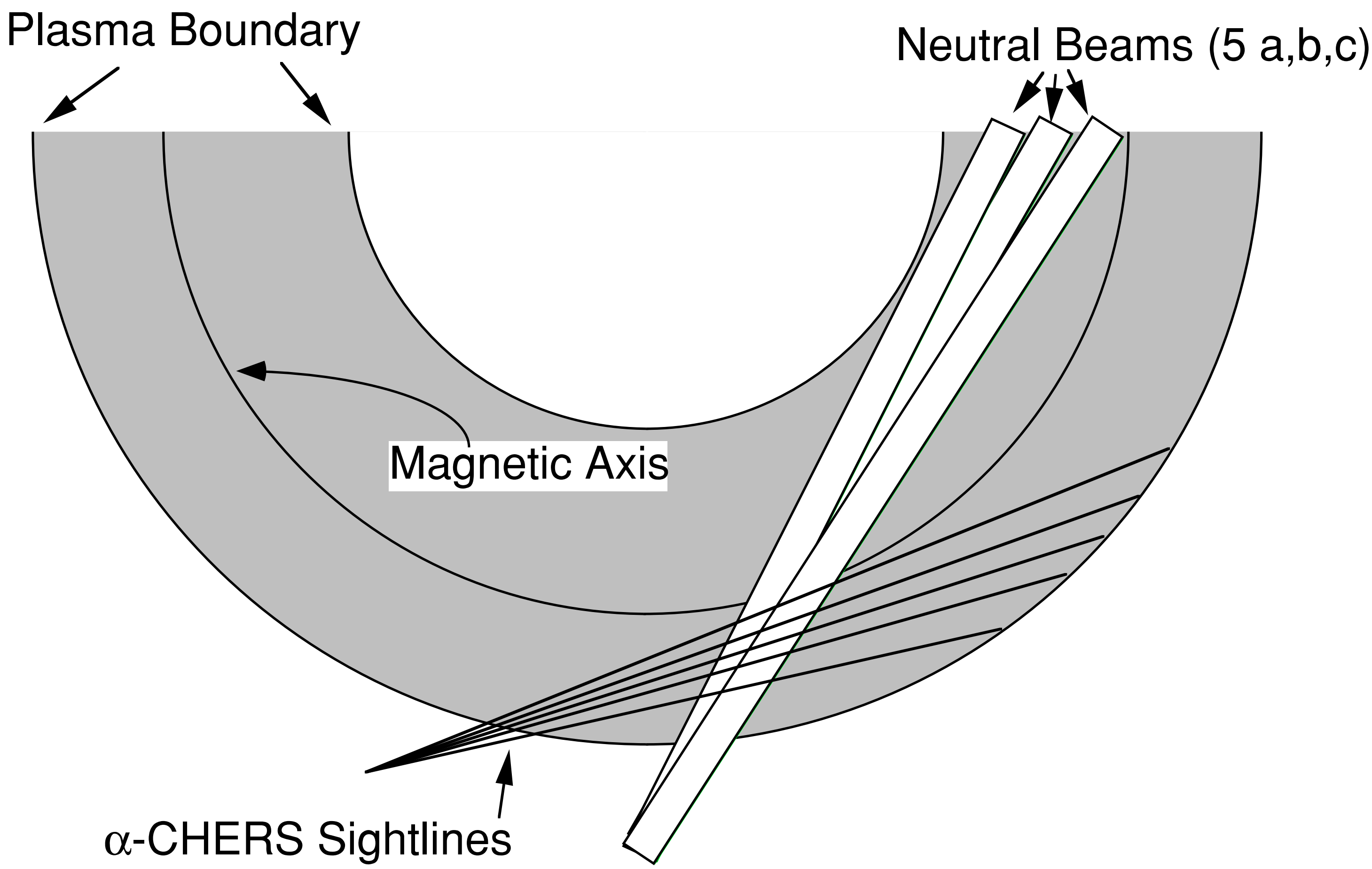

Plasma Boundary
Neutral Beams (5 a,b,c)
Magnetic Axis
α-CHERS Sightlines

Fig. 20

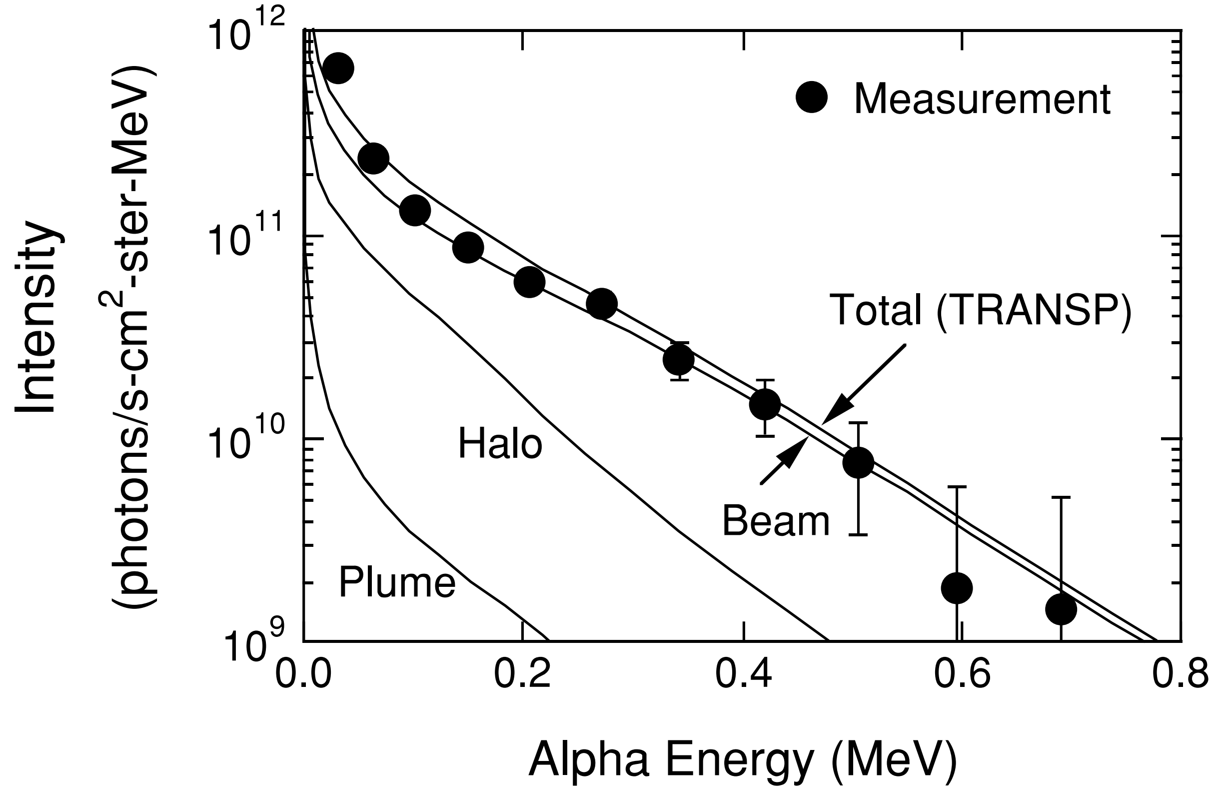
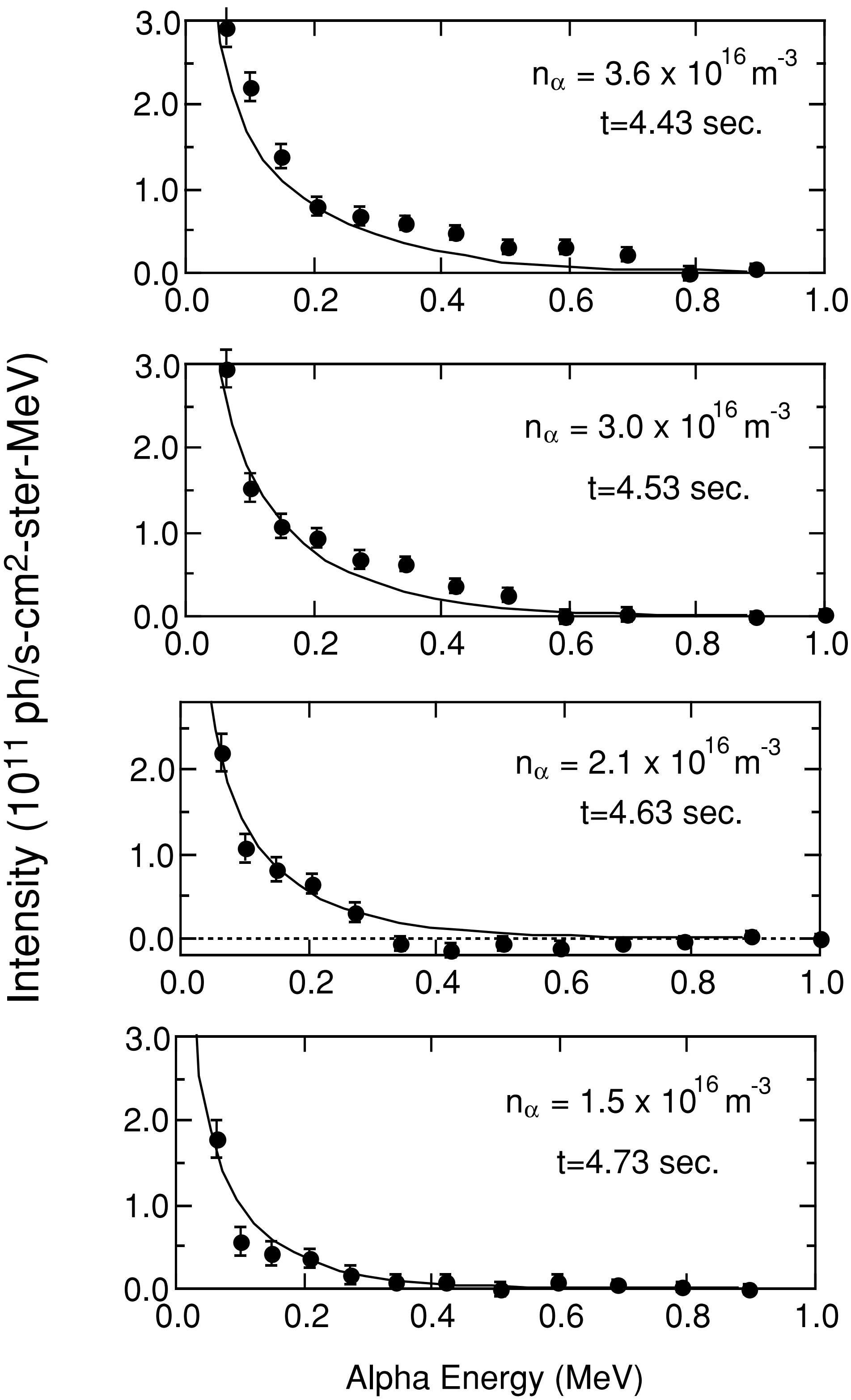

