

SBS Measurements for Sandia's MagLIF Program

Matthias Geissel

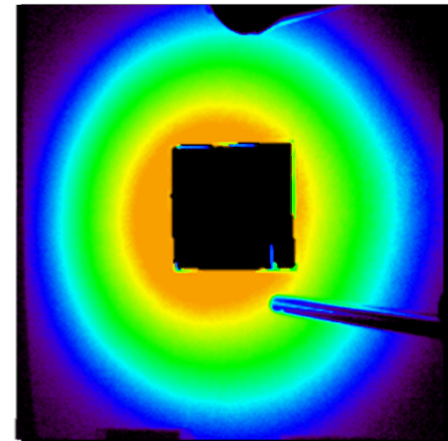
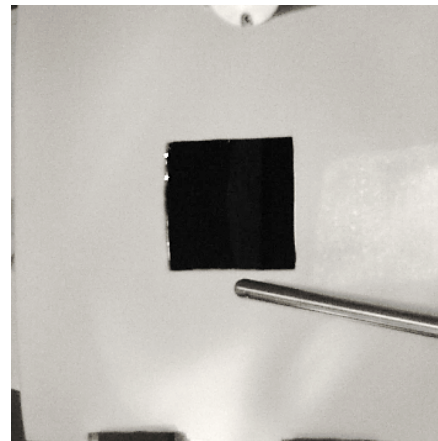
T.J. Awe, D.E. Bliss, E.M. Campbell[†], M.E. Glinsky,
M.R. Gomez, E. Harding, A.J. Harvey-Thompson,
M.W. Kimmel, P. Knapp, K. Peterson, A.B. Sefkow,
J.E. Shores, D.B. Sinars, S.A. Slutz, I.C. Smith,
C.S. Speas, M. Weis, and J.L. Porter

Sandia National Laboratories

[†]LLE, University of Rochester

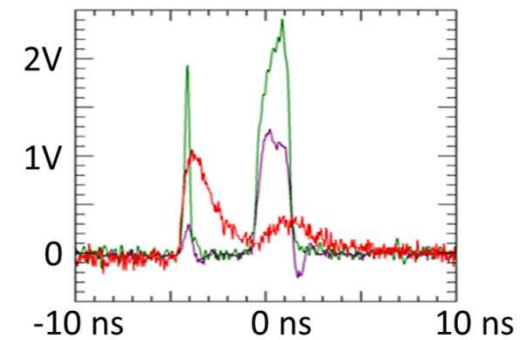
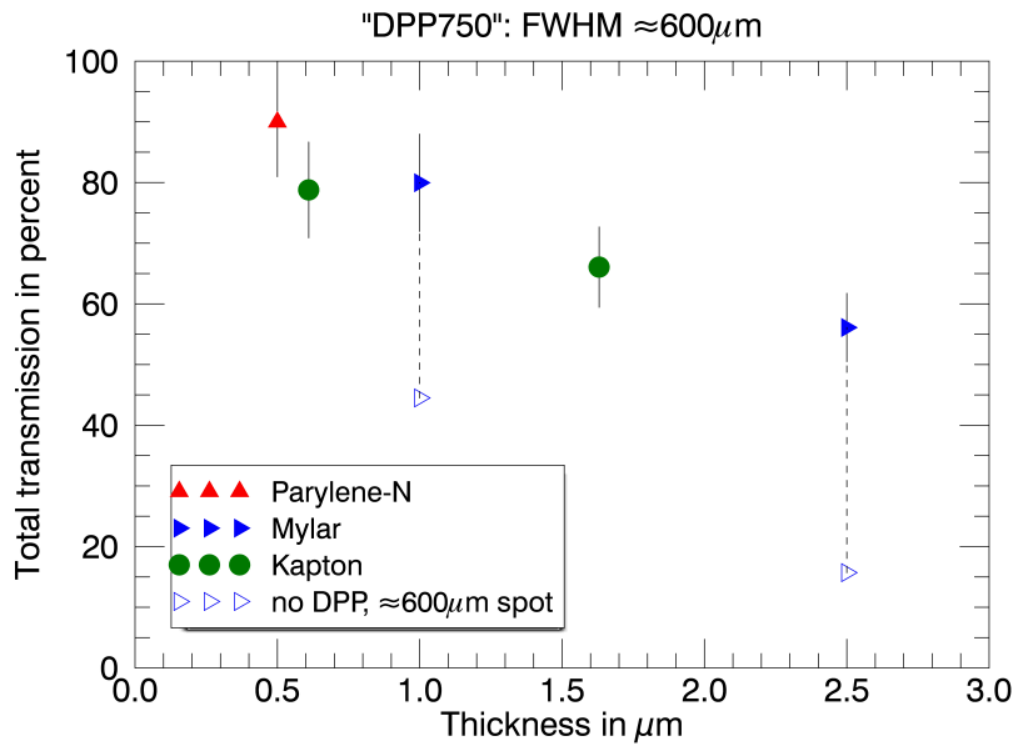
SAND2016-4091C

