

VLVNT Workshop Amsterdam

5 – 8 October 2003

**A G Wright
Electron tubes Ltd
Bury street
Ruislip
UK**

Hemispherical photomultipliers

Range of hemispherical photomultipliers

Type	D(mm)	dynodes	jitter(ns)	
9116	25	6	1.0	high light level
9114	25	10	1.2	
9117	38	6	1.1	high light level
9372	130	12	2.7	
9350	200	14	8	high collection efficiency
9352	200	6	6	high light level
9353	200	12	2.7	low background glass
D737	230	12	2.7	
D738	250	12	2.8	
9360	280	12	3.0	

Glass characteristics

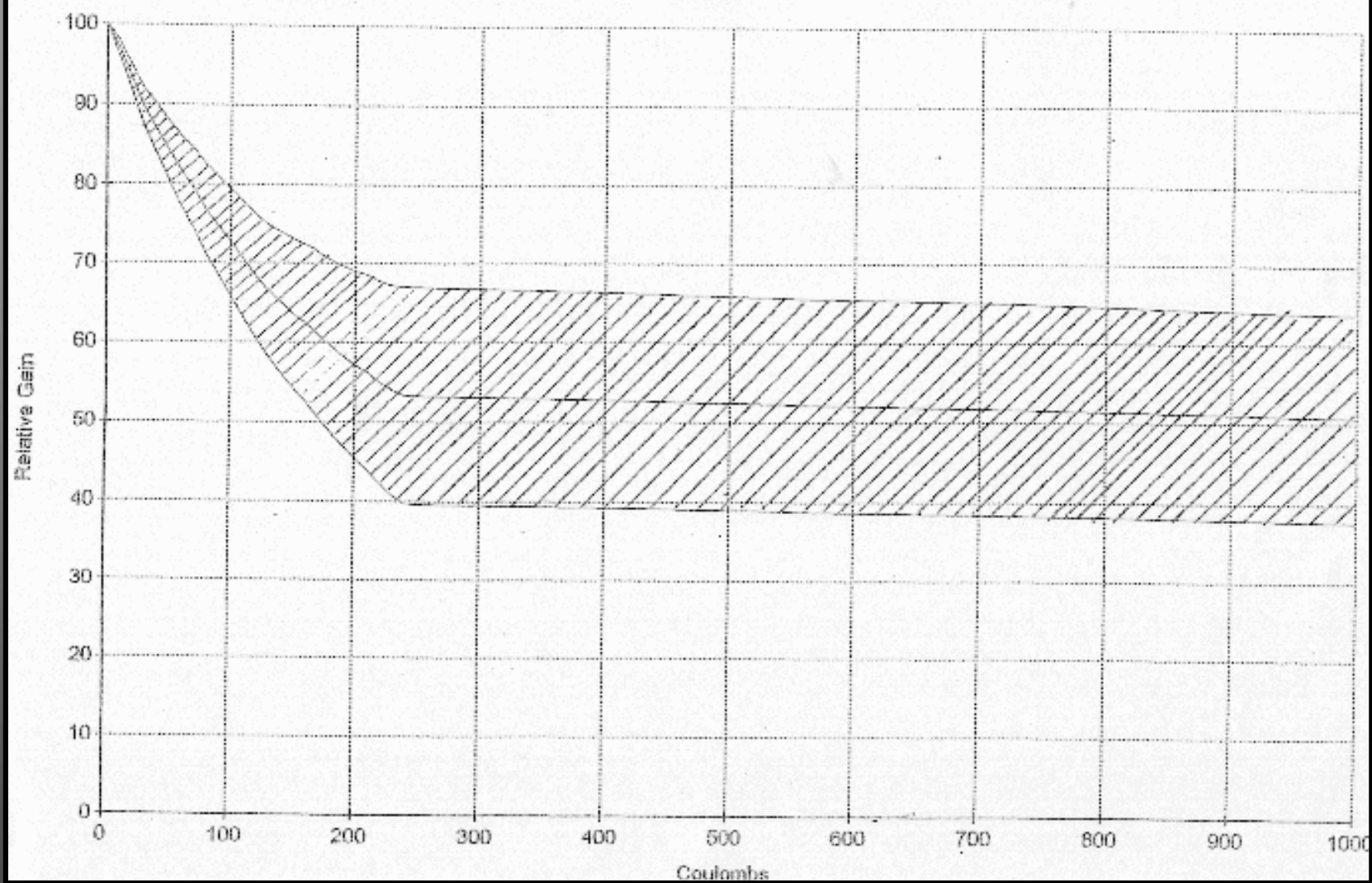
Thickness: ranges from 2 to 4 mm depending on diameter

