



Ride-along Z data LOS 130, LOS 170 and LOS 330 for university collaborators

ZAPP19a shots z3364 and z3365

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Requesting unlimited release to:

West Virginia University collaborators:

Mark Koepke (professor, advisor), Ted Lane (graduate student)

University of Nevada, Reno collaborators:

Roberto Mancini (professor, advisor), Dan Mayes (graduate student) and Kyle Swanson (graduate student)



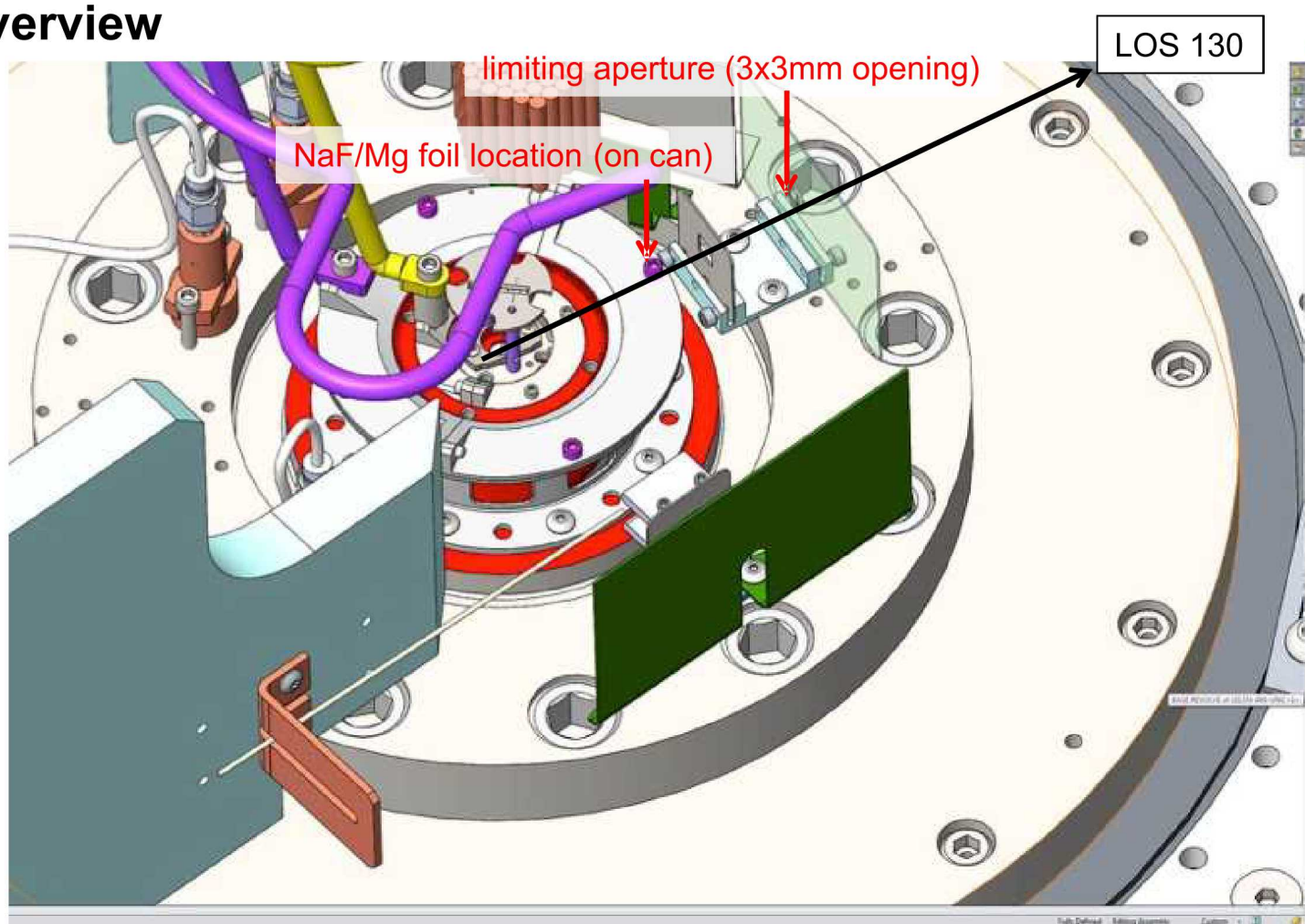
Shot sequence:

