The rates (Rd) listed below are really only taking into account the rates from the deuterons so dAzz equation is:
dAzz = 4.0/Pzz/sqrt(f*Rd*time)

and the time needed to achieve dAzz is:
time = (16.0/(Pzz*dAzz)**2)/Rd/f_dil

Common parameters:
Wcut >=2.0GeV
bcurrent = 0.115 uA
tgt_len = 3.0 cm
Pzz = 20%

##########
1) Using ND3:
---
rho_nd3 = 1.007 g/cm3
dil_nd3 = 0.26 (from last Oscar's email)
pack_nd3 = 0.65 ! packing fraction
M_nd3 = 20.0 g/mole

1a) using F1 and F2 from PDFs:
---

| | x | Q2 | W | Ep | theta | Rd(Hz) | Azz | Azz_stat | time (days) |
|---|---|---|---|---|---|---|---|---|---|
| HMS | 0.55 | 3.81 | 2.00 | 7.31 | 12.50 | 27.077 | 0.15E-01 | 30.1% | 30.23 |
| SHMS | 0.15 | 1.21 | 2.78 | 6.70 | 7.35 | 503.349 | -0.51E-02 | 36.5% | 10.08 |
| SHMS | 0.30 | 1.50 | 2.09 | 8.34 | 7.33 | 457.023 | 0.48E-02 | 40.8% | 10.09 |
| SHMS | 0.45 | 2.58 | 2.00 | 7.96 | 9.85 | 71.026 | 0.12E-01 | 41.3% | 10.03 |

1b) using F1 and F2 from Bosted:
---

| | x | Q2 | W | Ep | theta | Rd(Hz) | Azz | Azz_stat | time (days) |
|---|---|---|---|---|---|---|---|---|---|
| HMS | 0.55 | 3.81 | 2.00 | 7.31 | 12.50 | 27.550 | 0.15E-01 | 30.1% | 29.71 |
| SHMS | 0.15 | 1.21 | 2.78 | 6.70 | 7.35 | 531.749 | -0.51E-02 | 36.5% | 9.55 |
| SHMS | 0.30 | 1.50 | 2.09 | 8.34 | 7.33 | 440.657 | 0.48E-02 | 40.8% | 10.47 |
| SHMS | 0.45 | 2.58 | 2.00 | 7.96 | 9.85 | 68.092 | 0.12E-01 | 41.3% | 10.46 |

*############*

2) Using LiD:

---

rho_lid = 0.82 g/cm3
dil_lid = 0.42
pack_lid = 0.65
M_lid = 9.0 g/mole

2a) using F1 and F2 from PDFs:

---

| | x | Q2 | W | Ep | theta | Rd(Hz) | Azz | Azz_stat | time (days) |
|---|---|---|---|---|---|---|---|---|---|
| HMS | 0.55 | 3.81 | 2.00 | 7.31 | 12.50 | 48.996 | 0.15E-01 | 17.6% | 30.25 |
| SHMS | 0.15 | 1.21 | 2.78 | 6.70 | 7.35 | 910.838 | -0.51E-02 | 21.4% | 10.04 |
| SHMS | 0.30 | 1.50 | 2.09 | 8.34 | 7.33 | 827.009 | 0.48E-02 | 23.8% | 10.15 |
| SHMS | 0.45 | 2.58 | 2.00 | 7.96 | 9.85 | 128.526 | 0.12E-01 | 24.2% | 9.99 |

2b) using F1 and F2 from Bosted:

---

| | x | Q2 | W | Ep | theta | Rd(Hz) | Azz | Azz_stat | time (days) |
|---|---|---|---|---|---|---|---|---|---|
| HMS | 0.55 | 3.81 | 2.00 | 7.31 | 12.50 | 49.854 | 0.15E-01 | 17.6% | 29.73 |
| SHMS | 0.15 | 1.21 | 2.78 | 6.70 | 7.35 | 962.230 | -0.51E-02 | 21.4% | 9.50 |
| SHMS | 0.30 | 1.50 | 2.09 | 8.34 | 7.33 | 797.392 | 0.48E-02 | 23.8% | 10.52 |
| SHMS | 0.45 | 2.58 | 2.00 | 7.96 | 9.85 | 123.216 | 0.12E-01 | 24.2% | 10.42 |