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**1**  
2019 8 31 9 29

**2**

LIF

**3**  
8 31

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5.2

LIF(Laser Induced Fluorescence)

LIF

1 LIF

Figure 1. principle of LIF

If : Q : IO :  
: C : L :  
y

G C L

5.3

2 LIF  
50mm  
3 CCD

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VCO(Valve Covered Orifice)

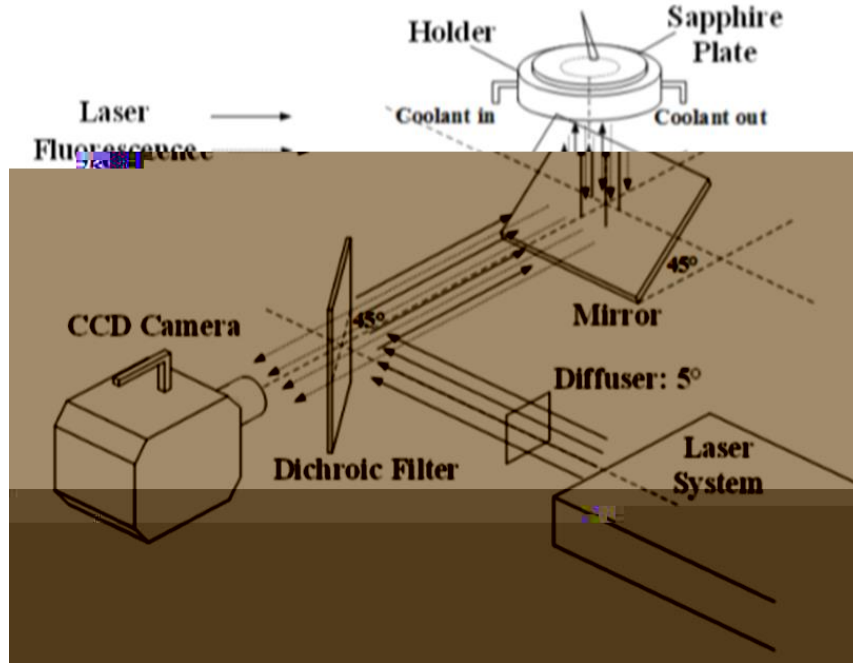


Figure 2. Experimental setup for LIF

1

0.2 0.6 1.0MPa 3

25 60 90 3

Table 1. Experimental condition for LIF

Conditions		
Ambient Pressure, $P_a$ (MPa)	0.2, 0.6, 1.0	
Ambient Temperature (K)	Room Temperature	Air
Injector Type	one hole	
L/D	1.5	
Injection Pressure, $P_{inj}$ (MPa)	10	Injection
Fuel temperature (°C)	25, 60, 90	Temperature
Fuel	Hexane	
Distance between injector and wall	50mm	Distance
Injection duration	3.0ms	