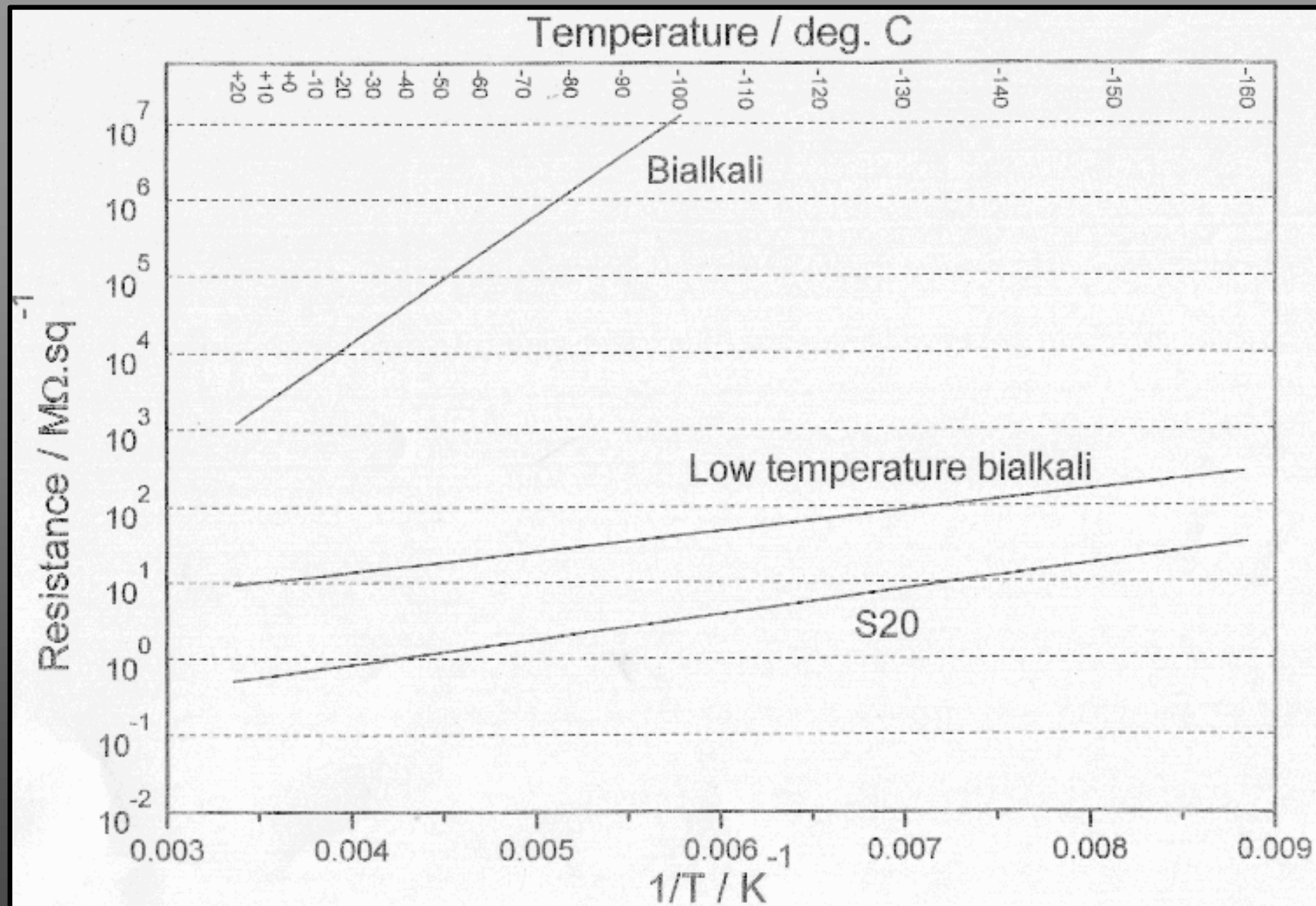
Pressure: 2 to 2.5 atmospheres

Radionuclides:

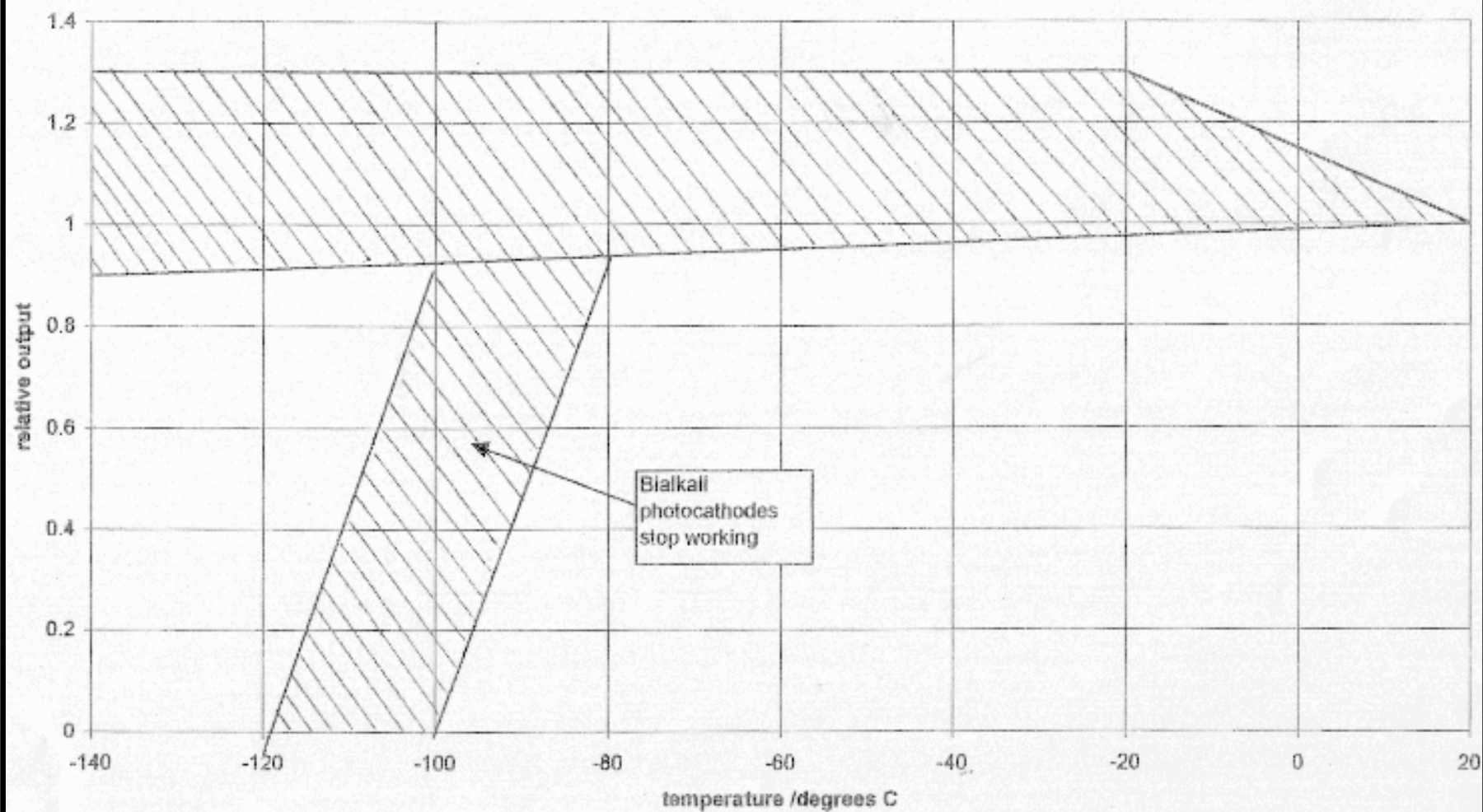
	K(ppm)	Th(ppb)	U(ppb)
8246	30	30	30
B53	60	30	30
B47.2	300	250	100
8245	1400	900	1100

