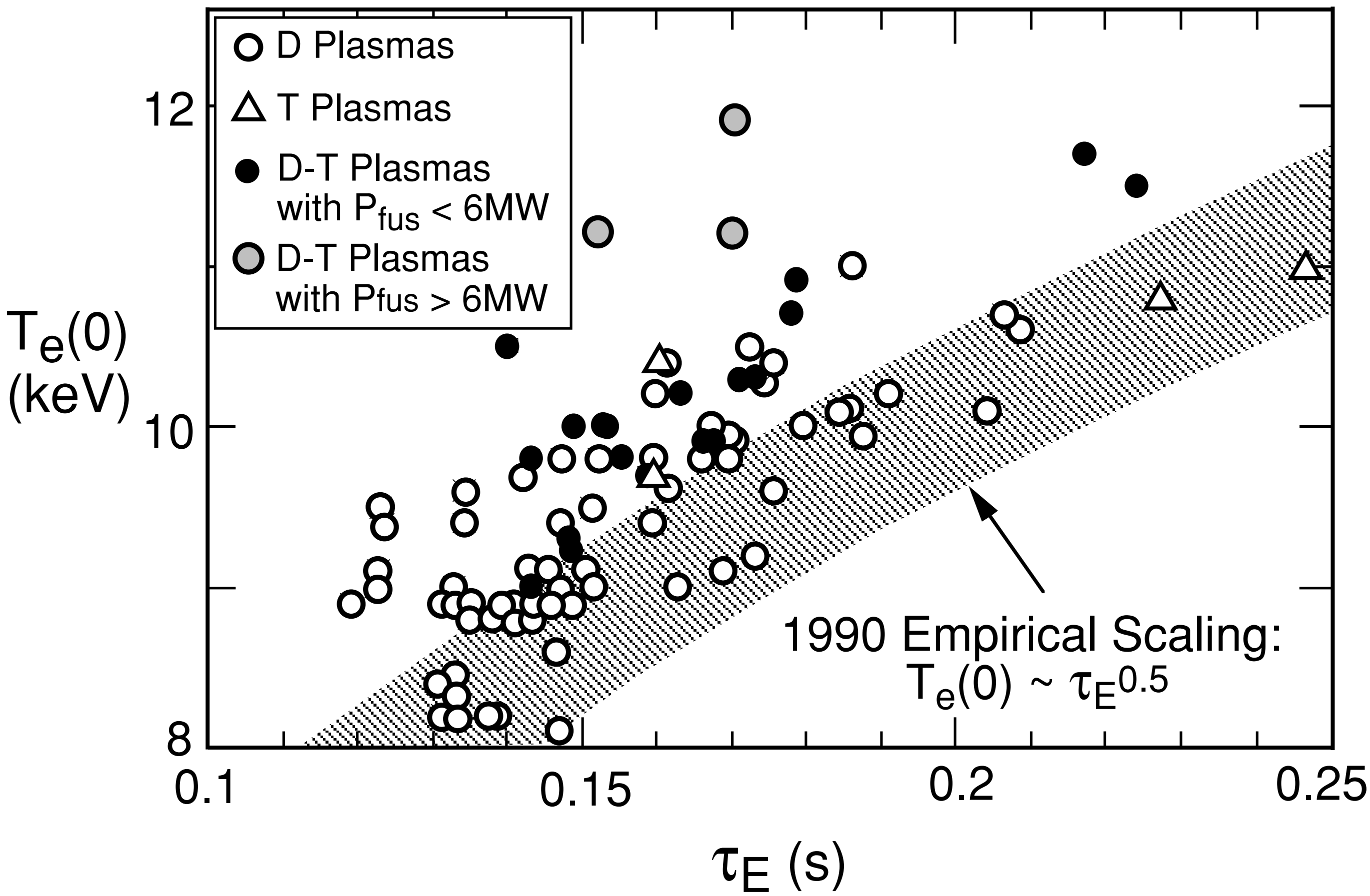
