

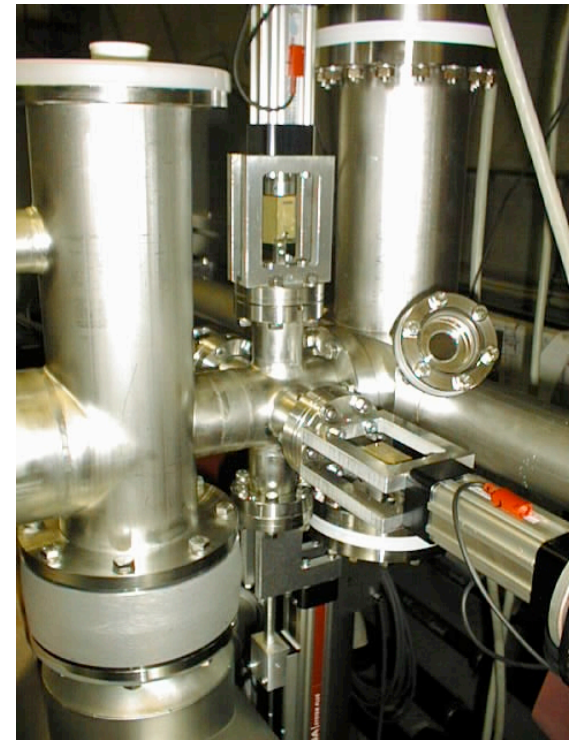
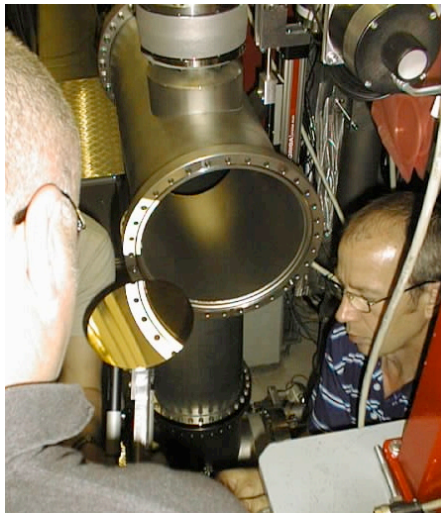
THz beamline - reloaded



Bernhard Schmidt 11.12.07

The THz beam line at 140 m

- evacuated beam line, ~20m long, transporting transition radiation from electron beam line to outside the tunnel
- 8 focussing and planar mirrors
- covers wavelengths 1.5 mm to optical
- source : off-axis screen + LOLA kicker



history

- till 31.3.2007 : end station
- dismantled beginning of
- summer 2007 : construction
- since October : installation



container work :

development of THz diagnostic tools

fast and sensitive pyro sensors

single shot spectrometer(s)

CTR spectra $1\ \mu\text{m} - 300\ \mu\text{m}$

bunch profiles μm scale

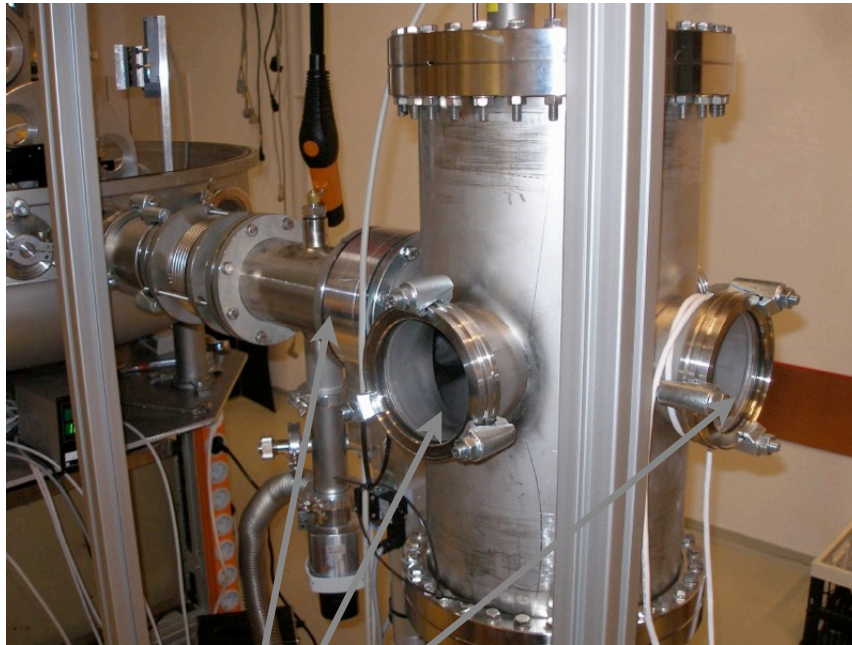
→ Hossein Delsim-Hashemi talk ?



28g room 04



distribution chamber



four ports

rotating mirror



plans

- short term (Jan - Feb): spectroscopy at short wavelengths ($\leq 10 \mu\text{m}$) simultaneously with optical TR
- mid term: installation of 4-stage single shot spectrometer $6 \mu\text{m} - 200 \mu\text{m}$
- options : combination of THz radiation and laser pulses

thanks

- to all the technicians and engineers who worked a lot to get 28g operational