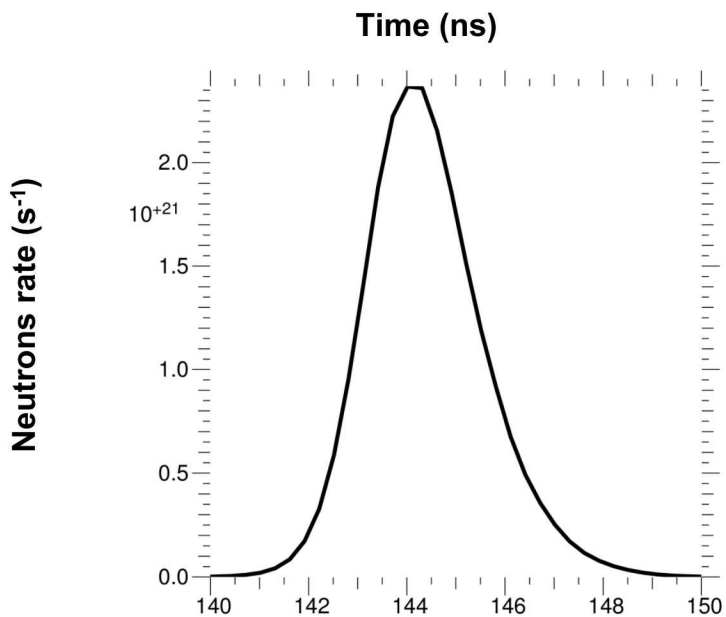
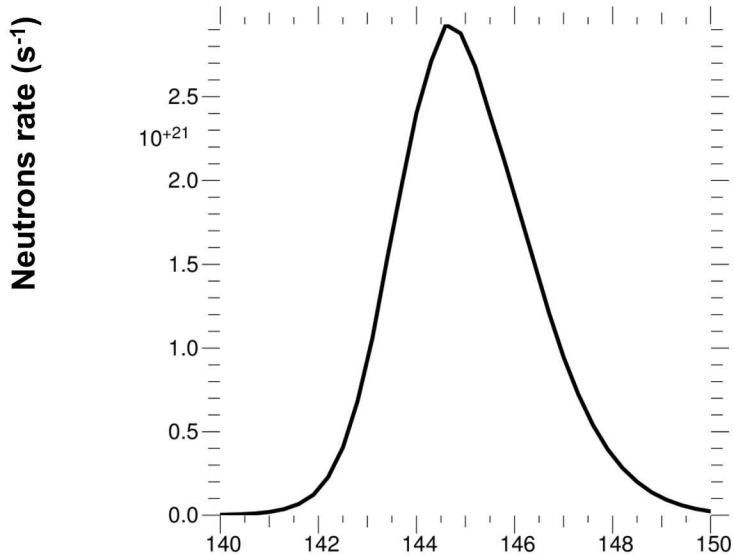


Lasnex simulated neutron production rates of MagLIF driven by 17.5 MA

SAND2018-13910R

Stephen Slutz
Sandia Laboratories

Time resolved neutron detection will provide important information of MagLIF implosions. To aid the design of such detectors Lasnex has been used to simulate the neutron production rates for two MagLIF configurations. The results are shown in Fig 1 a) B=15 T, preheat=1.1 kJ, D₂ density=1.05 mg/cc and b) B=10 T, preheat=0.8 kJ, D₂ density=0.7 mg/cc.



Time (ns)

