TELBE beamtime: 13.06.2018 night shift

Notebook:	Old TELBE Notebook (1)		
Created:	13.06.2018 21:57	**Updated:**	01.08.2018 15:57
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SK/NA:

summary of the day:
completed temperature dependent measurements for THG of 700GHz pump
finished polarization-dependent measurements for THG of 700GHz pump at 30K and 45K

TELBE frequency: 700GHz
start to align THz-pump optical-probe setup

Position of microstage
Z:18mm

22:48 - aligned TPOP, probe spot size on the sample is 150 µm,
to direct the reflected beam through the hole - had to tilte the cryostate.
Small part of the reflected beam is scattered on the hole in parabola,
there is high noise in the balansed signal - maybe due to the vibrations of the cryostate.

run 2 loops with 250 steps starting from 75 mm position. Run #87

23:30 power - 104 mW
set temperature to 30K
reduced scan range: 57mm to 49mm, 80steps, -0,1 mm step size, 3 loops
file: 088_0p7THz_LSCO_30K_TPOP_P1_155_P2_50

One arm signal for reference.
scan range: 57mm to 49mm, 80steps, -0,1 mm step size, gain1, 1 loop
file: 089_0p7THz_LSCO_30K_TPOP_P1_155_P2_50_onearm

probe power - 1 mW
desired fluence - 2 µJ/cm^2. We are way higher than this, decided to reduce the overall fluence by using larger focal length lens for 800 nm.
Set temperature to lowest as at 30K we don't see second harmonic component easily as we saw for 14K scan.

THz power BDA - 111 mW
didn't change the lens. Decided to reproduce the scan 087 first

scan range: 57mm to 49mm, 80steps, -0,1 mm step size, gain 50, 2loops
file: 089_0p7THz_LSCO_15p3K_TPOP_P1_155_P2_50

00:29
the timing signal is lost, no undulator beam in the lab. The first loop of scan 089 is fine, not sure about the second one.
Called Operators to assist. Some technical issue.

INFO: The control system (WinCC) lost connection (possibly due to the scheduled maintenance work of the company providing internet to HZDR)

02:30 Still no progress. Servers are down and operators are trying to work on this

6:00 problems with WinCC still remain, there is hope that things can be fixed when the control system experts arrive at 7:00