*Exceptional service
in the national interest*



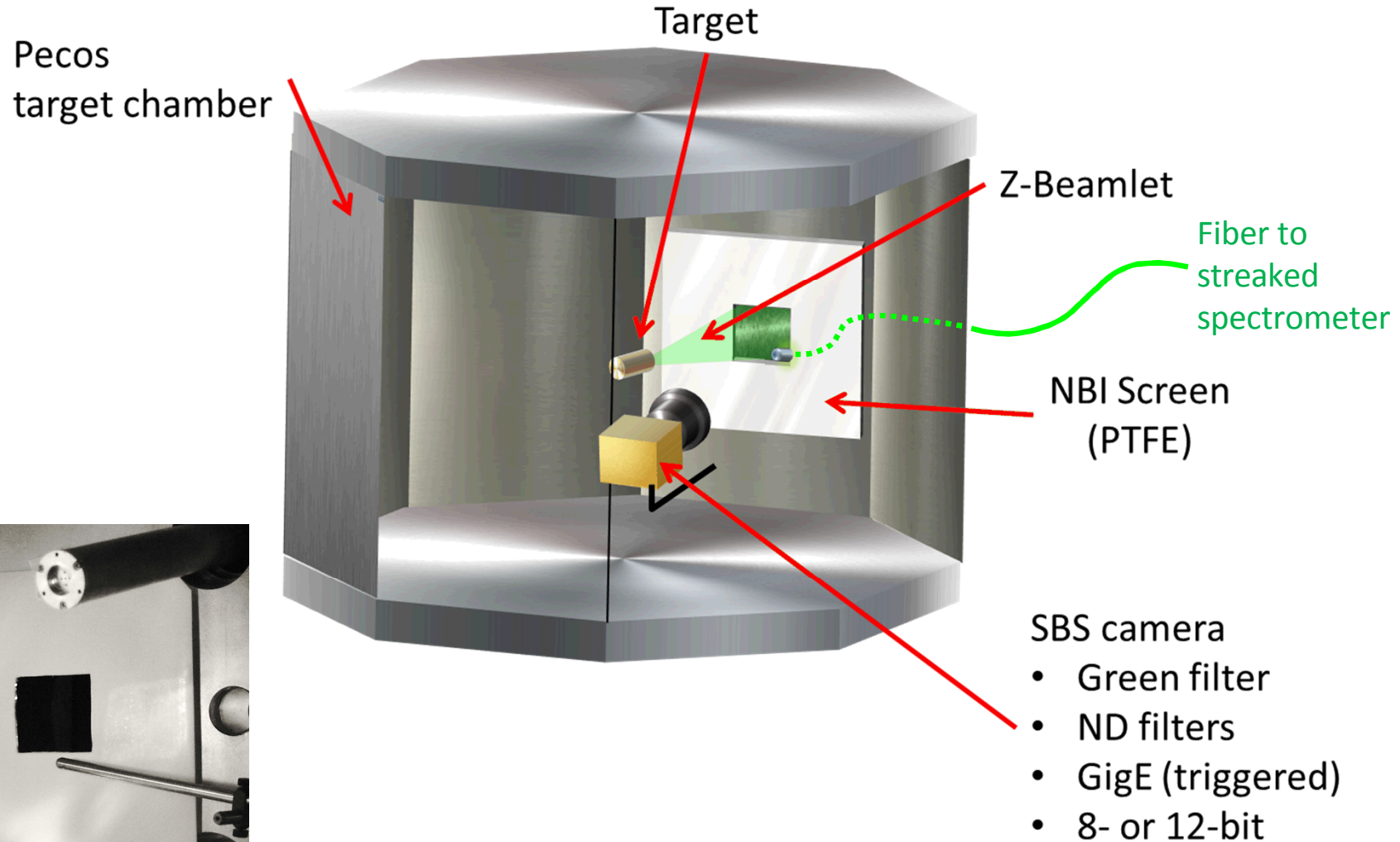
LEH Transmission