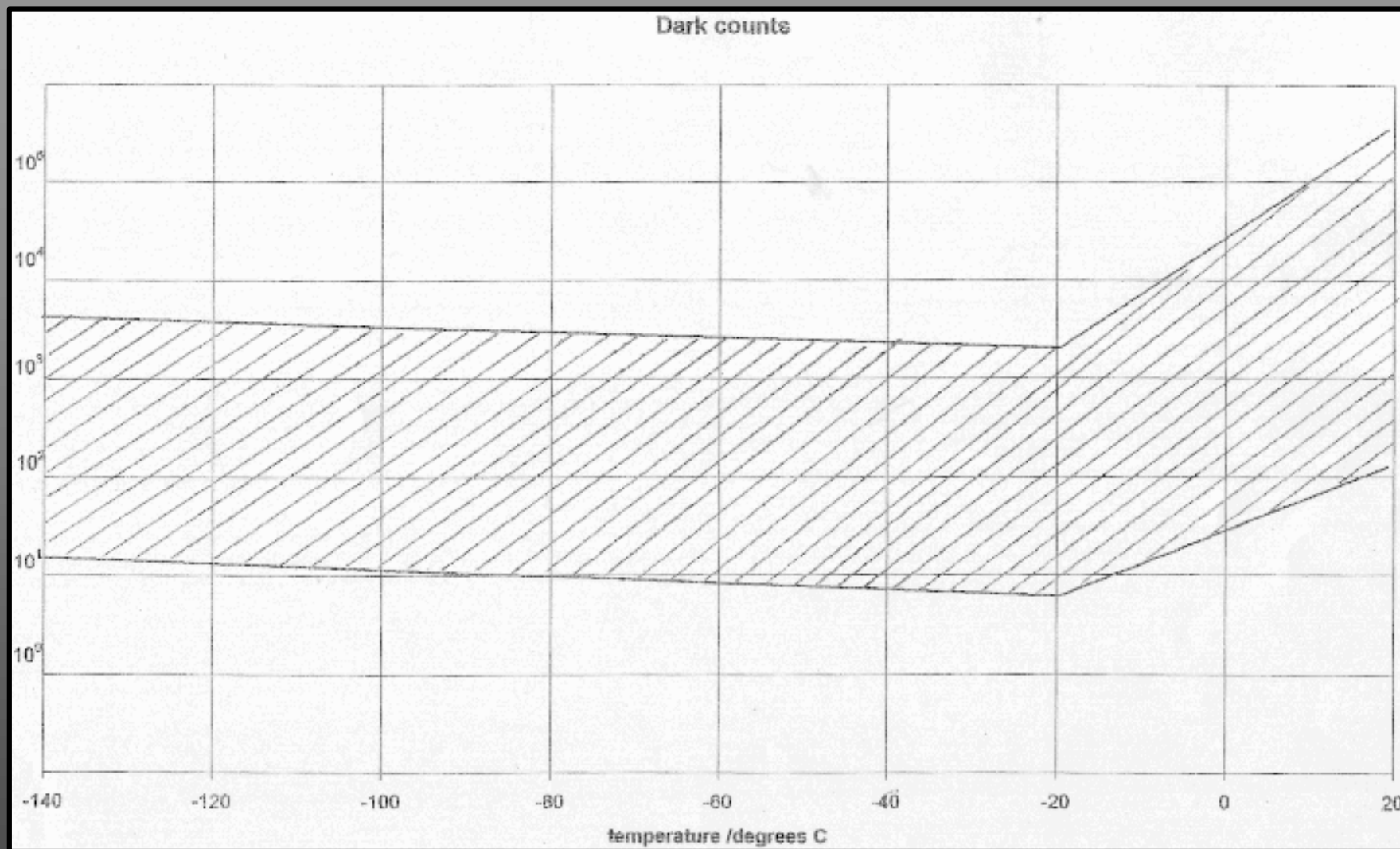
Photomultiplier lifetime
Antimony Caesium Dynodes