Diagnostics	z3364 – targets	z3365 - targets
LOS 130 TIXTL RL and RR 2 KAP crystals, spectral range 6-15Å	NaF/Mg foil with 15µm CH tamping on each side placed on can.	NaF/Mg foil with 7µm CH tamping on each side placed on can.
LOS 330 TREX A time resolved TREX B time integrated	Ne gas cell 30 Torr	Ne gas cell 30 Torr

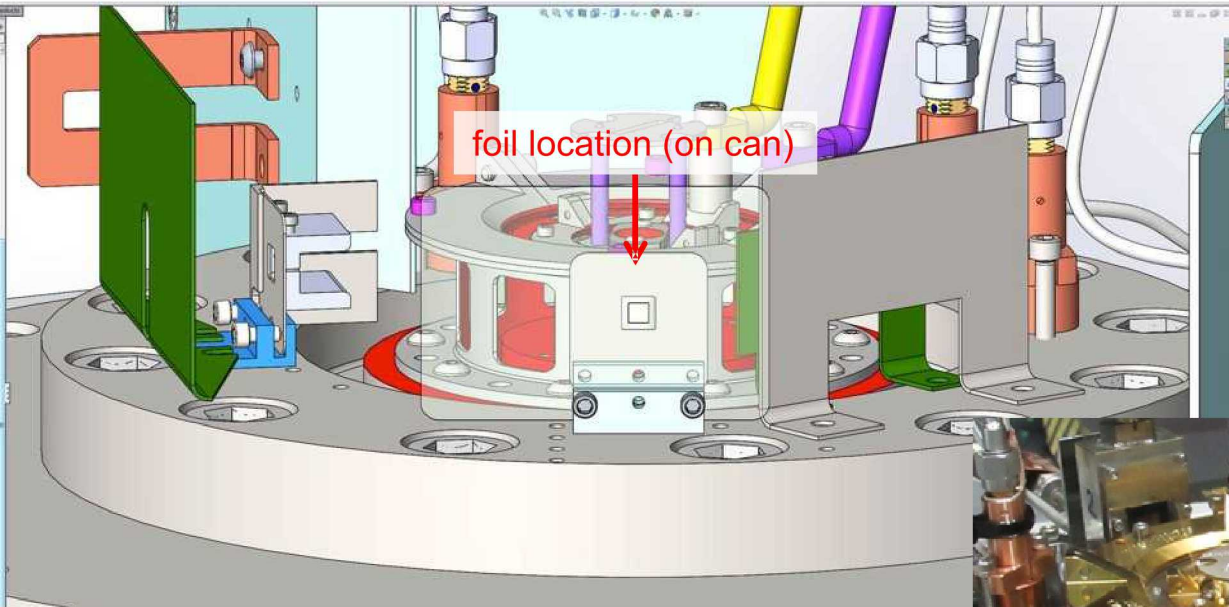
Each instrument record the x-ray emission from the Z-pinch dynamic hohlraum (ZPDH):

- LOS 130 TIXTLs instruments record the absorption of the pinch backlighter through an expanding NaF/Mg foil.
- LOS 330 TREX 6A & B: recoded time resolved and time integrated absorption spectra from a radiatively heated Ne gas.
- LOS 170 are MLM monochromatic and high-pass imagers, imaging the Z-pinch before and near stagnation.

