Duke: polarization optimization

Patricia Solvignon

June 17, 2002

Nominal Density (amg)	9.18
Volume Total (cm^3)	199.9
Volume PC (cm^3)	113.8
Volume TC (cm^3)	82.6
Flux (cm^2)	39.72
Water calibration	0.07461

Duke	3 lasers 170°C	3 lasers + 12W 170°C	3 lasers +12W 175°C	3 lasers + 12W 180°C
$T_{predicted}$ (°C)	226.6	248.2	252.0	257.3
PC Density (amg)	7.30	7.13	7.11	7.07
TC Density (amg)	11.75	11.97	12.0	12.1
EPR constant	5.68634	5.72236	5.73616	5.74497
EPR max. pol.(%)	???	(47.0 ± 0.7)	(46.3 ± 0.7)	???
water constant	2.87	2.82	2.81	2.80
NMR max. signal (mV)	(14.85 ± 0.28)	(16.43 ± 0.28)	(16.45 ± 0.30)	(15.77 ± 0.28)
NMR max. pol.(%)	42.63	46.3	46.2	44.15
EPR-NMR cali.(%/mV)	2.78	(2.87 ± 0.08)	2.82	2.79