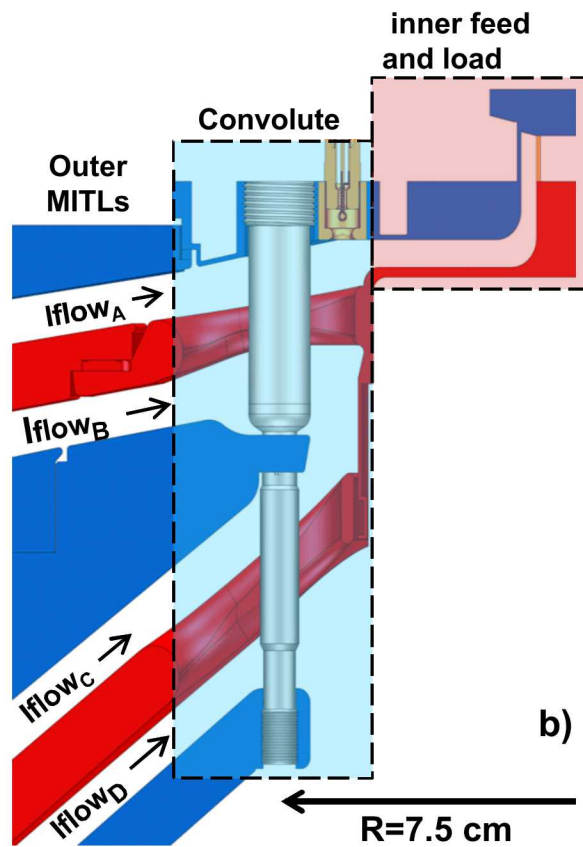
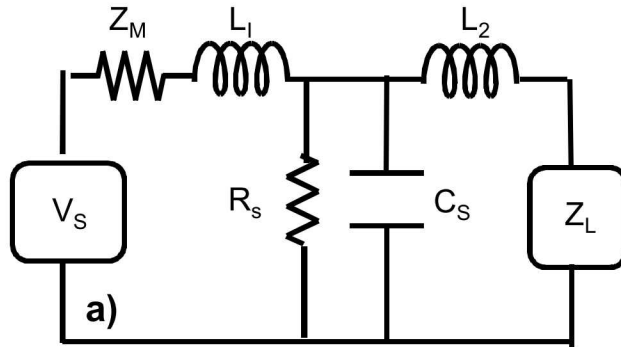
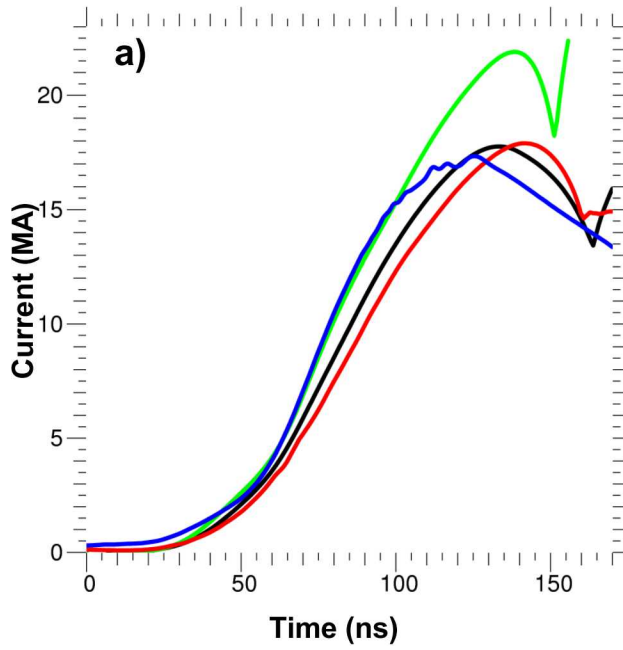