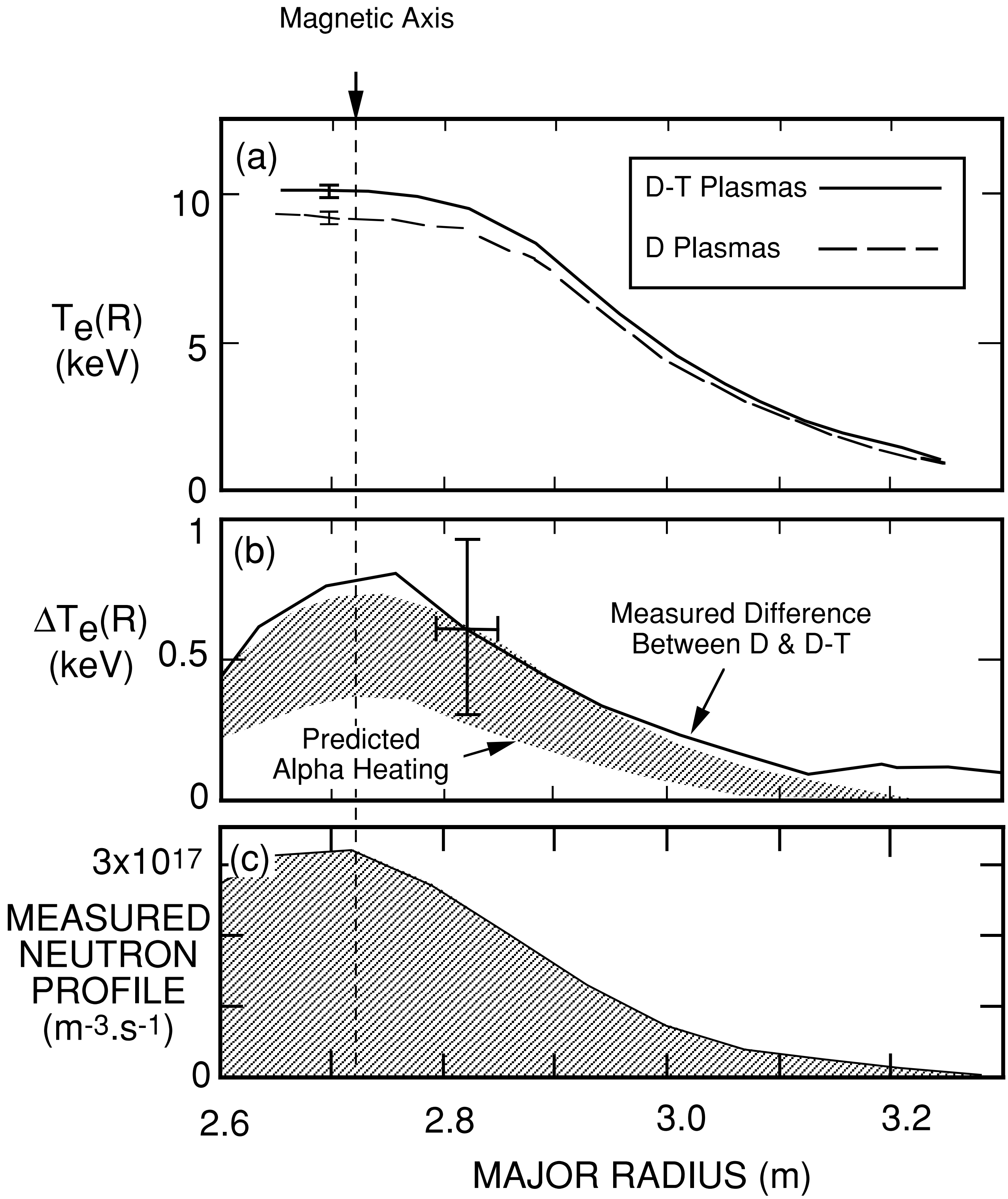