with Phase Plate

prelim

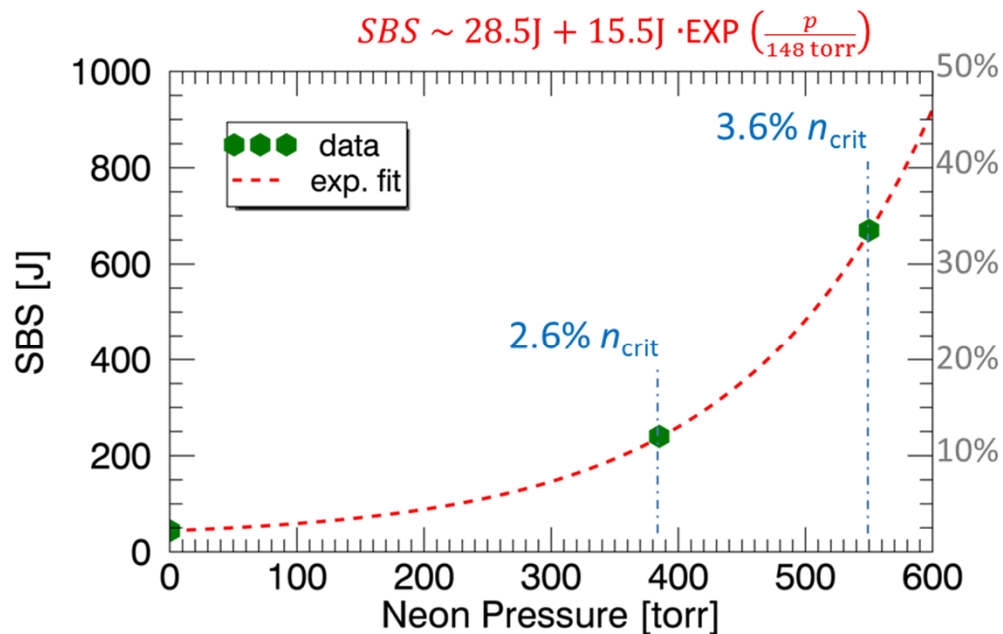
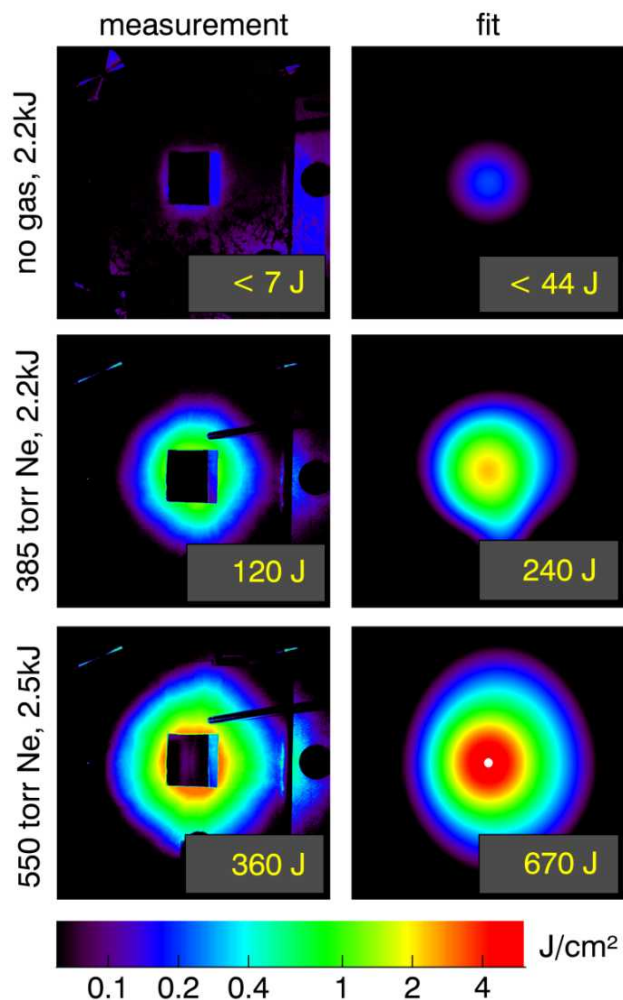