Anode overview

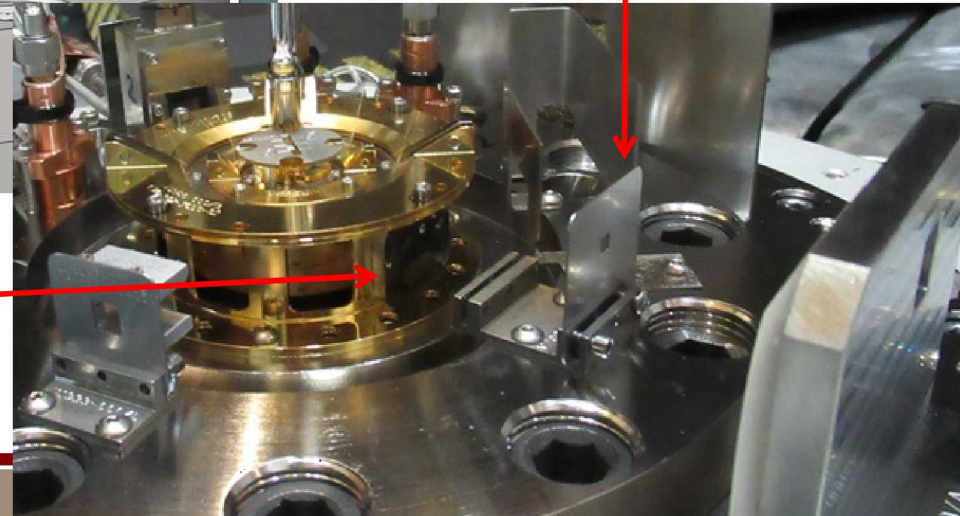


LOS 130, 12° LOS diagnostic view



Limiting aperture

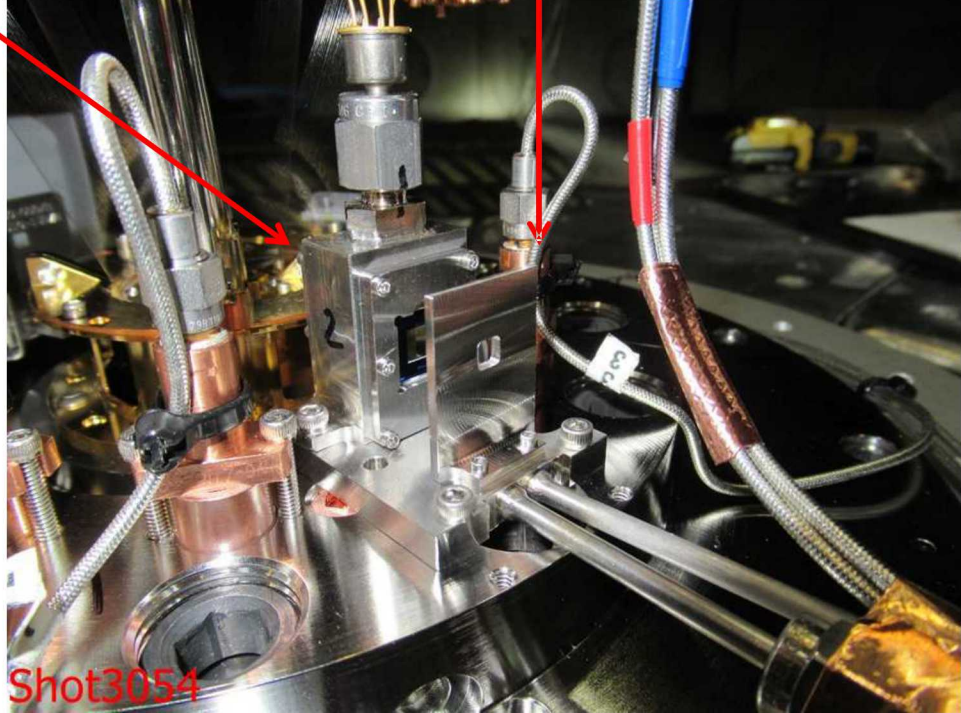
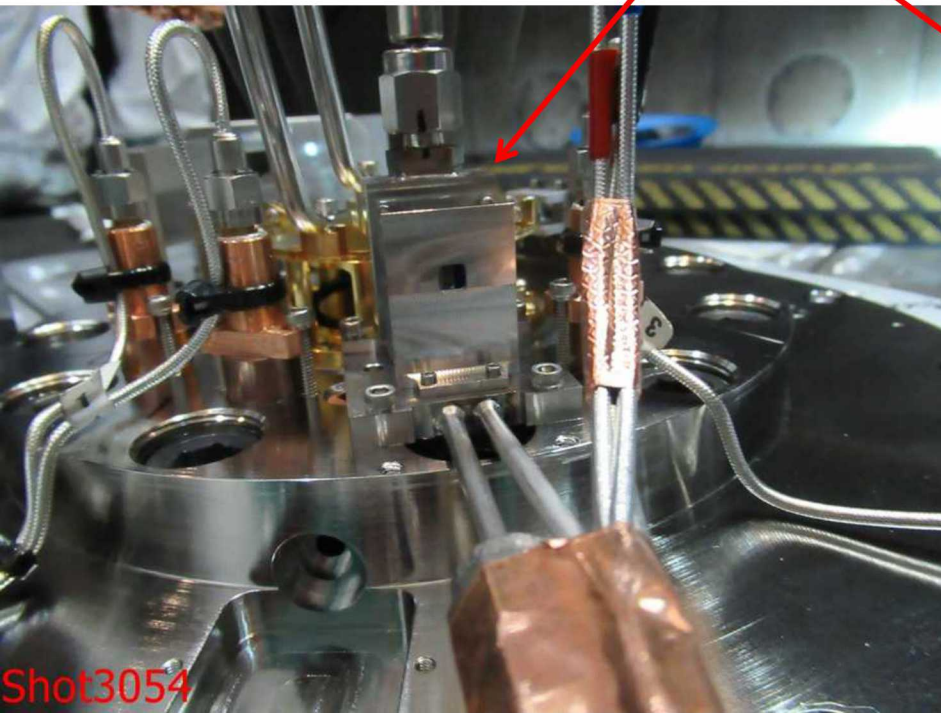
NaF/Mg foil on can
before shot