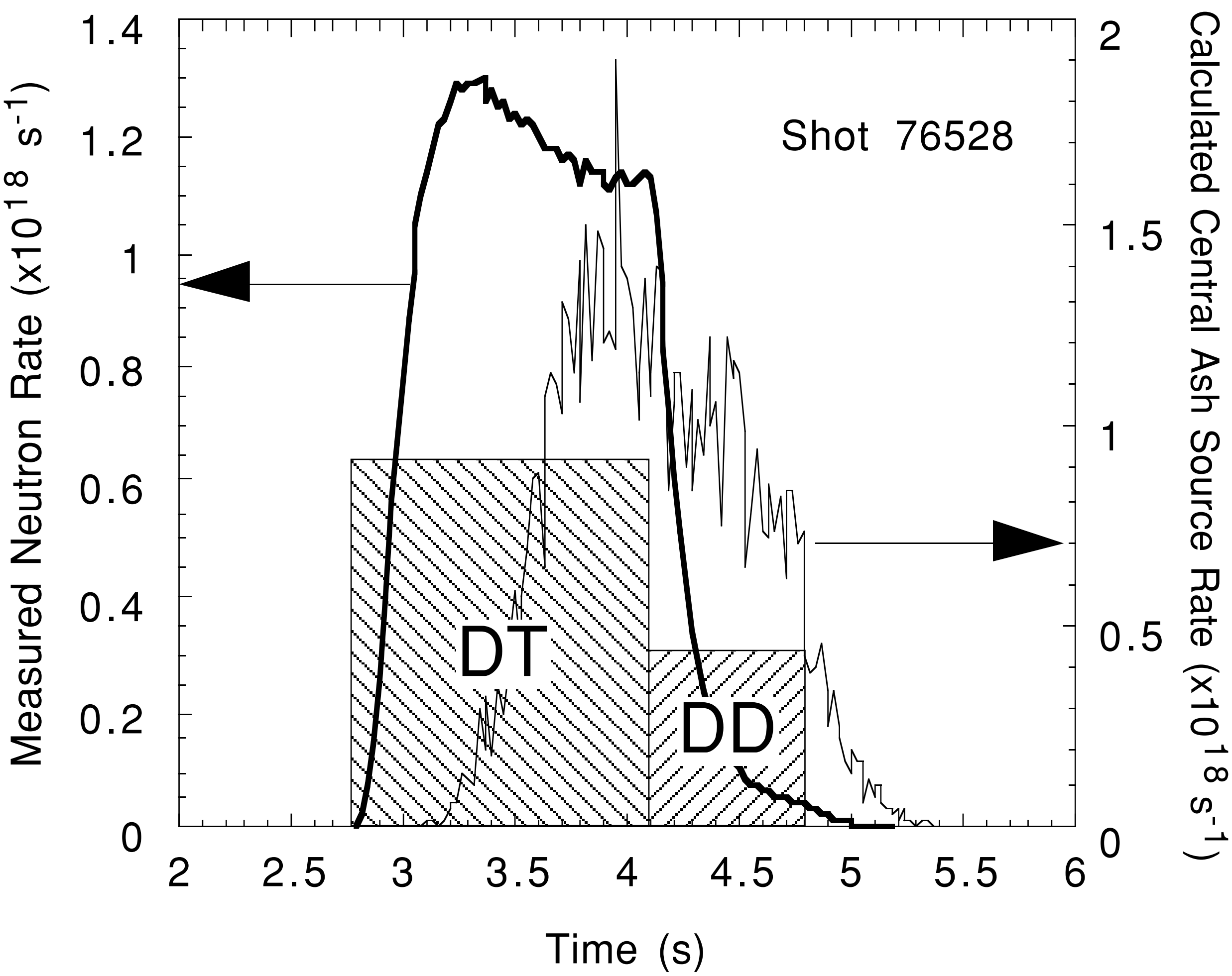

