Target Lab Status

Cell Characteristics

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This is the summary of the characteristics of the three 40cm-cells.
All the EPR measurements were corrected by the polarization gradient. The statistical error on the maximum polarization is about 3% for each cell.

Cell (40cm)	Brunhilde	Exodus	Duke
Nominal Density (amg)	8.66	9.37	9.18
Volume Total (cm^3)	196.2	192.2	199.9
Volume PC (cm^3)	115.8	104.9	113.8
Volume TC (cm^3)	76.9	83.7	82.6
Flux (cm^2)	28.91	34.38	39.62

Cell (40cm)	Brunhilde	Exodus	Duke
$T_{predicted}$ (°C)	227.0	219.3	222.5
PC Density (amg)	6.91	7.39	7.28
TC Density (amg)	11.27	11.83	11.78
EPR calibration constant	5.38581	5.69731	5.63780
EPR-NMR calibration	(3.59 ± 0.04)%/mV	(2.79 ± 0.03)%/mV	(2.71 ± 0.03)%/mV
Max. NMR signal height	(13.18 ± 0.29) mV	(15.24 ± 0.28) mV	(14.90 ± 0.30) mV
Max. Polarization from EPR-NMR cal.	(47.3 ± 1.6)%	(42.5 ± 1.2)%	(40.4 ± 1.3)%

Cell (40cm)	Brunhilde	Exodus	Duke
longitudinal gradient (mG/cm)	6.9	7.8	7.6
AFP polarization loss (mV/sweep)	0.07 (0.6%)	0.10 (0.7%)	0.095 (0.7%)
Lifetime (hours)	40.5	44.1	48.2