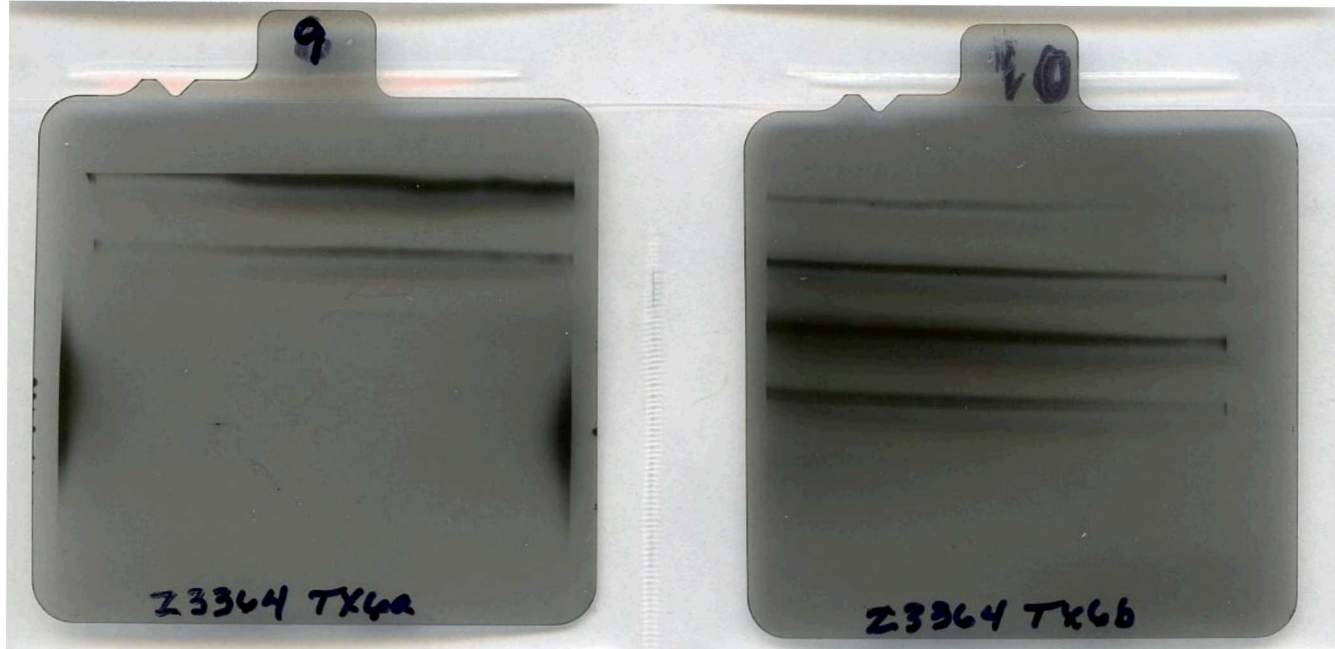
LOS 330, Ne gas cell

gas cell

Limiting aperture



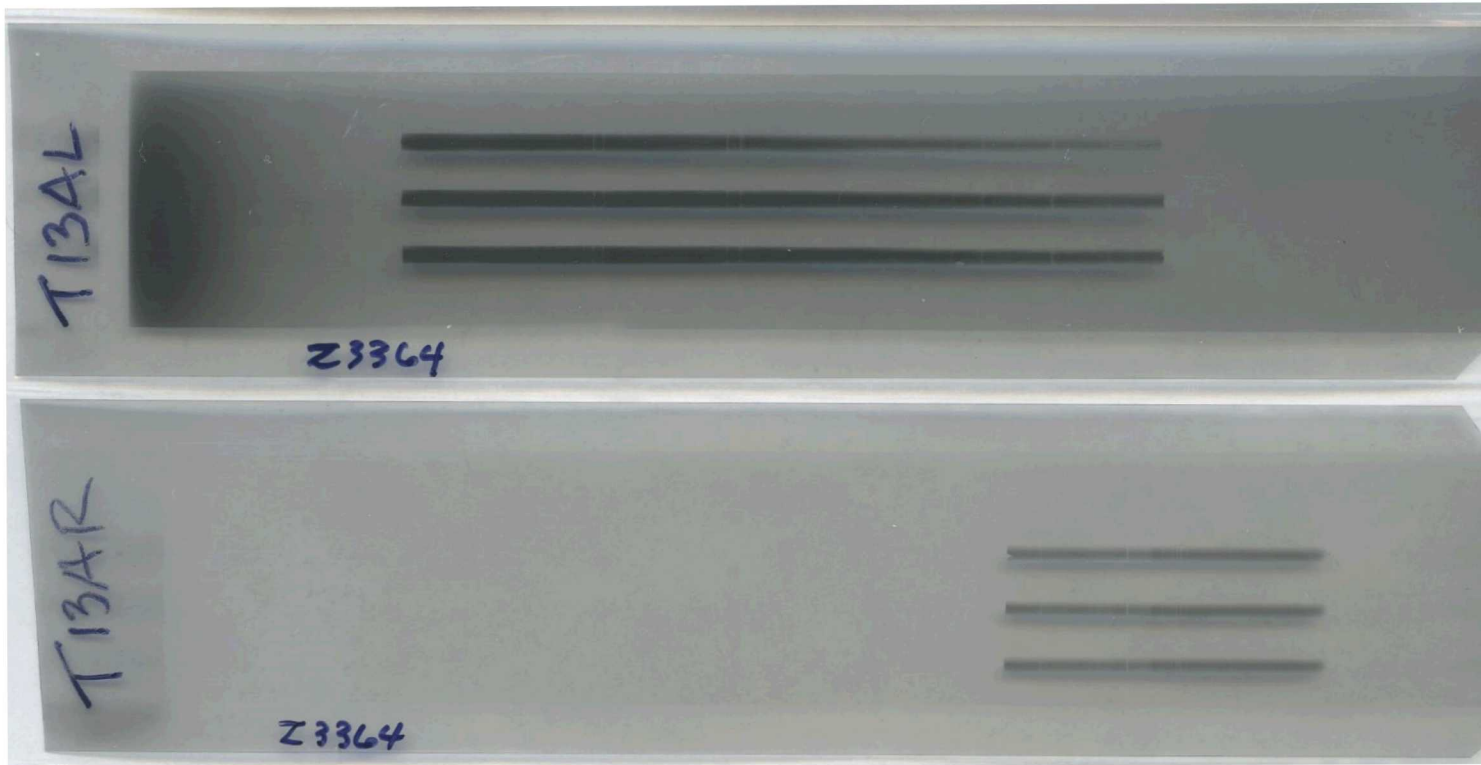
z3364 – LOS330
TREX6A – TREX6B