D Plasmas
T Plasmas
D-T Plasmas with P_{fus} < 6MW
D-T Plasmas with P_{fus} > 6MW
$T_e(0)$ (keV)
12
10
8
0.1
0.15
0.2
0.25
τ_E (s)
1990 Empirical Scaling:
$T_e(0) \sim \tau_E^{0.5}$

Fig. 26



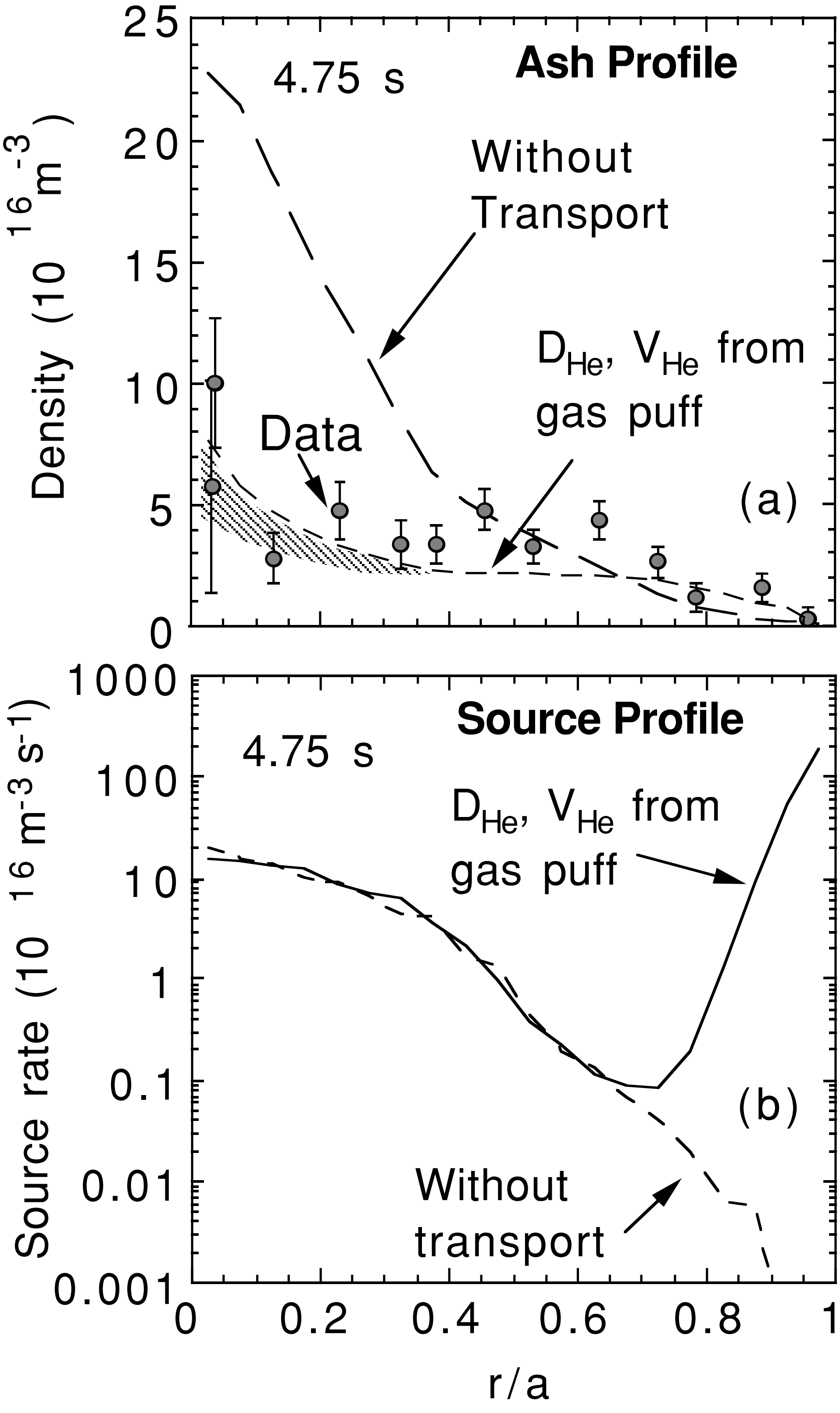
Magnetic Axis
(a)
D-T Plasmas
D Plasmas
$T_e(R)$ (keV)
10
5
0
(b)
$\Delta T_e(R)$ (keV)
1
0.5
0
Measured Difference Between D & D-T
Predicted Alpha Heating
(c)
$3x10^{17}$
MEASURED NEUTRON PROFILE ($m^{-3}.s^{-1}$)
0
2.6
2.8
3.0
3.2
MAJOR RADIUS (m)

Fig. 27



Shot 76528
DT
DD
Measured Neutron Rate (x10^18 s^-1)
Calculated Central Ash Source Rate (x10^18 s^-1)
Time (s)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0.5
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6

Fig. 28



Ash Profile
4.75 s
Without
Transport
D_{He}, V_{He} from
gas puff
Data
(a)
Density (10^{16} m^{-3})
25
20
15
10
5
0
Source Profile
4.75 s
D_{He}, V_{He} from
gas puff
(b)
Without
transport
Source rate (10^{16} m^{-3} s^{-1})
1000
100
10
1
0.1
0.01
0.001
0
0.2
0.4
0.6
0.8
1
r/a