SBS Backscatter Measurements

Setup



No Phase Plate

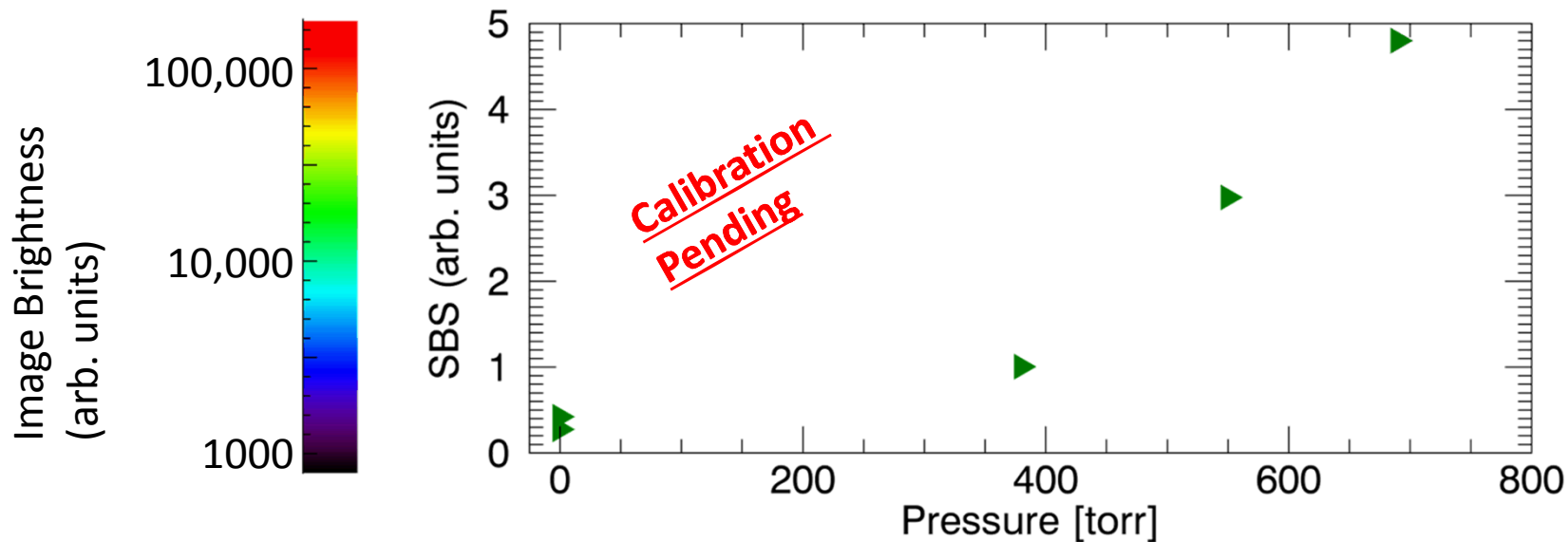
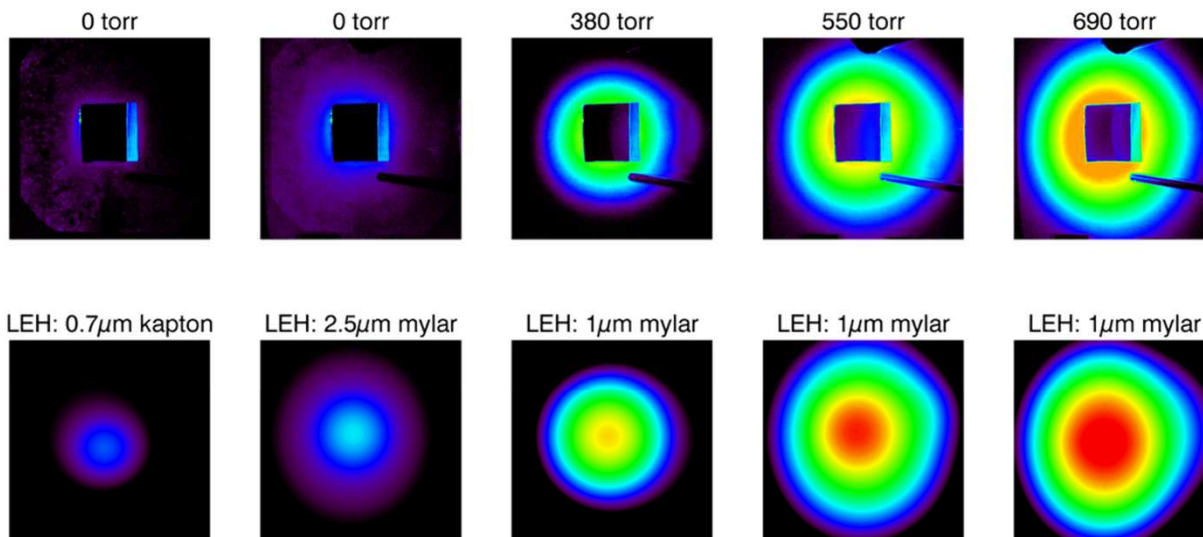