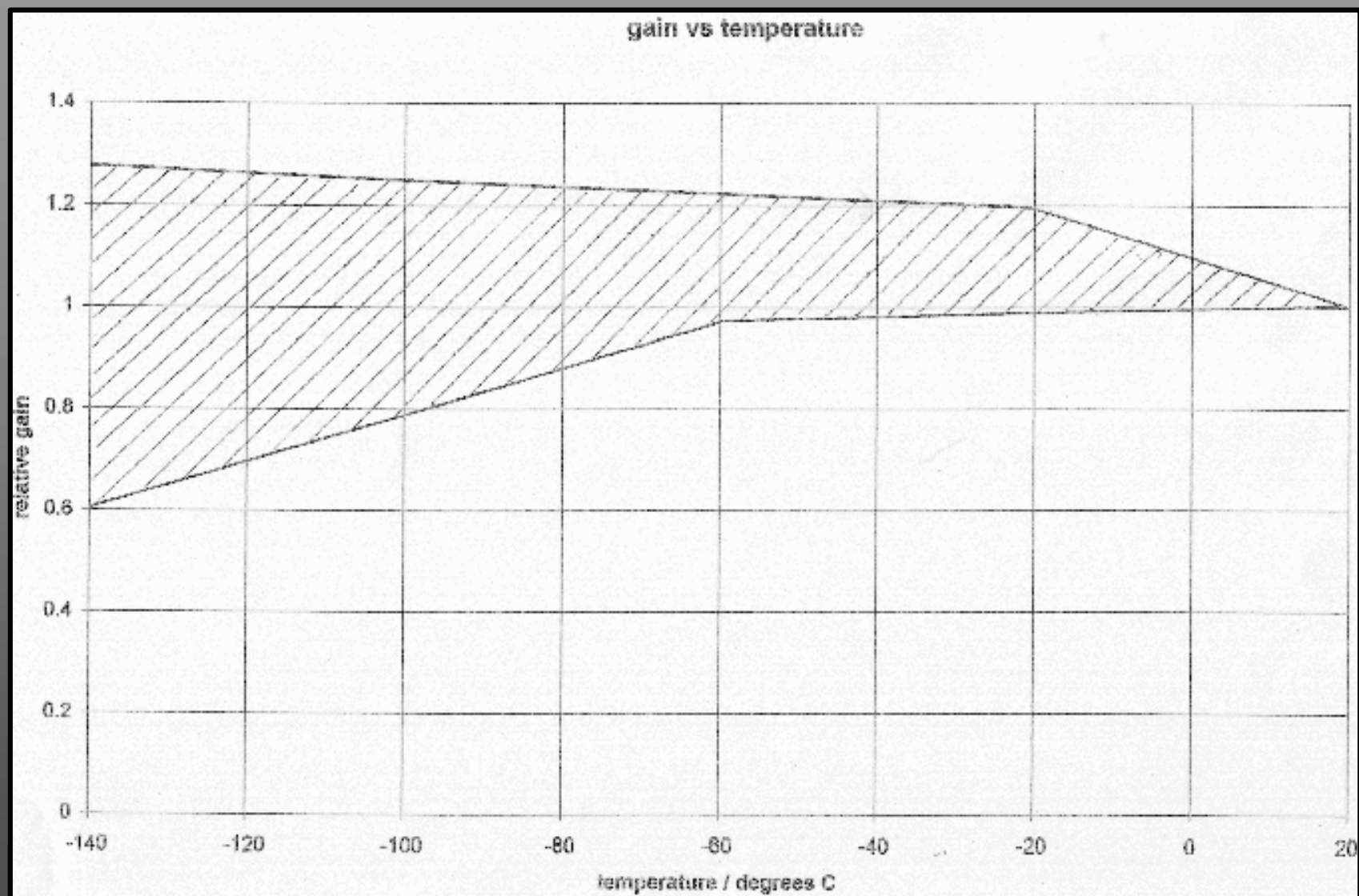




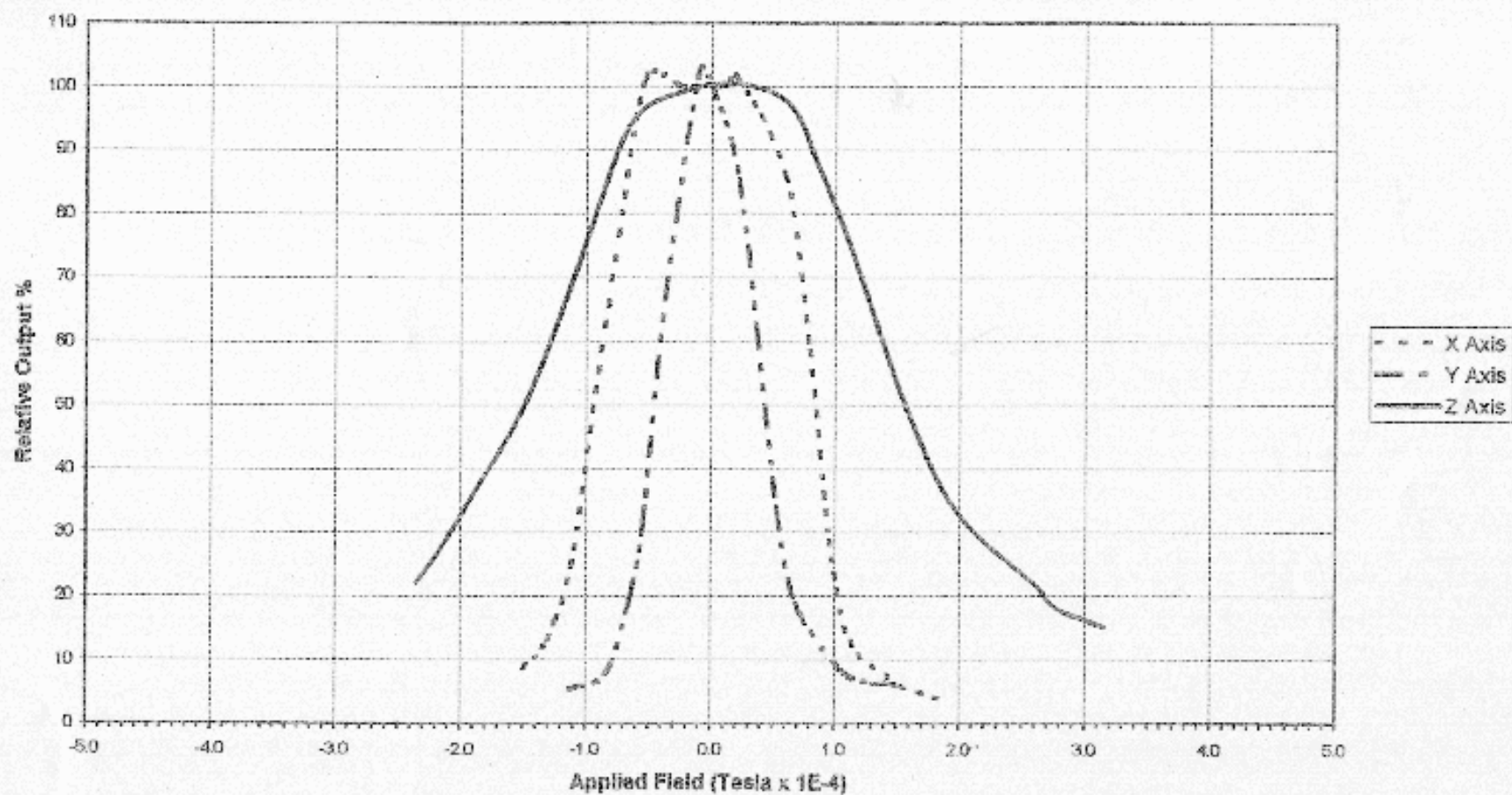
Response to 10^4 photoelectron pulses