Fig. 29

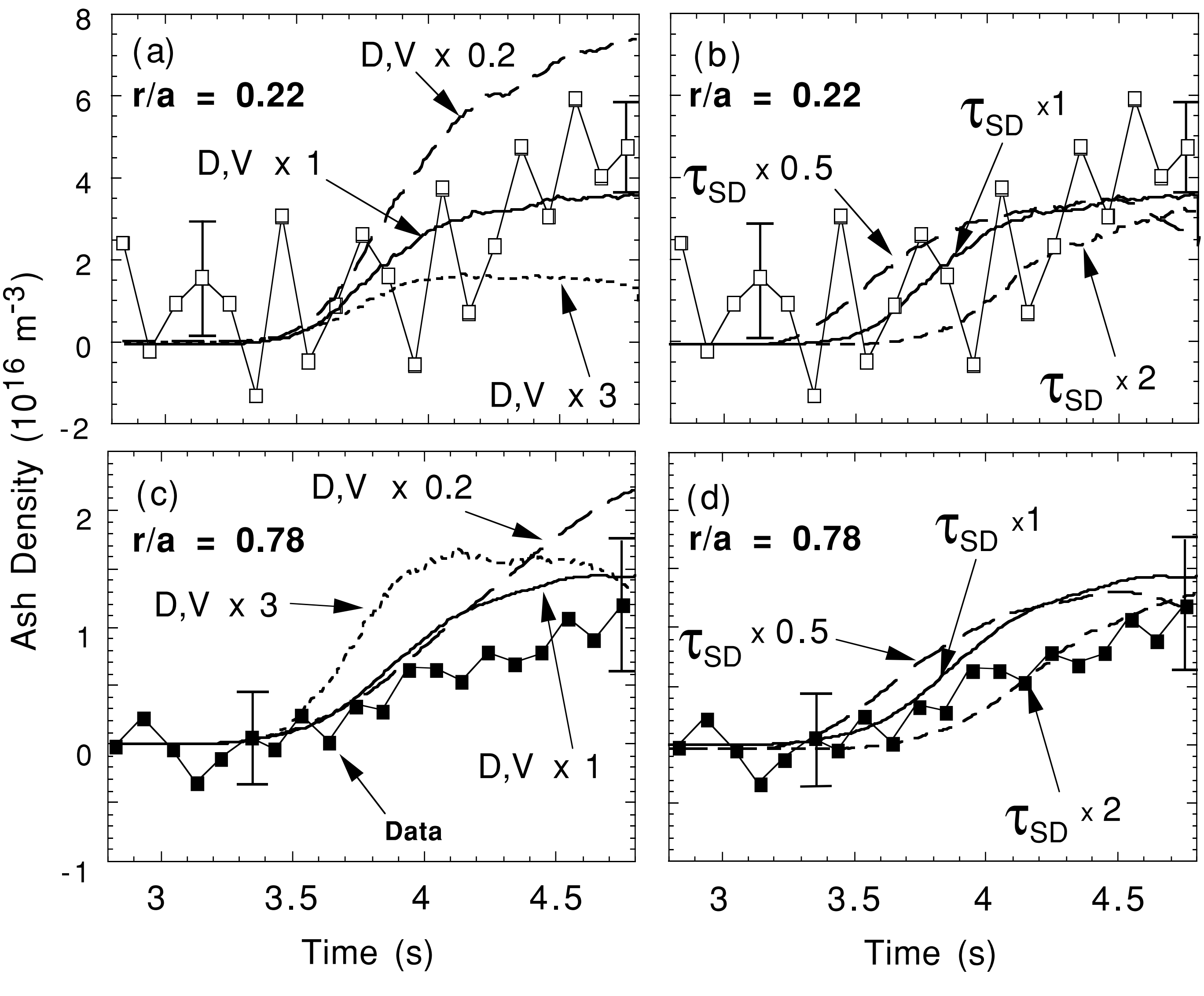

(a)
r/a = 0.22
D,V x 0.2
D,V x 1
D,V x 3
(b)
r/a = 0.22
τ_{SD} x1
τ_{SD} x 0.5
τ_{SD} x 2
(c)
r/a = 0.78
D,V x 0.2
D,V x 3
D,V x 1
Data
(d)
r/a = 0.78
τ_{SD} x1
τ_{SD} x 0.5
τ_{SD} x 2
Ash Density (10^{16} m^{-3})
Time (s)
Time (s)

Fig. 30