SBS Backscatter Measurements

SBS images with
750 μ m DPP
(log-scale)

DATA

FIT

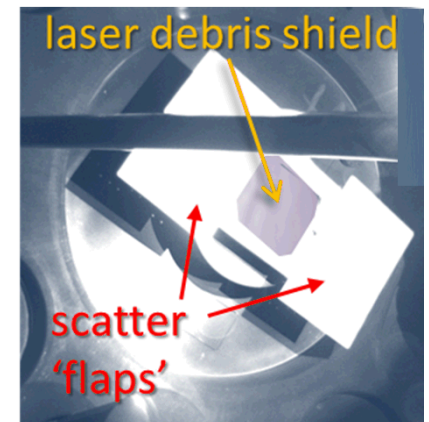
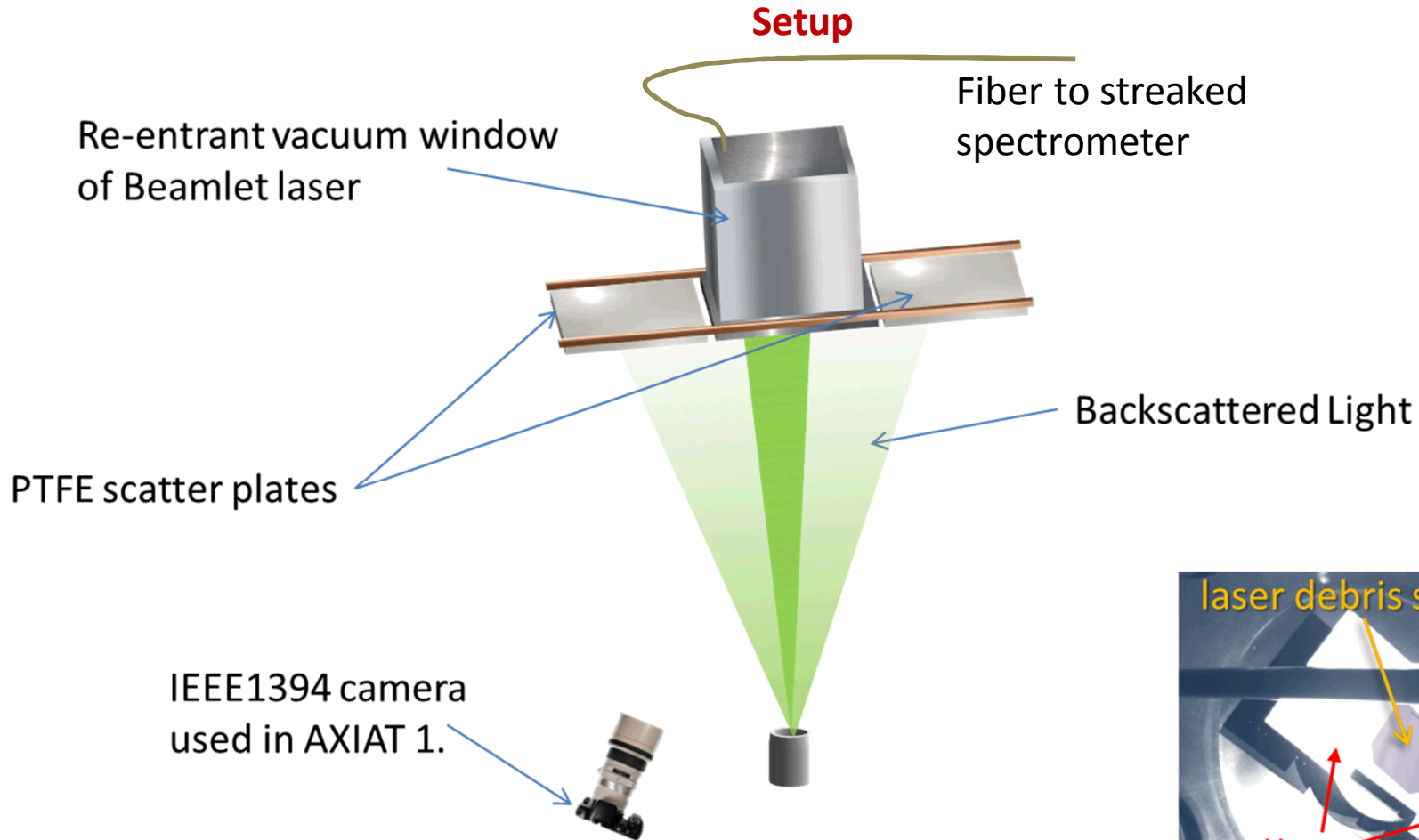


