

Target Lab Status

Cell Characteristics: Update

Patricia Solvignon

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With the last volume and flux values of Brunhilde and Exodus that Vince gave me and the water calibration constant change, the following tables summarize the cell analyses.

Cell (40cm)	Brunhilde	Exodus	Charly
Nominal Density (amg)	8.66	9.37	8.65
Volume Total (cm ³)	197.4	199.3	214.0
Volume PC (cm ³)	119.2	112.0	115.0
Volume TC (cm ³)	74.7	83.7	95.0
Flux (cm ²)	28.03	34.20	38.94

Cell (40cm)	Brunhilde	Exodus	Charly
$T_{predicted}$ (°C)	224.9	217.1	225.12
PC Density (amg)	6.98	7.46	6.73
TC Density (amg)	11.32	11.90	10.95
Calibration from water ($c_w = 0.072640$)	4.34%/mV	3.38%/mV	3.45%/mV
EPR calibration constant	5.42407	5.73336	5.23291
EPR-NMR calibration	3.64%/mV	2.89%/mV	2.59%/mV
Max. NMR signal height	13.20 mV	15.24 mV	14.48 mV
Max. Polarization			
from water cal.	57.3%	51.5%	49.9%
from EPR-NMR cal.	48.0%	44.0%	37.5%

Cell (40cm)	Brunhilde	Exodus	Charly
longitudinal gradient (mG/cm)	6.9	7.8	7.5
AFP polarization loss (mV/sweep)	0.07 (0.6%)	0.10 (0.7%)	0.06 (0.5%)
Lifetime (hours)	40.5	44.1	37.2