Figure 2 SASlutz Phys. Plasmas



Add experimental curve in blue

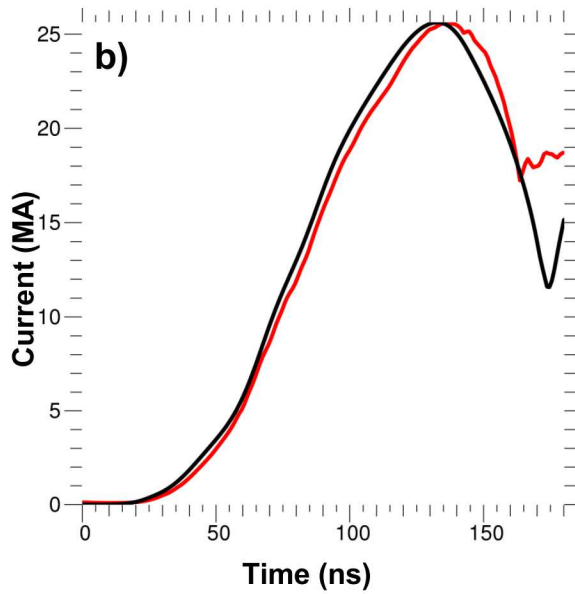


Figure 3 SASlutz Phys. Plasmas

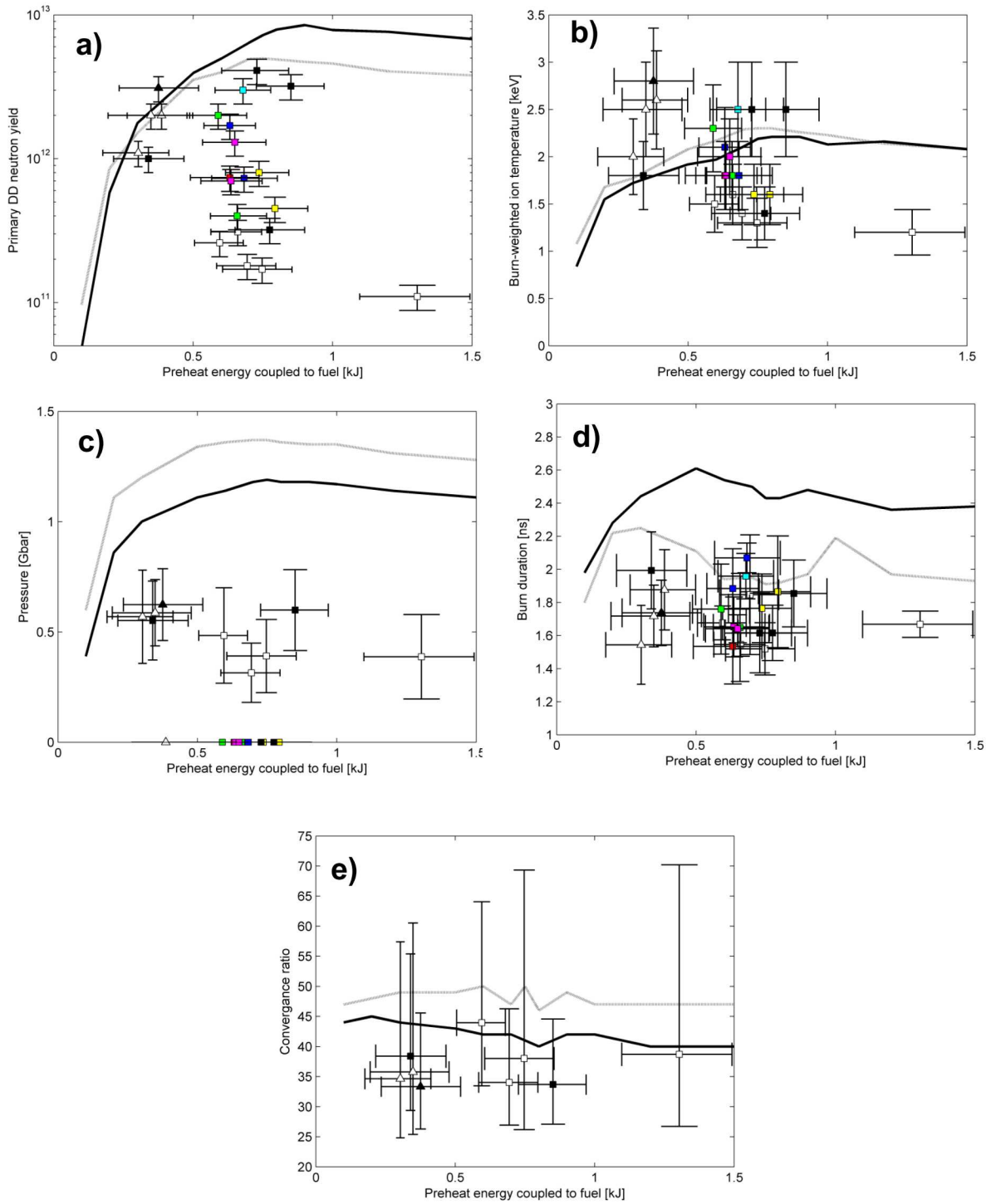


Figure 4 SASlutz Phys. Plasmas

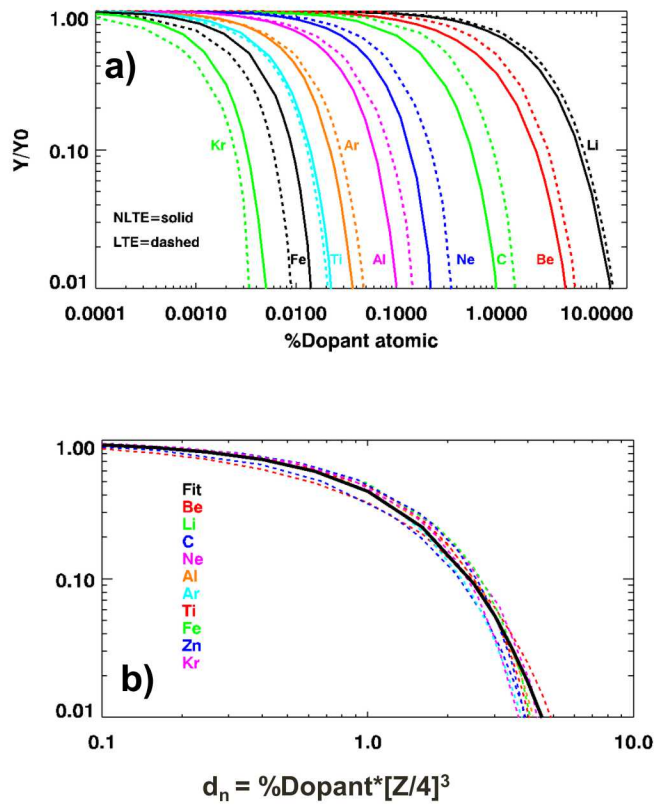


Figure 5 SASlutz Phys. Plasmas