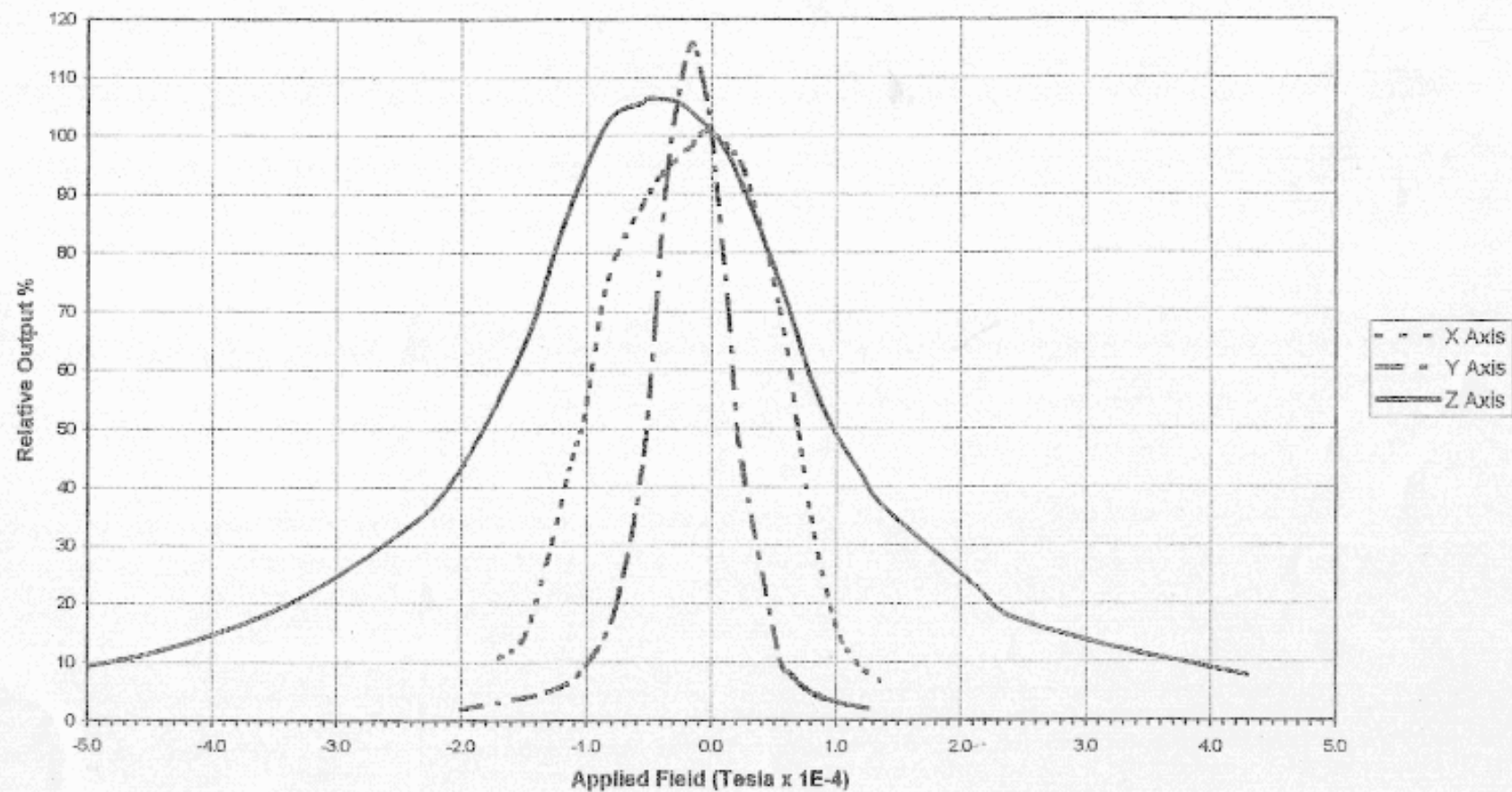




Magnetic Sensitivity for PMT Type 9351, 600 V k-d1.

