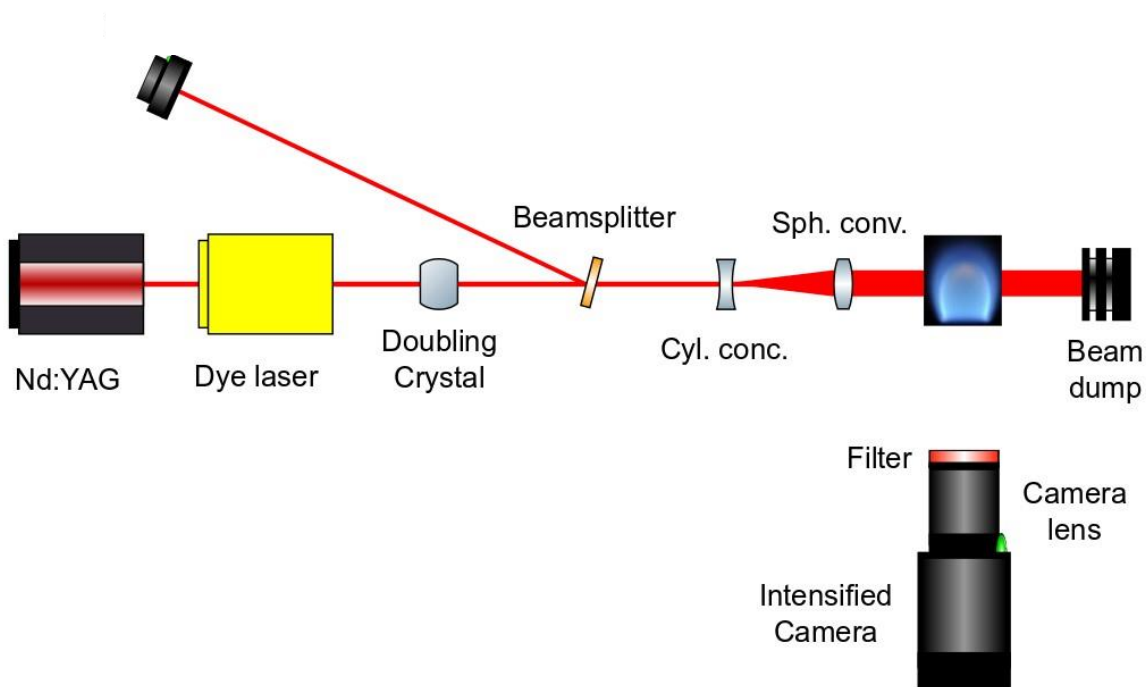


Figure 1: OH PLIF experimental setup.

The laboratory exercise goals will be to familiarize with the PLIF technique and understand the equipment necessary to perform PLIF experiments. We will also understand the challenges associated with providing quantitative data and making temperature measurements with PLIF.