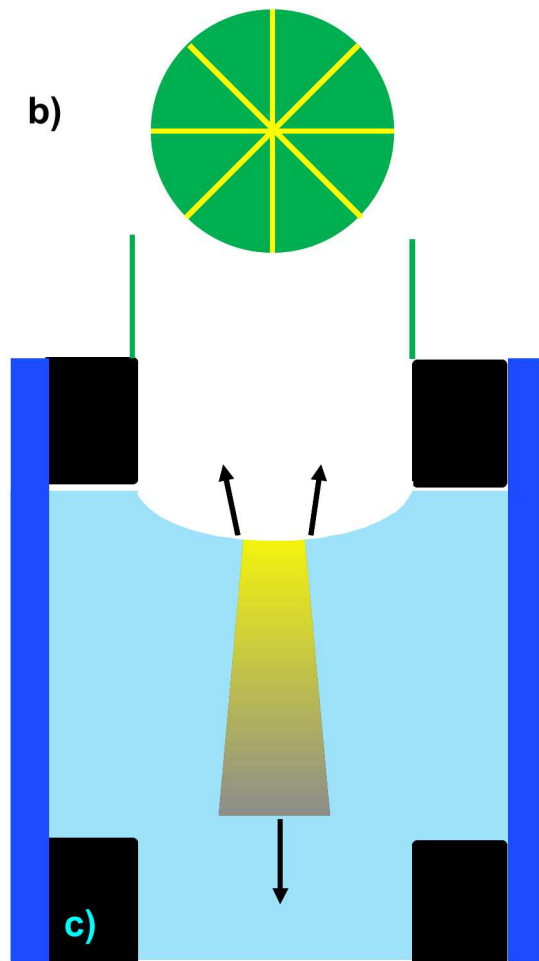
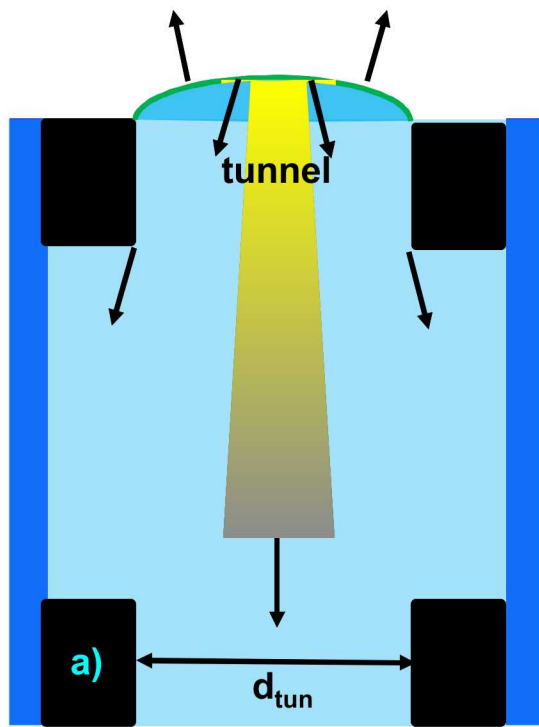


Figure 6 SASlutz Phys. Plasmas

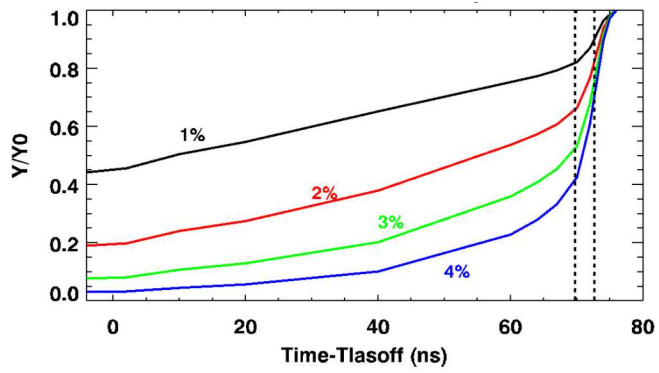


Figure 7 SASlutz Phys. Plasmas

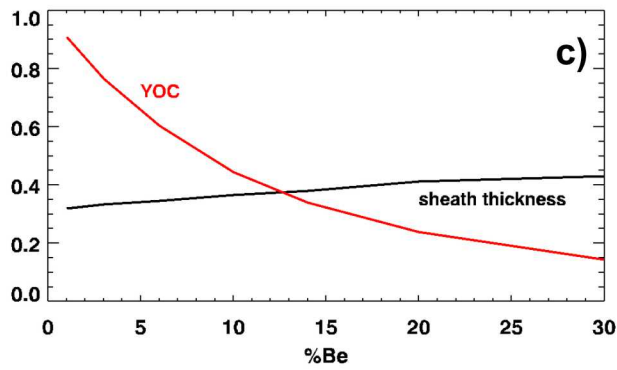
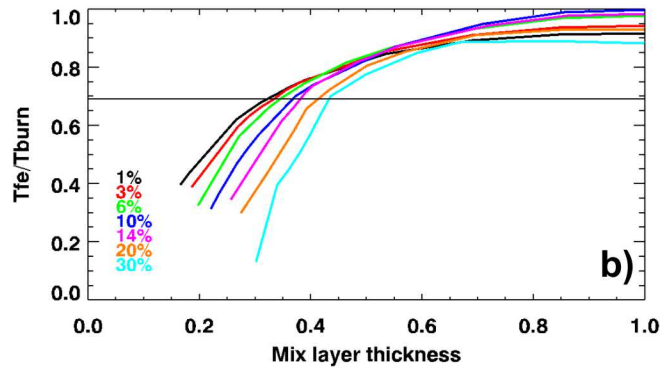
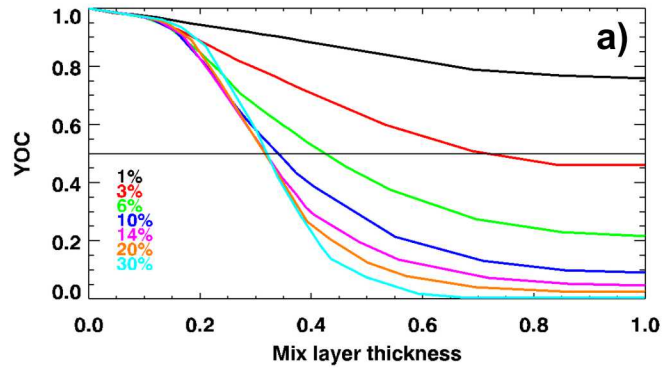