5.4

3                      25                      5ms  
 0.2 0.6 1.0MPa  
 0.2MPa

3

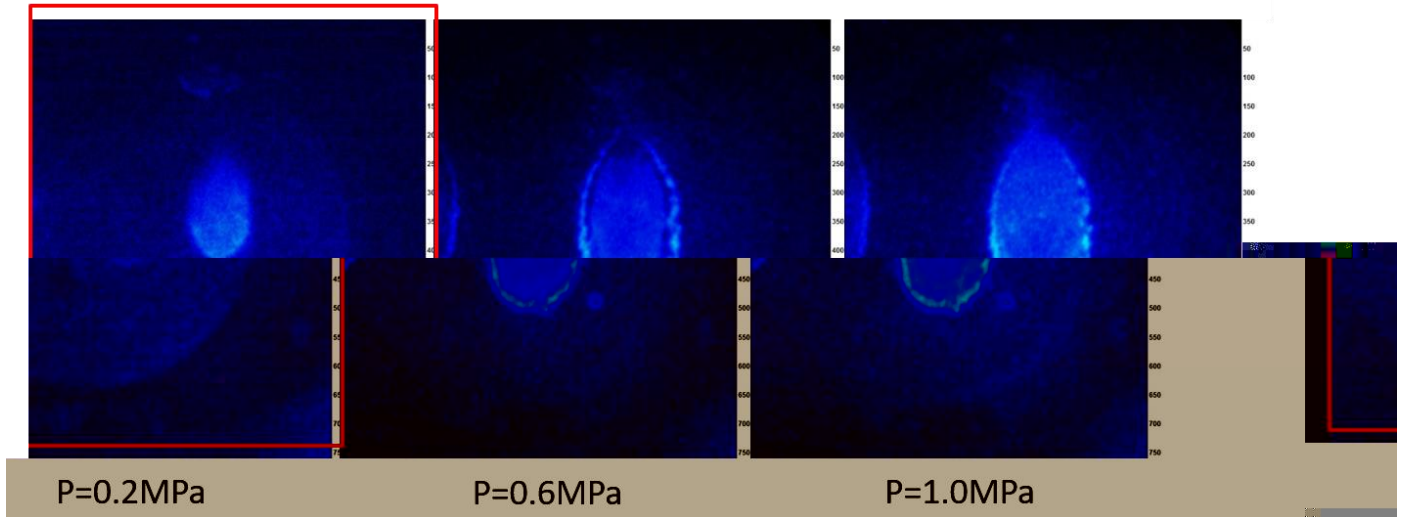


Figure 3. Result of LIF method under 25 fuel temperature and 5ms ASOI

4                      90                      5ms                      3

4

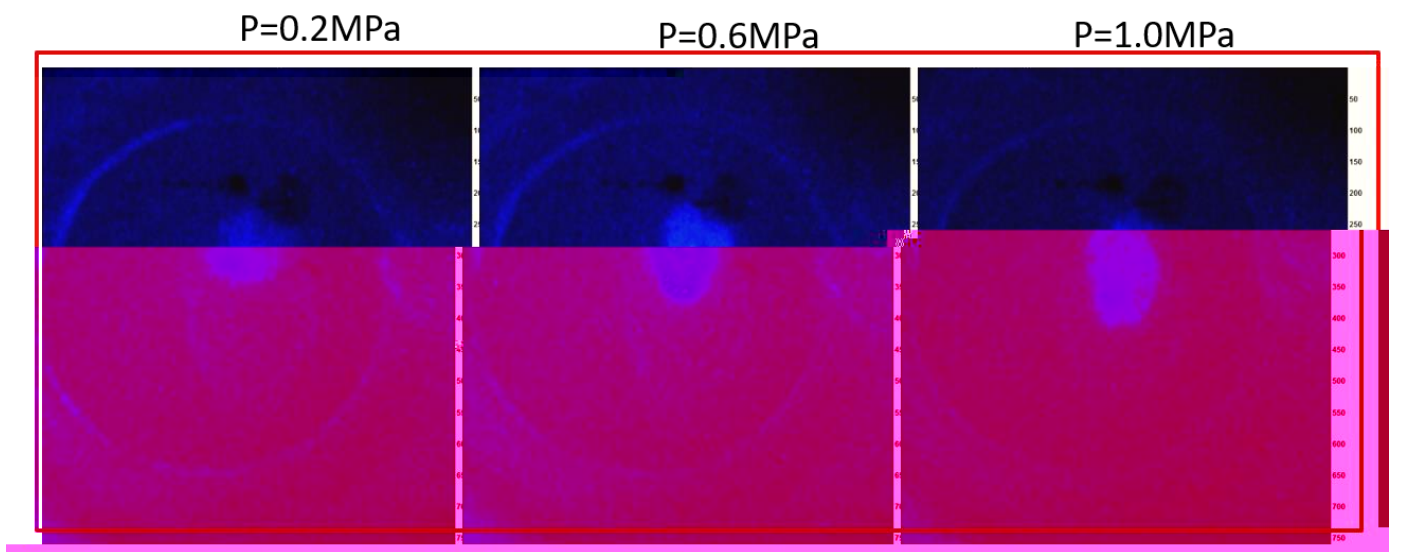


Figure 4. Result of LIF method under 90