Measurement
Total (TRANSP)
Beam
Halo
Plume
Intensity
(photons/s-cm^2-ster-MeV)
Alpha Energy (MeV)
10^{12}
10^{11}
10^{10}
10^{9}
0.0
0.2
0.4
0.6
0.8

Fig. 21



Intensity (10^{11} ph/s-cm^2-ster-MeV)
n_α = 3.6 x 10^{16} m^{-3}
t=4.43 sec.
n_α = 3.0 x 10^{16} m^{-3}
t=4.53 sec.
n_α = 2.1 x 10^{16} m^{-3}
t=4.63 sec.
n_α = 1.5 x 10^{16} m^{-3}
t=4.73 sec.
Alpha Energy (MeV)

Fig. 22

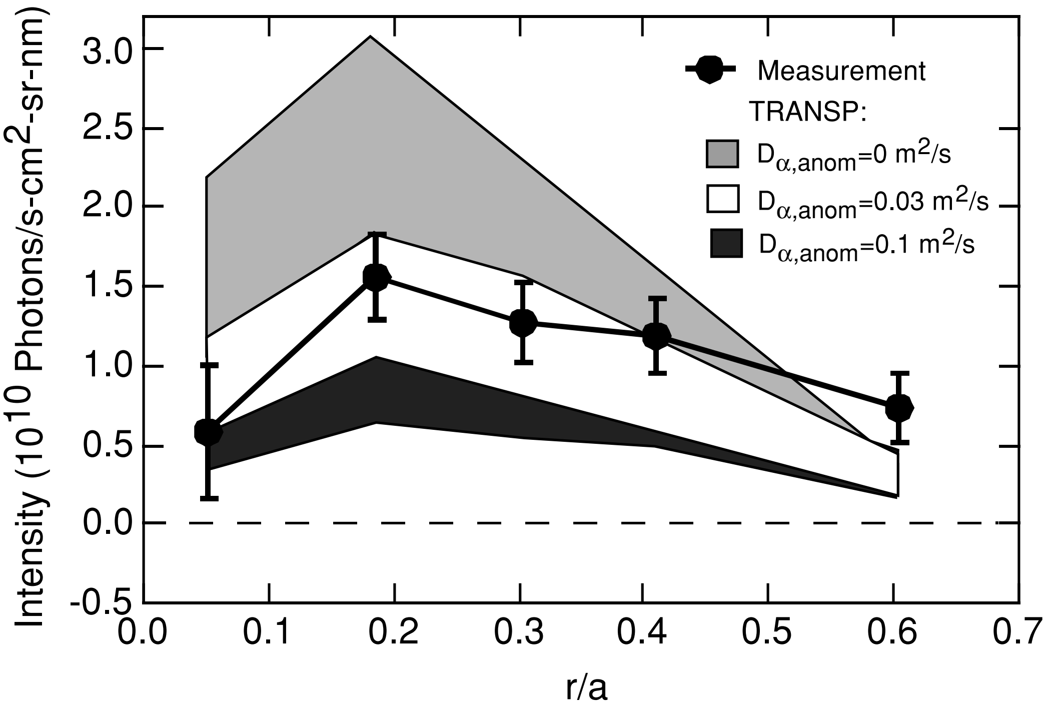
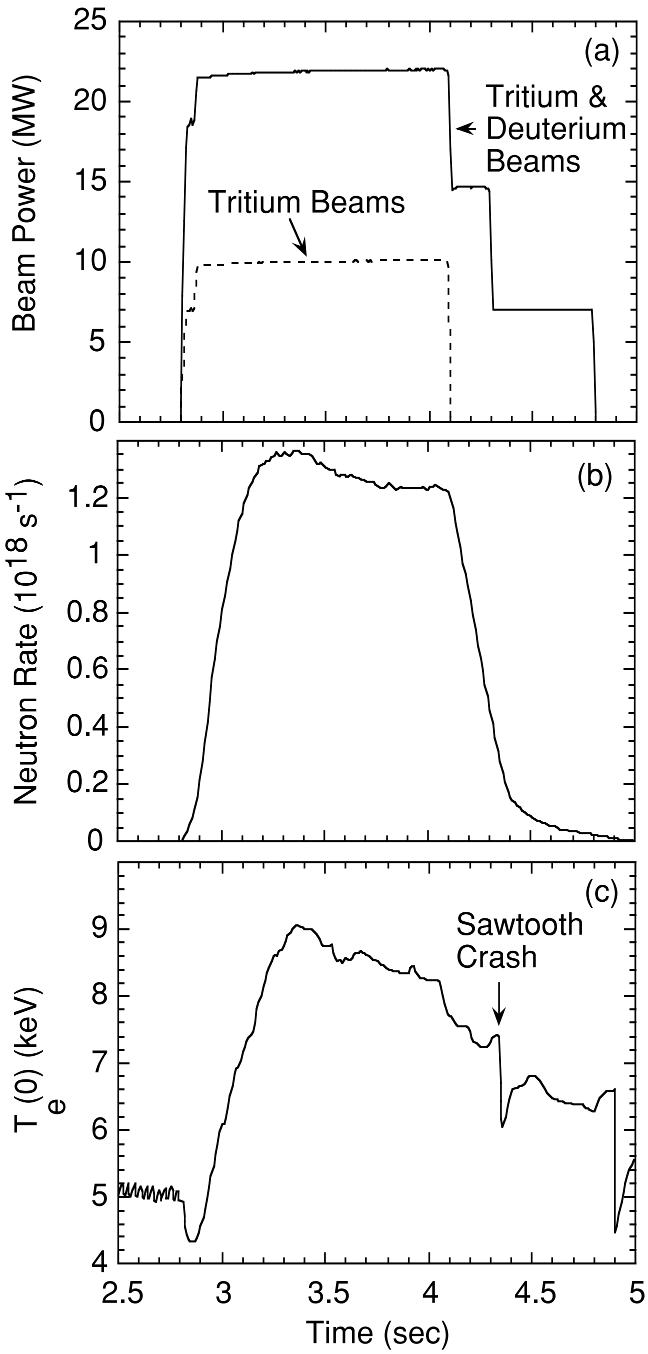

Measurement
TRANSP:
$D_{\alpha,anom}$=0 m^2/s
$D_{\alpha,anom}$=0.03 m^2/s
$D_{\alpha,anom}$=0.1 m^2/s
Intensity (10^{10} Photons/s-cm^2-sr-nm)
r/a
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7