Figure 8 SASlutz Phys. Plasmas

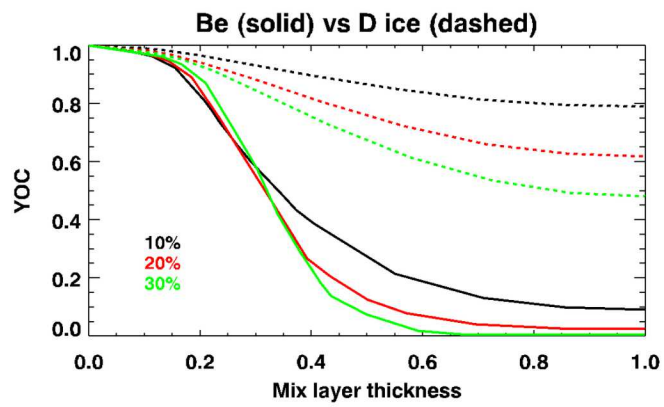


Figure 9 SASlutz Phys. Plasmas

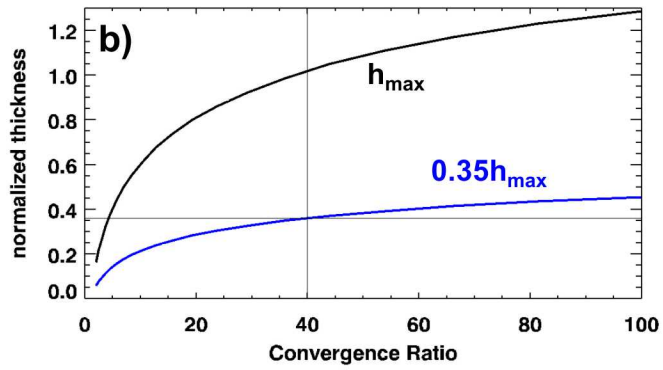
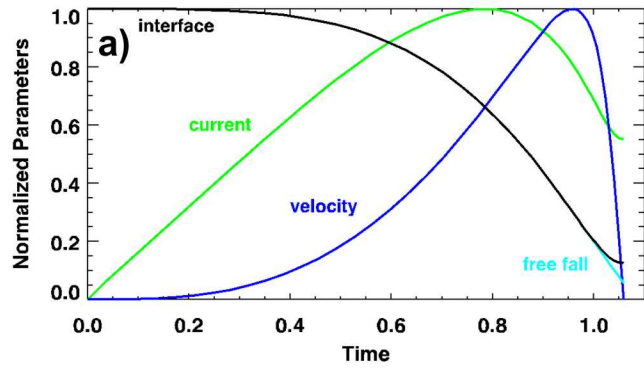


Figure 10 SASlutz Phys. Plasmas

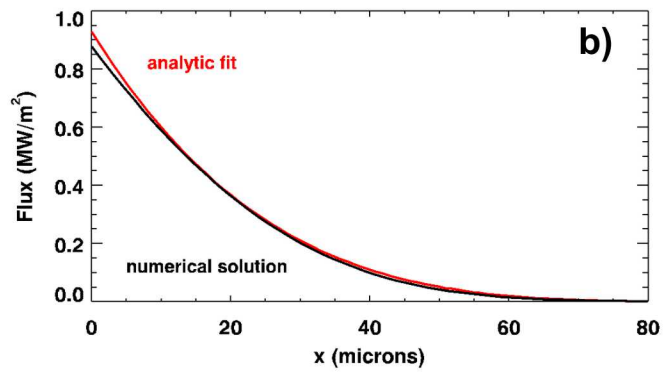
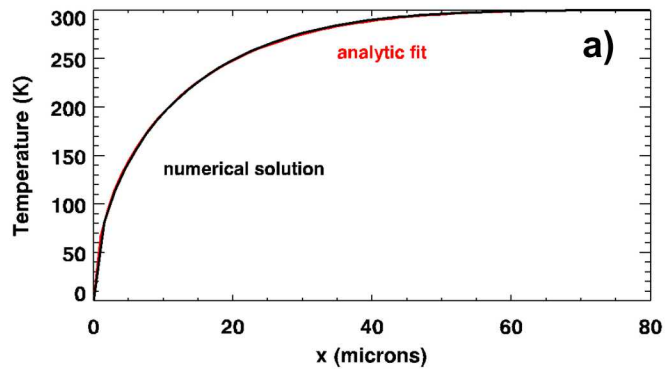