z3364 – LOS130

TIXTL AL

TIXTL AR

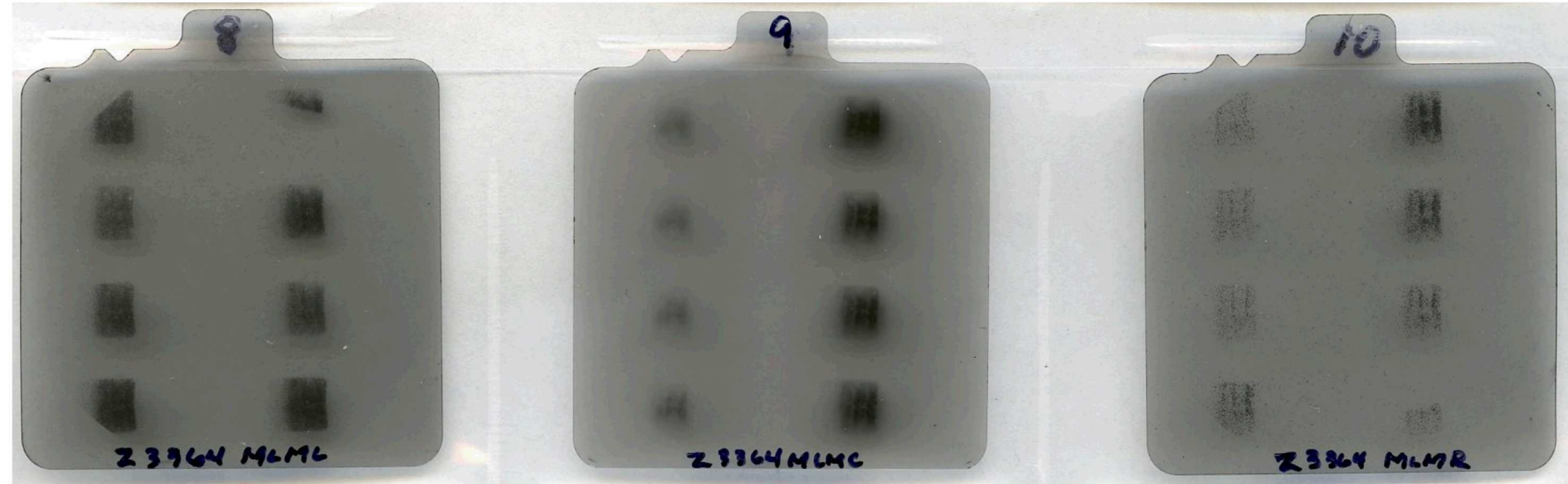


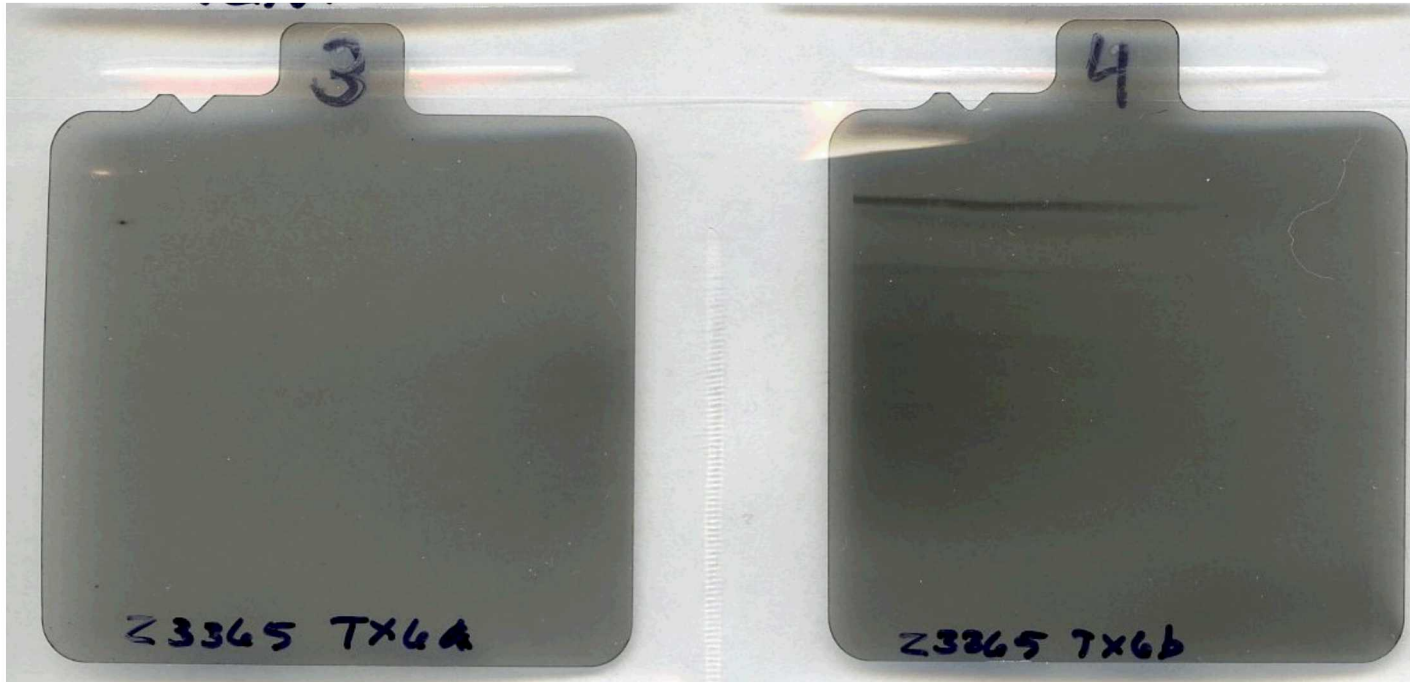
Z3364 – LOS170

MLM L

MLM C

MLM R





camera not triggered

emission too late vs camera timing

z3365 – LOS130

TIXTL AL

TIXTL AR



data lost due to
filter malfunction

Z3365 - LOS170

MLM L

MLM C

MLM R