Fig. 23



Beam Power (MW)
(a)
Tritium & Deuterium Beams
Tritium Beams
Neutron Rate (10^{18} s^{-1})
(b)
$T_e(0)$ (keV)
(c)
Sawtooth Crash
Time (sec)

Fig. 24

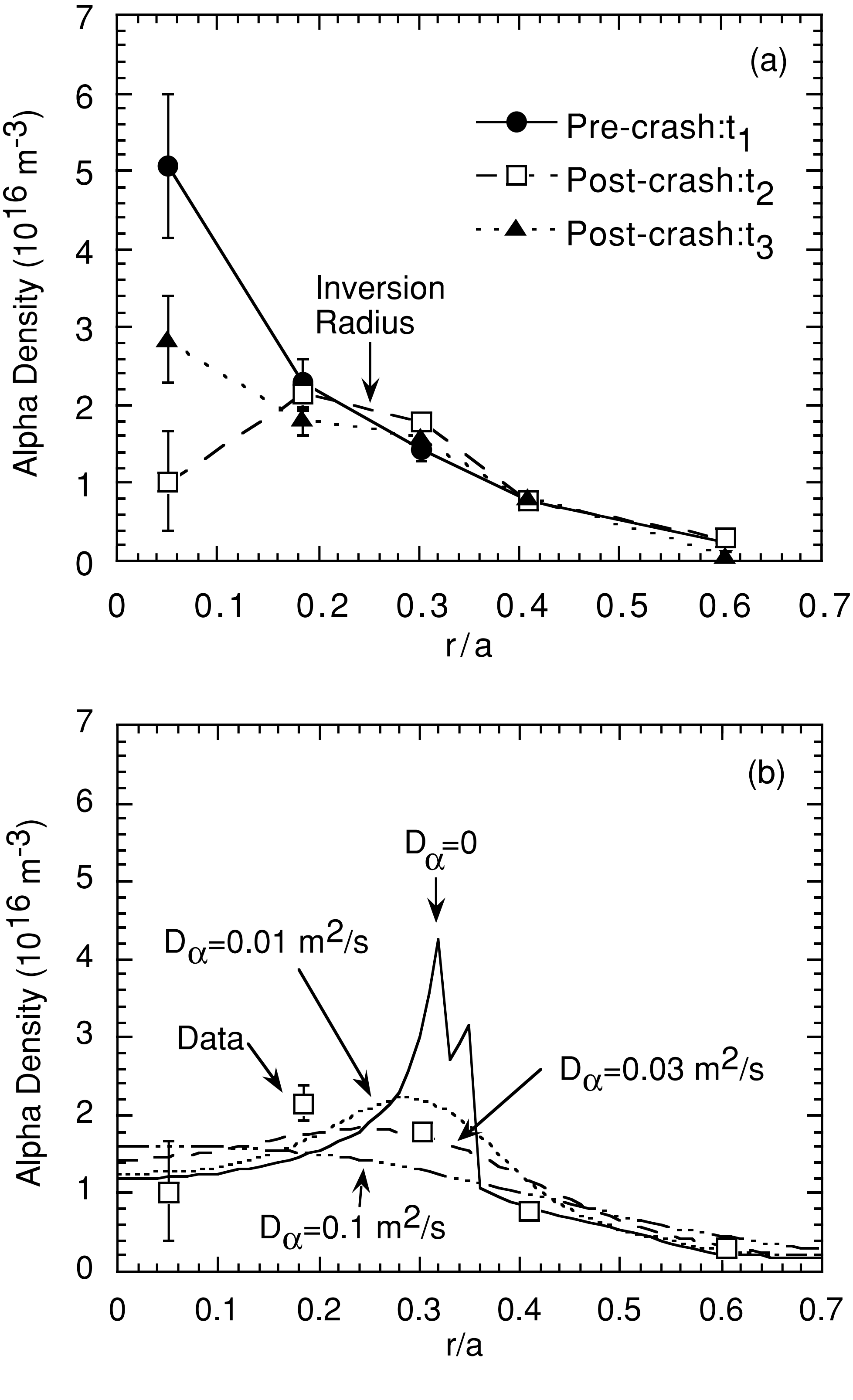

(a)
Pre-crash:t1
Post-crash:t2
Post-crash:t3
Inversion Radius
Alpha Density (10^16 m^-3)
r/a
(b)
Dα=0
Dα=0.01 m^2/s
Data
Dα=0.03 m^2/s
Dα=0.1 m^2/s
Alpha Density (10^16 m^-3)
r/a

Fig. 25