Figure 11 SASlutz Phys. Plasmas

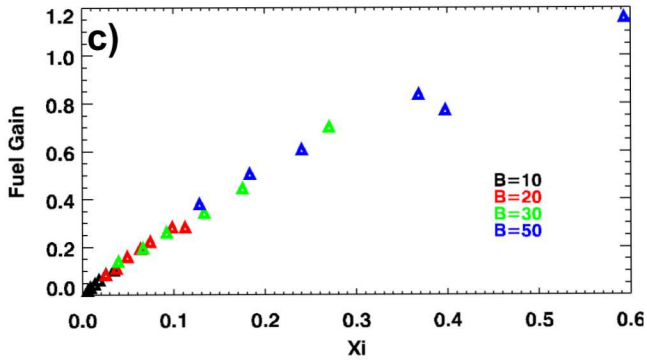
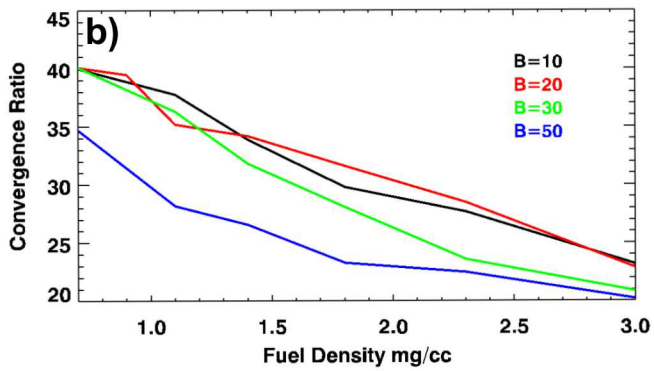
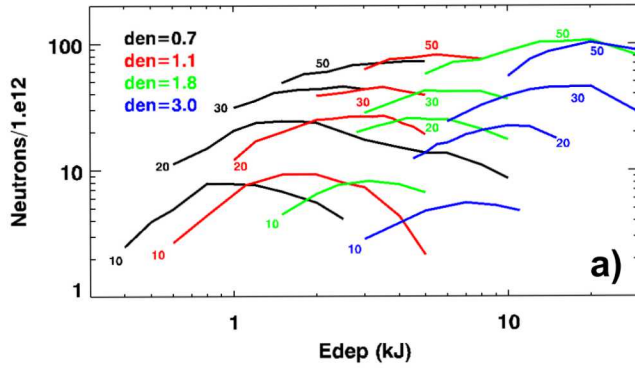


