



SPIRE-01-2014

iCspec

Full Title: in-line Cascade laser spectrometer for process control

Aim:

Develop gas analysers beyond the state-of-theart for fast in-line multi-component monitoring of gas compositions in a process stream and to replace currently employed analysers as gas chromatographs or Fourier-Transform-Infrared spectrometers.

Concept:

Extend the established laser-based in-line gas sensing to the mid-infrared "chemical finger print" spectral range for multi-species detection and thus develop wide wavelength range Mid-IR laser gas analysers for fast inline multi-component monitoring of gas compositions. For this, novel semiconductor Mid-IR laser sources will be developed and integrated into in-line gas analysing measurement schemes suported by the advancements of spectroscopic and chemometric data evaluation.

Start date: 01/04/2015

End date: 31/03/2018