Main Title

Subtitle

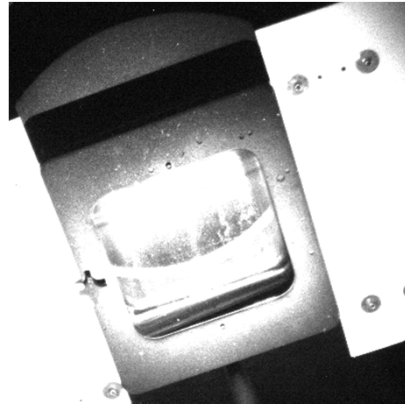
Main Title

Subtitle

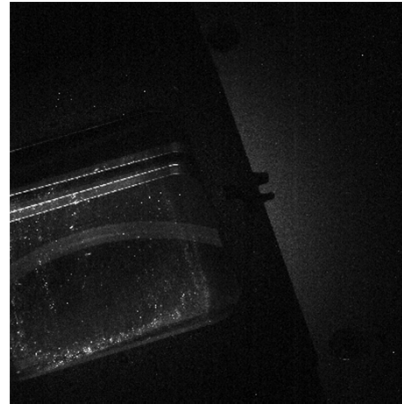


SBS Backscatter Measurements in Z

Measurements



no phase plate



w/ phase plate



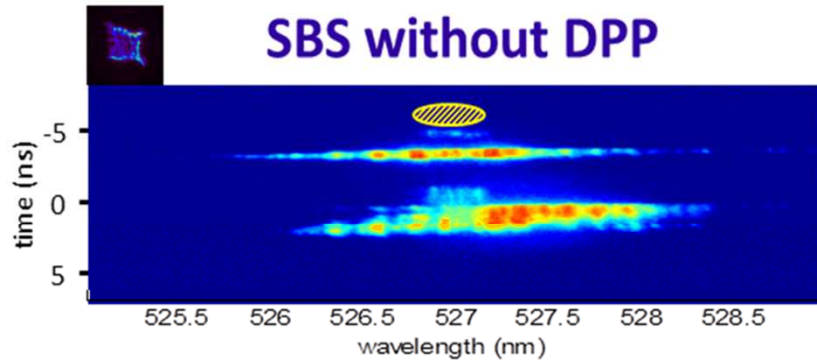
w/ phase plate
(adjusted brightness)



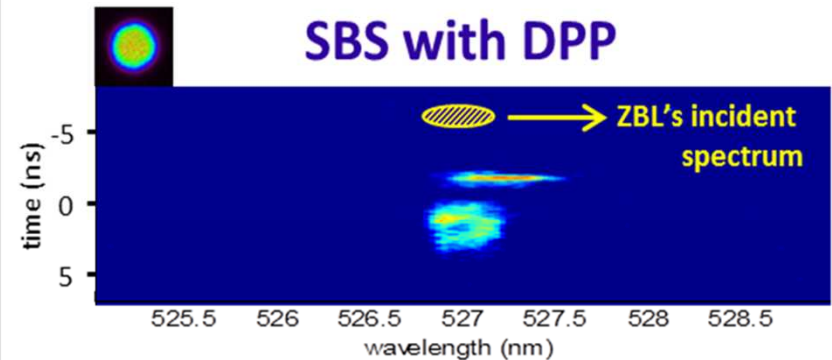
(Different camera and lens)

SBS Backscatter Measurements

Temporally and spectrally resolved



Courtesy of David Bliss



Poor beam quality:

- More SBS
- Bigger $\Delta\lambda$ (filamentation)
- Spectral shift

Notes: Gas is D₂ (less SBS than Ne)
Measurements taken in Z