Figure 12 SASlutz Phys. Plasmas

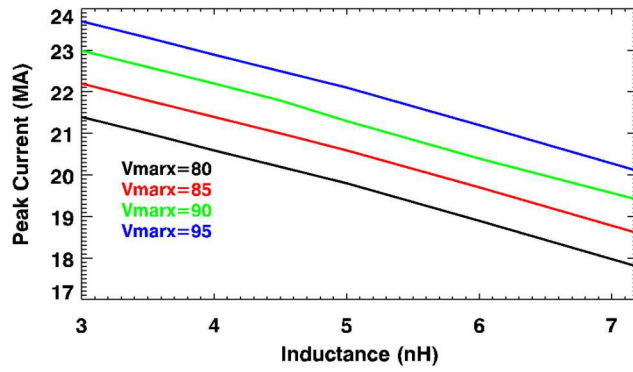


Figure 13 SASlutz Phys. Plasmas

Matt is going to clean this up

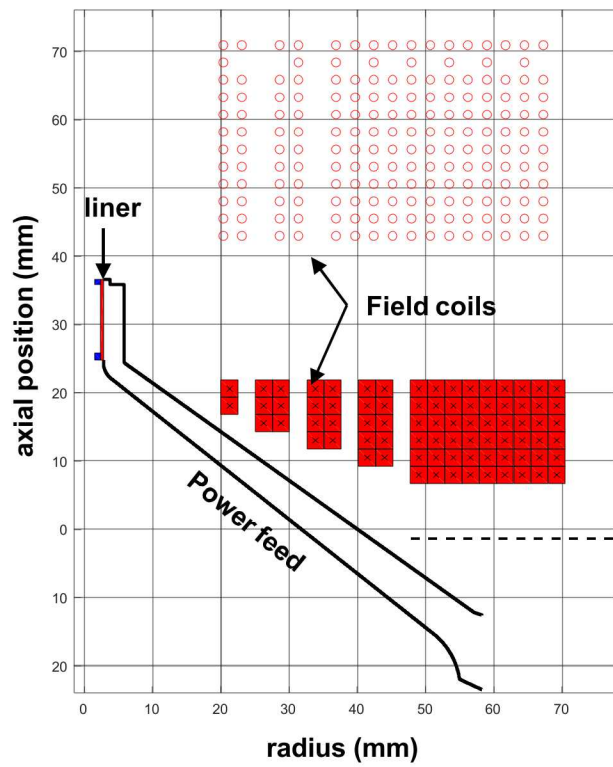


Figure 14 SASlutz Phys. Plasmas

