

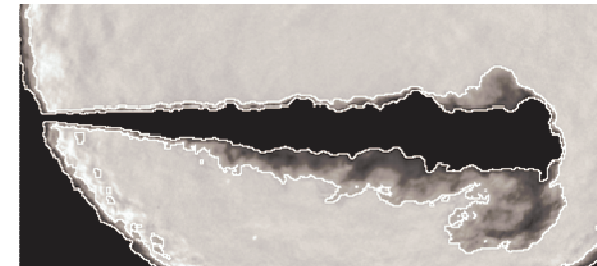
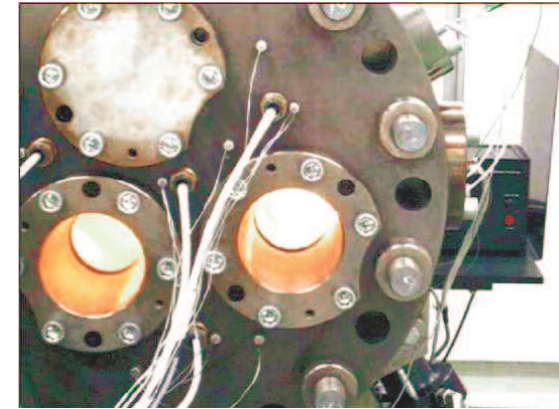
## Task 2.1: Combustion process modeling and development

### Objectives:

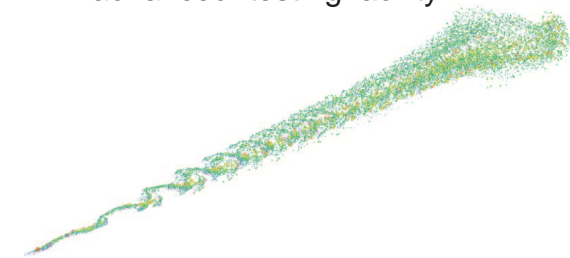
- ❑ To investigate with CFD and propose improved combustion concepts
- ❑ To acquire relevant and valid reference data to use as model input as well as model validation
- ❑ To develop and/or adapt CFD tools and simulation methods

### Progress Highlights:

- Several measurement series of spray propagation completed, advanced testing facility fully operational
- Feasibility study on advanced optical measurement techniques has been carried out
- CFD sub-models of spray and evaporation improved (break up models, multi-component fuel properties)
- First steps to improved combustion systems and verification by engine tests



Measurement of spray propagation in advanced testing facility



Simulation showing unsteady nature of spray development (Large Eddy Simulation)

Partners:



HERCULES-B