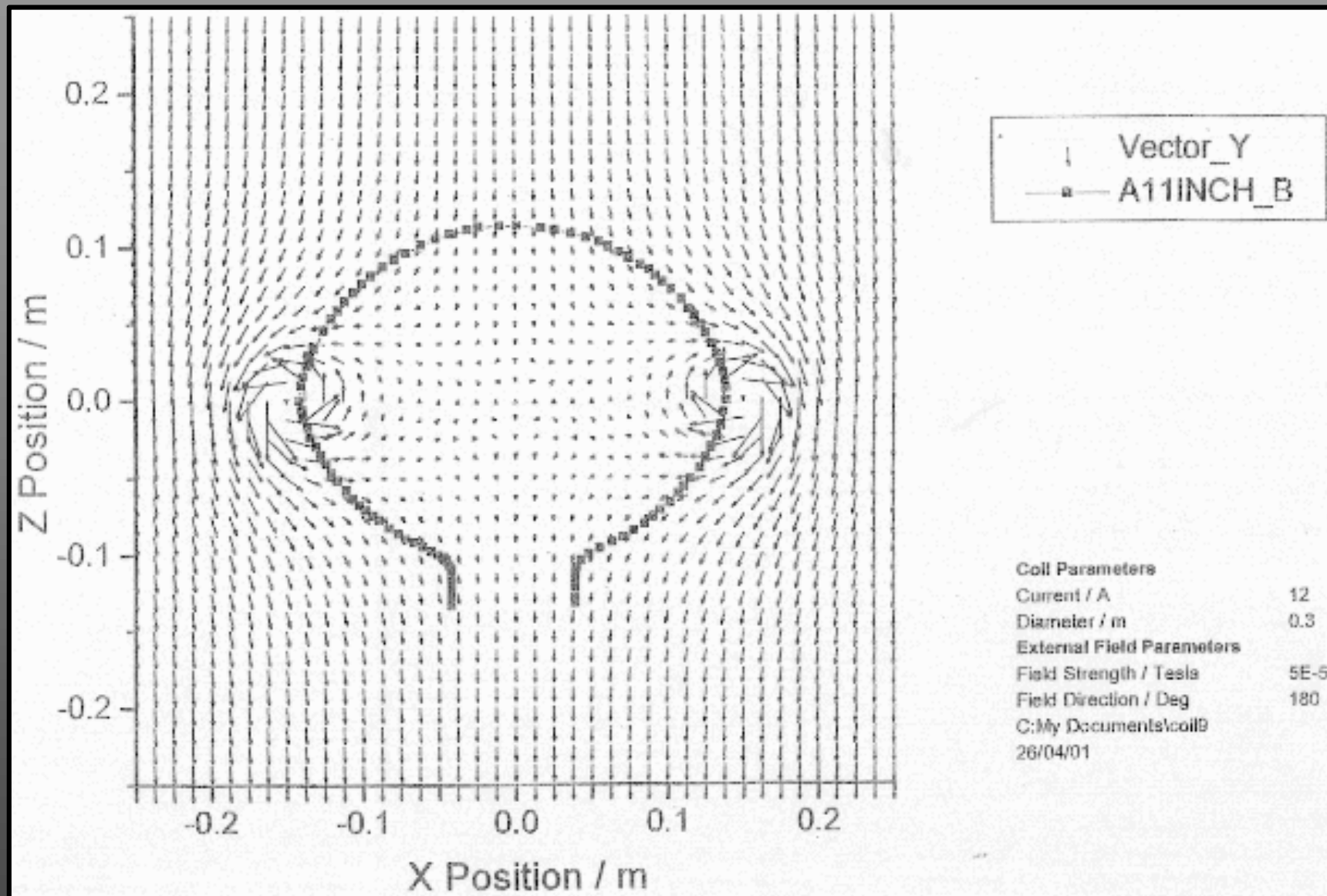


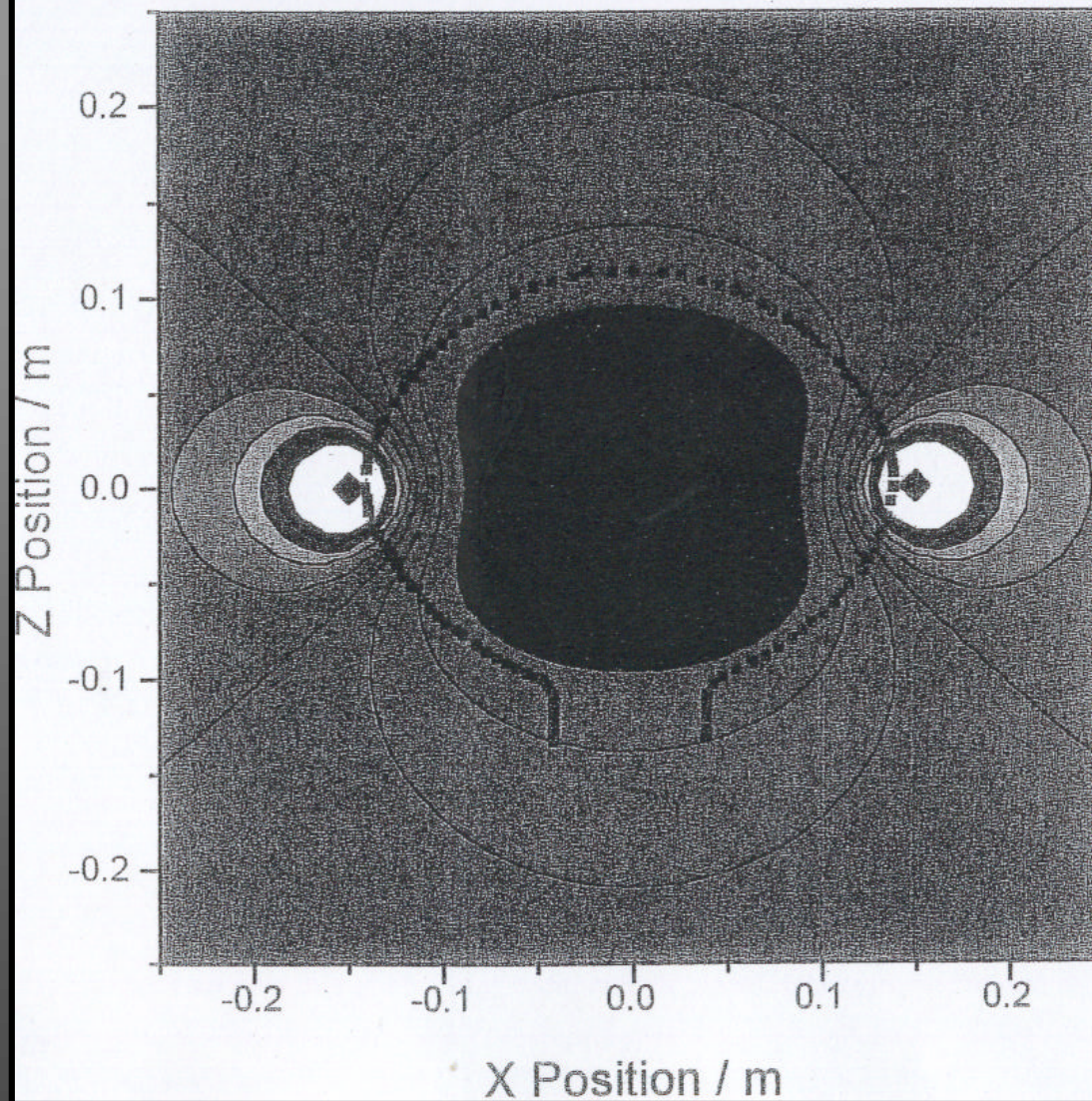
Magnetic Sensitivity for PMT Type 9360, 600 V k-d1.