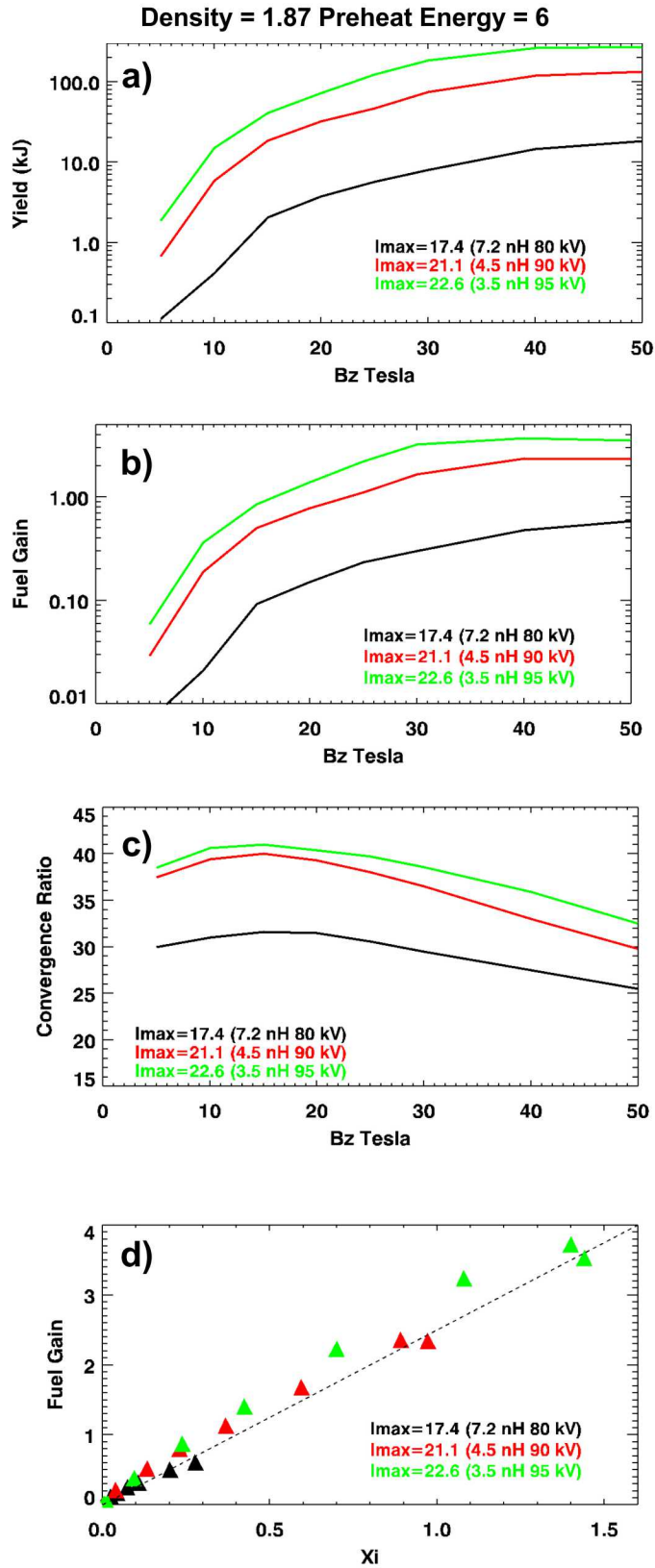


Figure 15 SASlutz Phys. Plasmas

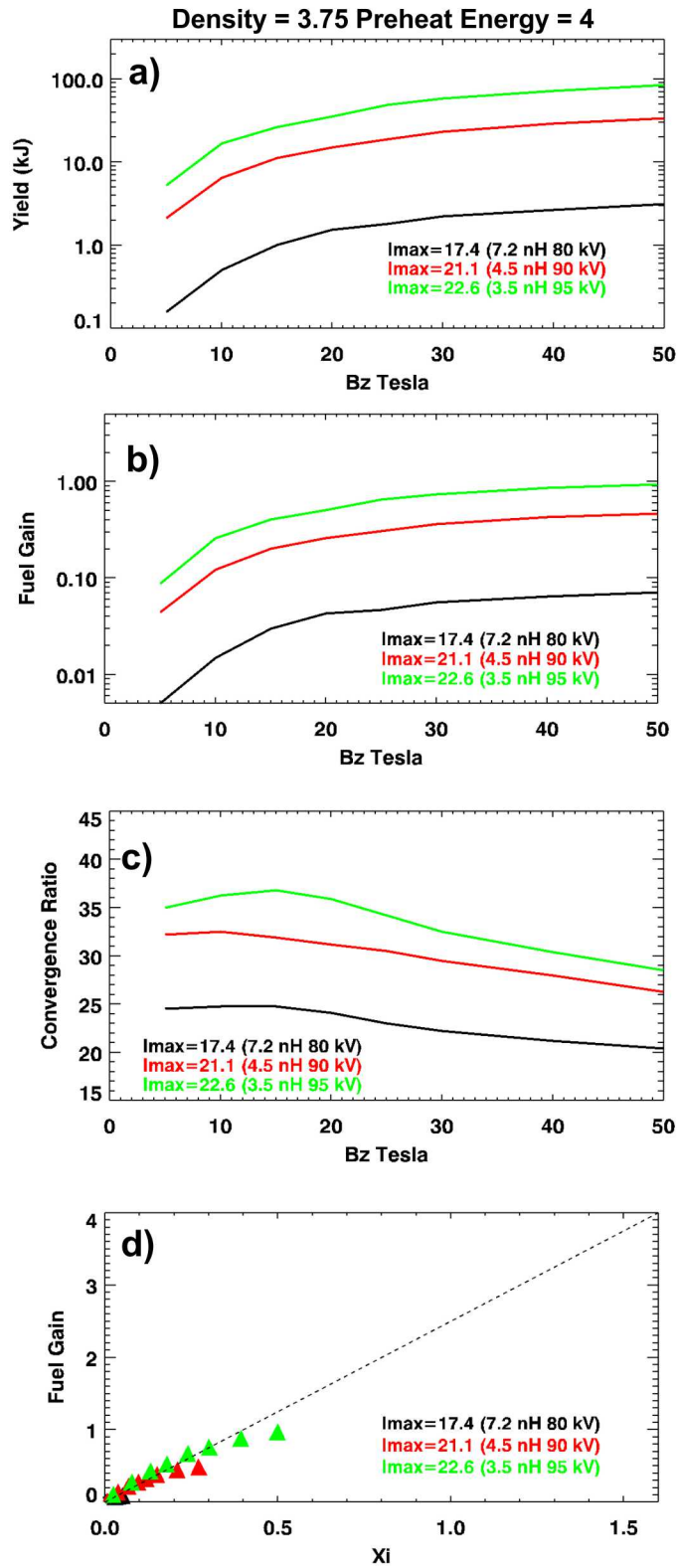


Figure 16 SASlutz Phys. Plasmas

Density = 3.75

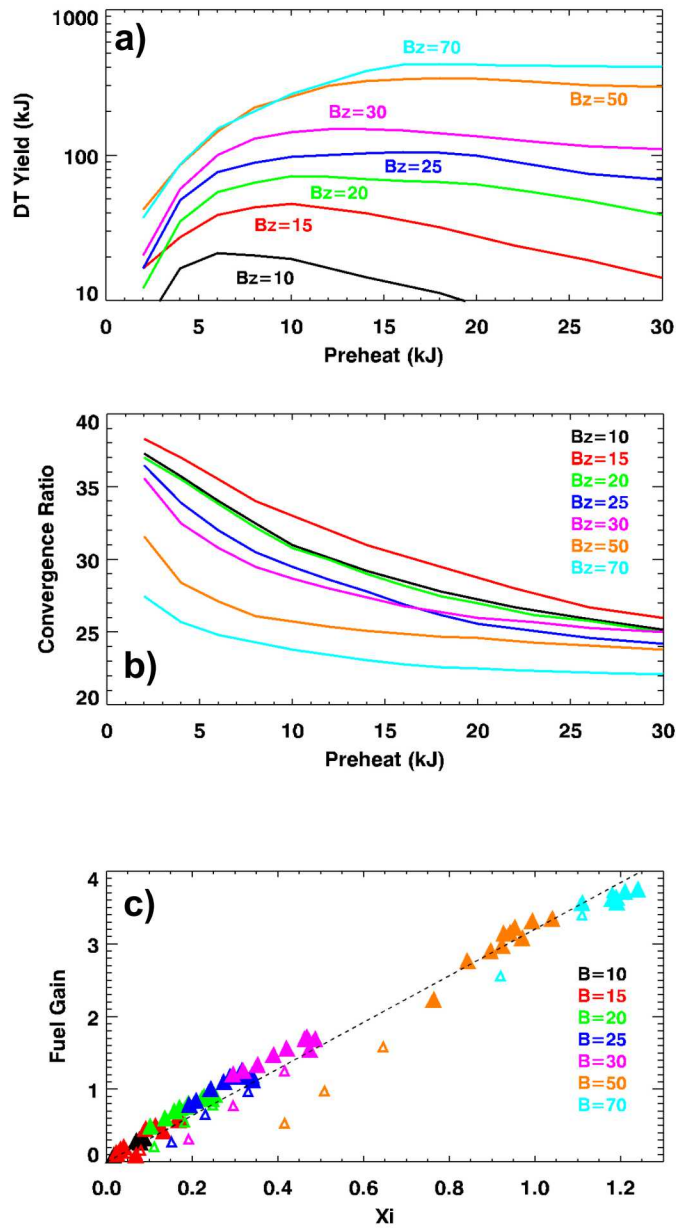


Figure 17 SASlutz Phys. Plasmas