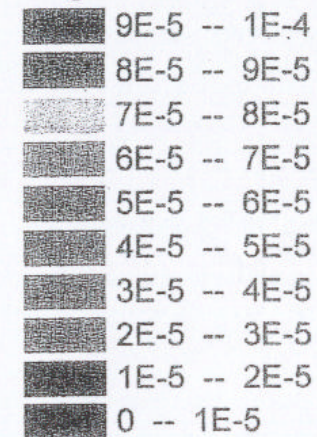
9360KFL.xls

01/10/2003





Magnetic Field Strength / Tesla



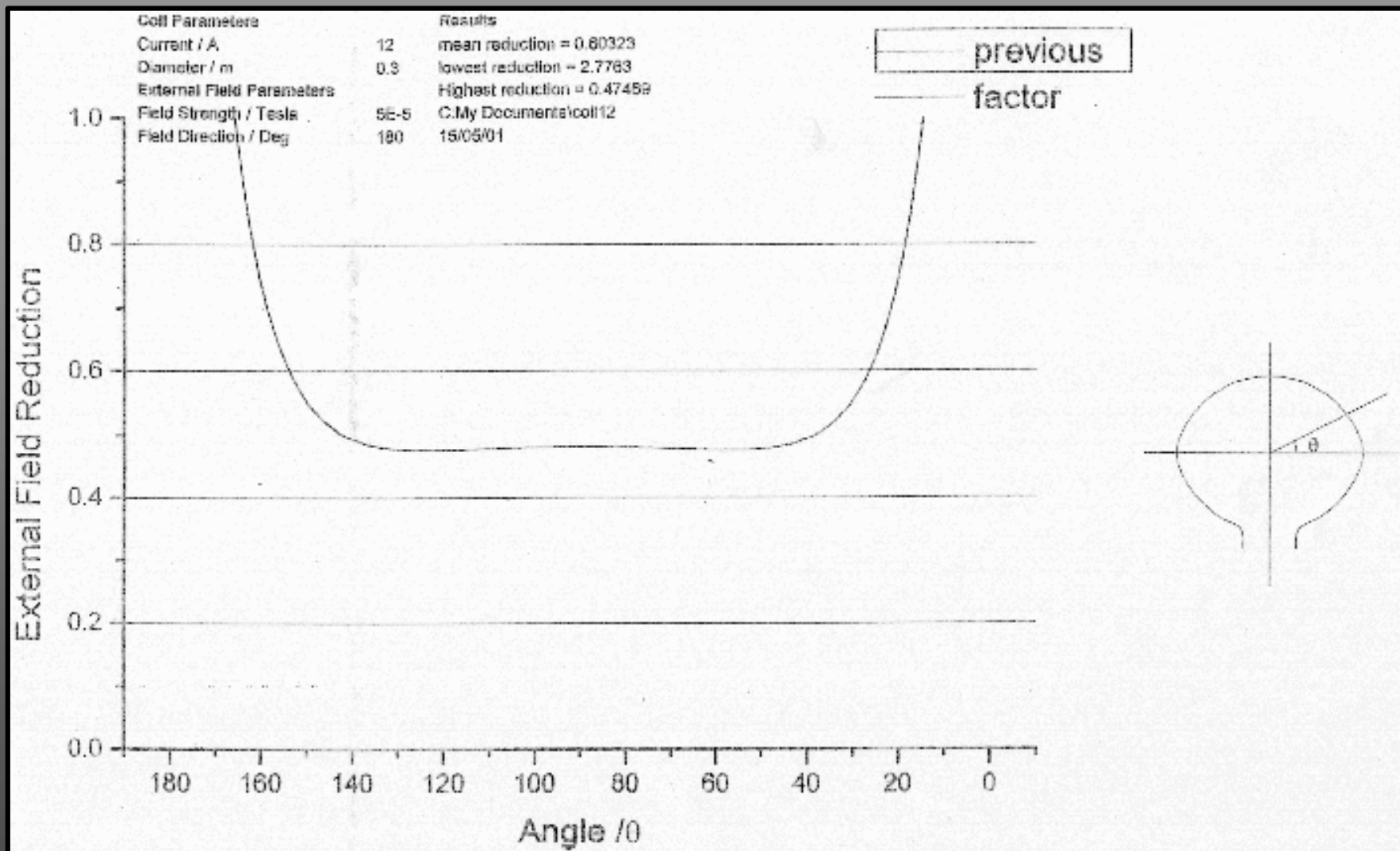
Coil Parameters

Current / A 12
Diameter / m 0.3

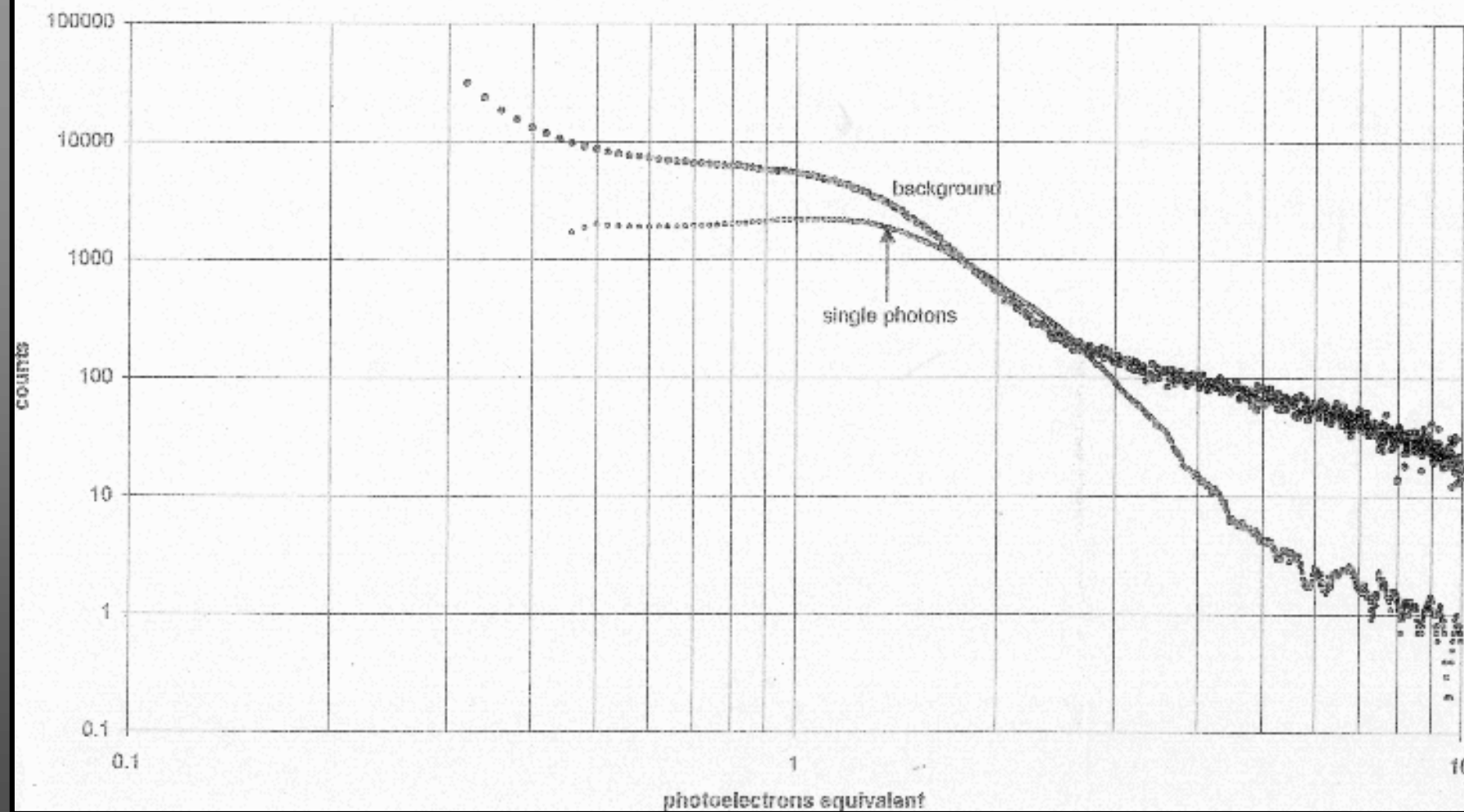
External Field Parameters

Field Strength / Tesla 5E-5
Field Direction / Deg 180
C:\My Documents\coil9
26/04/01

—■— A11INCH_B



Signal and background spectra for 9" D737



afterpulse spectrum for 9360, 11"

